

the **myrada** experience

A MANUAL FOR
CAPACITY BUILDING
OF
PEOPLE'S INSTITUTIONS
MANAGING WATERSHEDS

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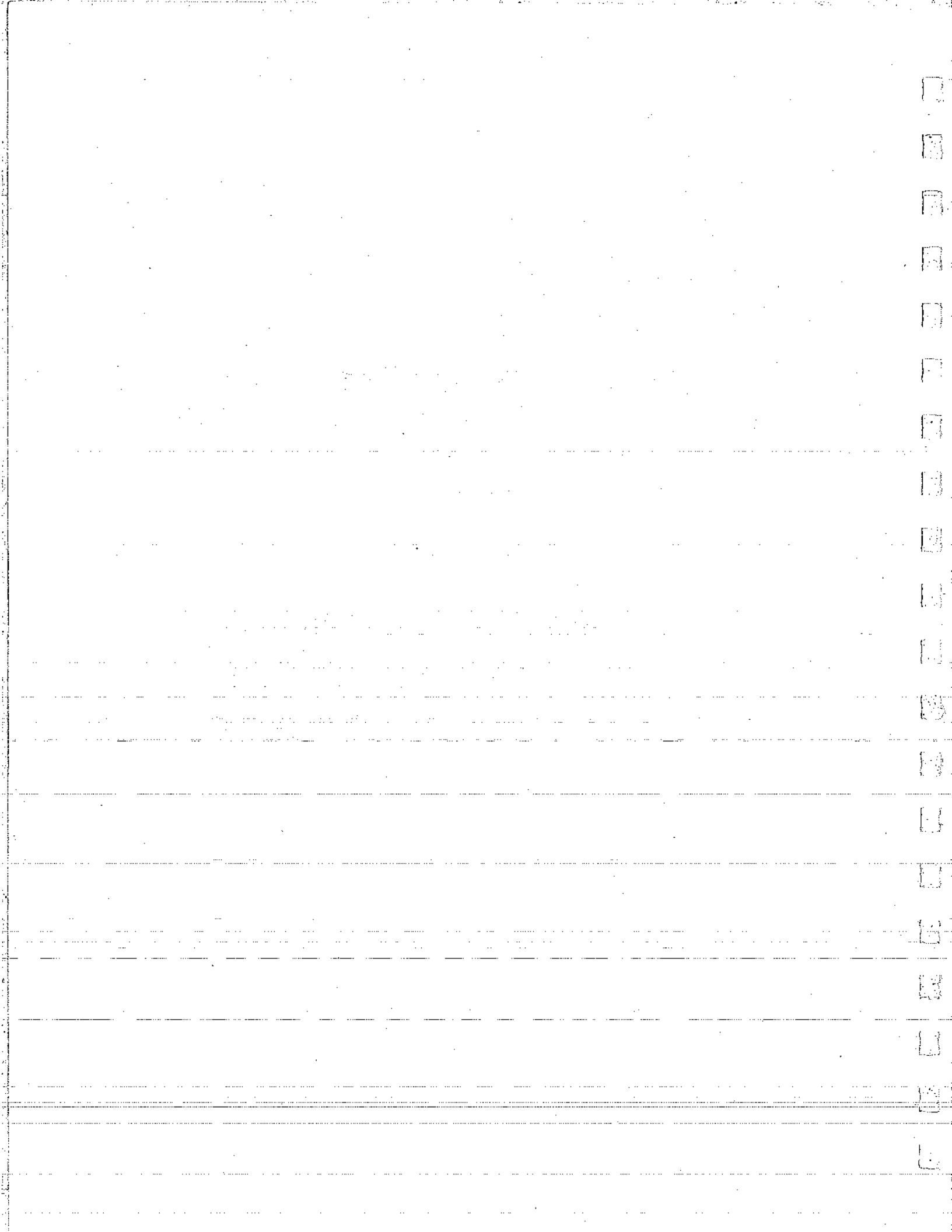
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The MYRADA Experience

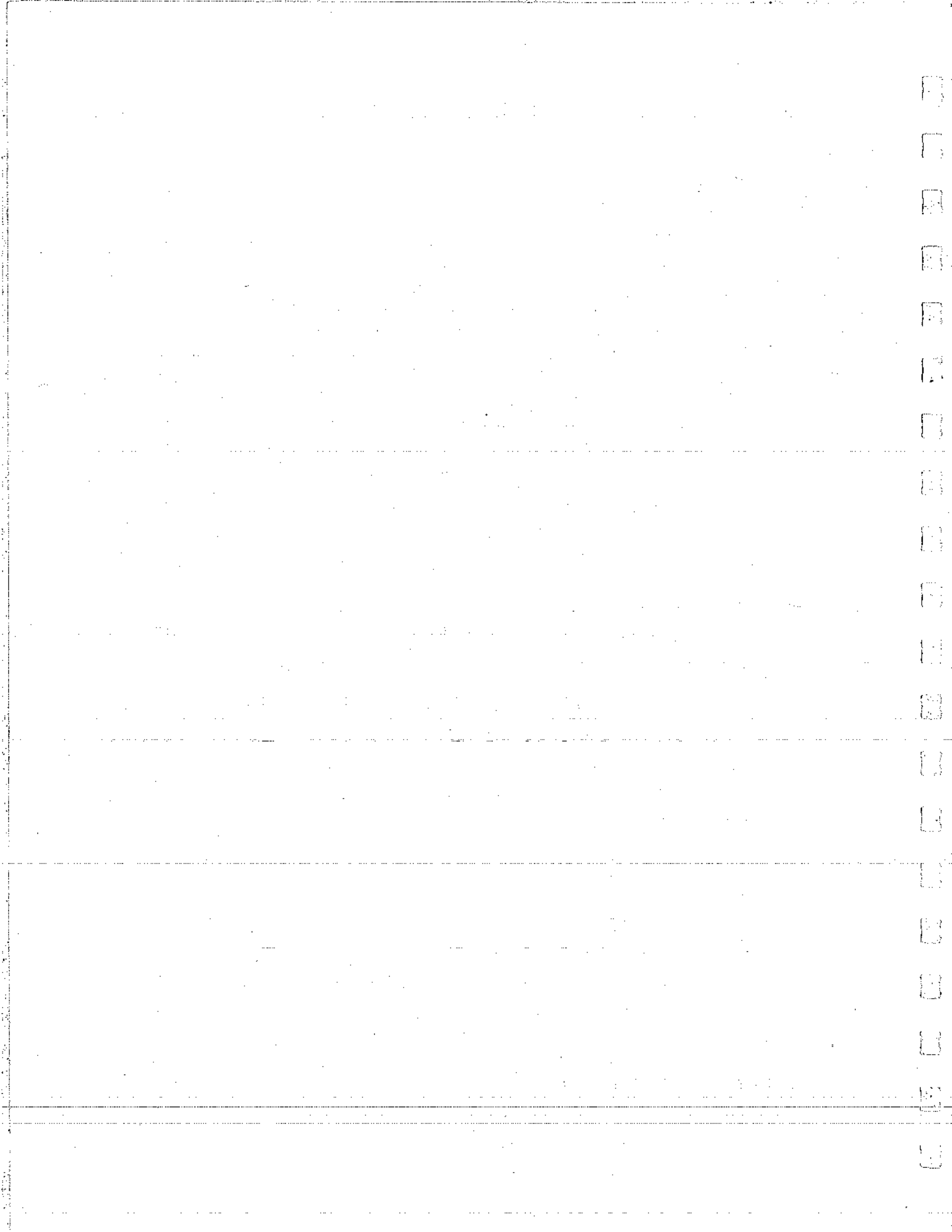
A Manual for

**CAPACITY BUILDING OF
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Foreword

The Integrated Watershed Development Programme was launched by the Ministry of Rural Development in 1995. The key words in the strategy are "integration" and "participation". Integration was mainly achieved by an integration of funds formerly sanctioned under various watershed programmes. Participation of people was interpreted to mean people's involvement in identifying, planning, and implementing the programme. NGOs were given the lead role in mobilising people's participation. While the role of NGOs has been diminished in the revised Hariyali Guidelines (2003) their involvement in watershed programmes during the past 10 years has resulted in significant improvement in the level of people's ownership of the programme. This has resulted in improvement in the quality of treatment structures and reduction in costs. The training modules in this Manual are all driven by a participative methodology and by a strategy which promotes the participation of all stakeholders in a micro watershed.

However, until "integration" is effectively achieved, the impact of the intervention will not be as sustainable as intended. Integration as understood in MYRADA is not only integration of funds from various programmes but also the integration of institutional arrangements required to promote and maintain infrastructure, market linkages, input provision and diversification of livelihoods and value addition to every product. An integrated strategy is also one that includes both private lands (both cultivated and fallow) as well as lands coming under the Forest Department, Revenue or Panchayat, whether encroached or not, especially if they are degraded and vulnerable. Integration also requires increased investment in critical areas of a watershed where treatment has a major impact on the whole watershed. Experience in MYRADA's projects overwhelmingly proves that investment in the upper reaches of the micro watershed which is usually degraded forest or revenue lands has a significant impact on reducing erosion and increasing water retention capacity in the entire catchment, thereby reducing risks and increasing productivity. Hence the entire land surface of the micro watershed needs to be treated and managed, not just the private cultivated lands.

MYRADA's experience leads it to believe that for ownership to be sustained and genuine integration to take place the intervention strategy must be led not just by people but also by people's institutions. In other words, sustained ownership and integration need an institutional basis apart from the individual farmer's commitment to his/her fields, to ensure that treatment measures to prevent erosion and increase water retention are maintained. Integration, MYRADA believes, can be achieved only if it is driven from below, namely by institutions in which all the stakeholders in the watershed are involved. It is these institutions which must be in a position to decide where treatment measures need to be implemented and how to implement them. It is only these institutions of people which can respond to the needs emerging after successful implementation of a watershed programme. These emerging needs could be for larger and more diversified inputs, for higher quality services in the areas of agriculture and animal husbandry, for more effective

linkages with supporting institutions providing technology and skills, for lobbying with government to provide and improve infrastructure like roads, storage and transport and for change in oppressive relations. Individuals cannot achieve these objectives independently; they need institutions which are appropriate to take on the functions that support people's needs.

The impact of watershed programmes is more in the long term even after the so-called project is over; this requires that institutions of the stakeholders emerge which can continue to sustain the impact of the project investment and to open new linkages and opportunities.

This Training Manual focuses on building one of the institutions of stakeholders in a watershed namely the Watershed Development Association (WDA). However, to place the WDA in context it may be useful to stress that it is not the only people's institution that needs to be promoted. There are two other types of institutions which are part of MYRADA's Watershed Management Strategy namely the SAGs (Self Help Affinity Groups) and the Resource Centres. The three categories are briefly described below.

■ **Institutions that promote the objectives of equity and gender balance in a watershed programme:**

The major institution promoted by MYRADA to achieve these objectives is the Self-help Affinity Group. These are groups of people, largely of women from the economically weaker sections of the village community, the landless poor families, marginal dryland farmers, artisans, labourers, etc. These categories of people are dependent on watershed resources for their livelihoods in many ways, for e.g. on the labour available mainly on agricultural lands; on the common lands for fruits, fuel, fodder, fertiliser, on raw materials for income generation activities, etc. The training modules for the capacity building of the SAGs have been published by MYRADA several years ago and have been translated into Hindi (by Swashakti), Bengali (in Bangladesh), Kannada (by KAWAD), Myanmar and Basha Indonesia. The Manual is entitled "Capacity Building for Self Help Affinity Groups".

■ **Institutions that promote the integrated and sustained management of natural resources in a watershed. The main institution which emerged is the Watershed Management Association (WDA), also called User Groups (in the Hariyali Guidelines) or Area Groups:**

These groups were originally promoted by MYRADA in the late 80s and comprise stakeholders in a micro catchment of about 100-150 ha. The average number of families involved ranged from 25 to 35. They emerged in response to the difficulties faced by MYRADA in promoting a Watershed Association covering a watershed of 500-750 ha. where over 100 families were involved as stakeholders. These were supposed to be participatory bodies in which all the stakeholders are members and attend all meetings. The problem with this strategy was that it was difficult to involve all the farmers/stakeholders. Effective participation of all in decision-making was impossible. Because of their large size, they usually elected representatives to an Executive Committee which

carried out all functions. They were thus converted into representative bodies. MYRADA realised that power in decision-making was gradually captured by the Executive Committee whose members were usually from the more powerful and well-to-do families. This led to further pilot experiments to identify a more appropriate structure. MYRADA's past experience of working with village communities proved that smaller participatory groups in which all stakeholders are members function more effectively as institutions. Around 30 to 40 members form an ideal group size to conduct meetings and trainings, and to ensure participation of all members in decision-making. These smaller groups responsible for planning, budgeting, implementation, monitoring and management came to be known as Watershed Development Associations (WDAs) in MYRADA's watershed projects. They are now called Area Groups and User Groups in Government sponsored programmes. **This Manual deals with the capacity building of these Watershed Development Associations/User Groups/Area groups.**

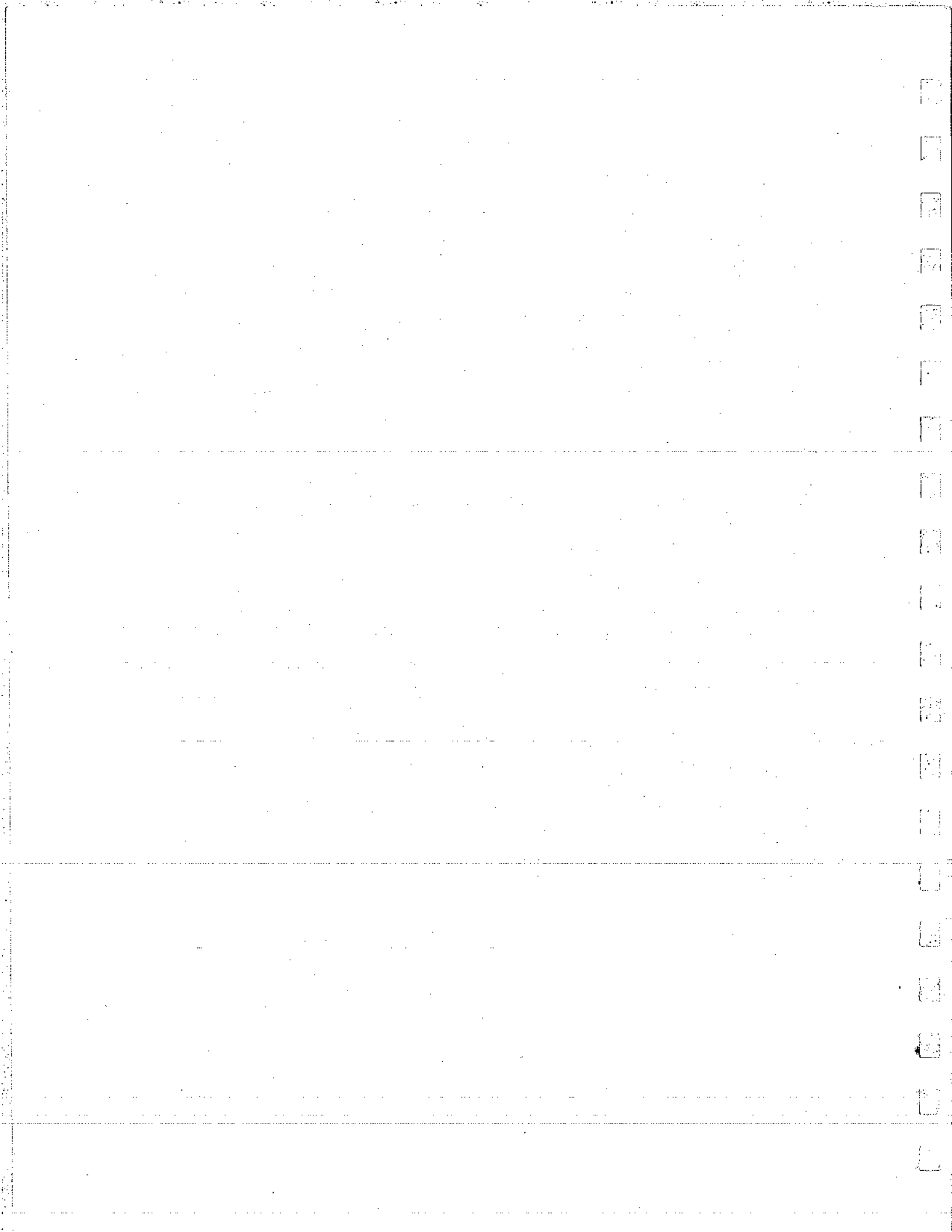
■ Institutions that promote linkages with other institutions which provide technical services to upgrade and diversify farm and non farm livelihoods, inputs to follow up these technical services and insurance to cope with risks, which respond to people's emerging needs to establish broader contacts for information, marketing and value addition and which lobby with Government.

The major institution emerging to respond to these emerging needs even after the programme withdraws is the Resource Centre (RC). During the past two years MYRADA has promoted over 60 RCs. Each has a Management Committee comprising elected representatives from SAGs and WDAs, a full time staff (usually an experienced MYRADA officer) and resource persons on call. Each RC caters to 120-140 SAGs and WDAs which pay a monthly subscription towards the maintenance of the RC. People pay for all services provided by the RC which is equipped with a telephone, computer and necessary furniture housed either in a rented building or in a place donated by the Panchayats or MYRADA. MYRADA intends that each RC will be self-reliant within 3-4 years. The RCs are still in a pilot stage. MYRADA will share the reports and progress of these RCs with those interested and analyse whether they are appropriate institutions with a potential for sustained support of people's institutions.

Aloysius P. Fernandez

MYRADA

March 31, 2004



About this Manual and how to use it

This is not a Resource Book; it is a **Training Manual** that is ready for use in the field by frontline trainers who wish to train watershed institutions. Each lesson/module is complete in itself detailing the preparations to be made, the materials to be kept handy, the core messages to be communicated, and the methods that can be used in communicating these messages. We have tried to keep the language as simple as possible, and have included plenty of illustrations that can liven the content. A few sessions may require the presence of a technical person as co-facilitator but the rest can be handled by any person with basic training skills and some watershed development experience. We are aware that this Manual is written in English; this is only so that it is not regionally restricted. Most of our watershed work has been in the State of Karnataka and we are in the process of bringing out a Kannada version of this Manual. Others are encouraged to translate the whole book/chapters of their choice into other more appropriate languages.

Preparing this Manual was itself quite a learning experience for the staff of MYRADA. The situation in the beginning was a bit complex – the technical staff did not have expertise in training and the trainers were less knowledgeable on the technical issues. Hence, the modules had to pass through three workshops where expertise was drawn from all quarters for final refinement.

Unlike SAGs, concepts in watershed management are still in the process of evolving and refining. There are lots of ideas but no proven path yet to a watershed programme that is successfully managed even after the implementation phase is completed. The key seems to be to build strong and responsible community level institutions that sustain an interest in collective functioning though the intervening organisation withdraws its facilitation and support. It is to build such institutions that this Manual has been written. Every time we were tempted to include technical aspects of watershed development in the Manual we had to remind ourselves that this is a capacity building manual for watershed institutions and not a resource book teaching how to build bunds. To the best of our knowledge, this is the only Manual so far that is intended for direct use in training members of watershed associations.

How this Manual is organised:

This Manual and the modules or lessons in it are planned in six **Sections**.

Section 1: This refers to the entry phase in a watershed programme. It contains only one lesson which is to be read by the staff of the Intervening Organisation/NGO to know the processes involved in forming WDAs.

Section 2: Once the WDA is formed, there is a need to sensitise members to the various aspects of a watershed programme. Section 2 does this over 5 modules, including a field visit where participants get to see the benefits of a participatory watershed programme and interact with community based organisations that are managing such a programme. **In order to get the most out of these modules, it is better that they are conducted continuously as a residential training programme.**

Section 3: This section deals with participatory planning and budgeting and is written as a lesson and not a training module because the situation on the field while planning is so diverse that it is impossible to capture the diversity in the form of a training module. The Lesson Guide can be adapted into a training module by the trainer according to local situations.

Section 4: Once the people are organised in a WDA and have prepared a micro-plan, the focus shifts to building the WDA's capacity to manage the watershed programme. This is done by orienting the members on their roles and responsibilities and by taking them through basic modules on how manage their WDA. Thus, the focus of skill building is on how to conduct WDA meetings, how to frame rules and regulations for responsible functioning, what books and records to keep, etc.

Section 5: This set of 6 modules can actually be conducted one at a time during the WDA's regular meetings. Each is an independent module. While four of them help to strengthen the WDA, two of them draw the attention of members to focus on the priorities of vulnerable and marginalized groups such as landless persons and women.

Section 6: The three advanced modules of this Section are intended for members to look beyond their personal needs and immediate priorities and regard the watershed and their own roles and responsibilities towards it in a more holistic and longer-term perspective.

How the modules are designed:

Each module consists of various sessions, all leading to fulfil the module objectives. All the modules are designed in a similar format starting with the module overview followed by the module aim and objectives, and proceeding from there to the various sessions.

The format used in each of the training modules is explained below:

The *Module Overview* states the overall message that the module intends to convey.

The *Learning Objectives (Module and Session Objectives)* state in concrete terms what the participants should be able to understand through the training module.

Duration, Materials Required detail the preparations to be made by the module facilitator in terms of time and training materials.



Facilitator's Note or Tips to Trainers describes the important points that need to be known to the trainer while conducting the sessions.



Content describes the substance of what we intend to communicate to participants in the given session. Content may also include a message. At times the content also mentions the games or the exercises to be conducted, or stories to be told, during the session.

Process describes the step-by-step way to conduct the session.

The section on *Process* also specifies certain **Key Questions/Leading Questions/Guiding Questions**, which may be used to facilitate a brainstorming exercise, guided dialogue or group discussion. Some of the key questions have **Probable Answers** that are basically a checklist for the trainer to know the kind of answers one can generally expect from the participants.

Methods Used describe the methodology used to communicate the content. The following is a description of the training methods that have been used in this Manual.

- **Guided Dialogue**

In a guided dialogue, the trainer helps the participants to generate a list of issues related to the given topic and then guides the group to discuss the issues that have been thrown up. The participants' knowledge and experience are taken into account as much as possible. A guided dialogue to a large extent involves a series of one-to-one interactions between the trainer and individual participants in the presence of the entire group.

- **Brainstorming**

Each member of a group has different ideas on a given topic. Brainstorming involves giving everyone a chance to express his or her thoughts on the subject. Trainers and other participants should not edit, criticise or alter ideas but just take them as they come. Farfetched ideas should also be encouraged as they may often trigger more practical ones. The ground rule during brainstorming is that the more ideas that are generated the better.

- **Lecture**

A lecture involves the trainer talking to the group as a receptive audience. To be effective during a lecture the trainer needs to be interesting to the audience, use an appropriate number of examples, use the correct level of language for the audience and use a logical sequence of ideas in the presentation. It allows the trainer to deliver a lot of information within a short duration of time.

- **Group Discussion**

A group discussion is a discussion between participants on a fixed topic, with some intervention by the trainer only in order to clarify points of view or prepare for decision-making. It is usually better for the group to have the required input and background on the topic to be discussed before the discussion is initiated. A discussion may result in a consensus or a clear comparison of differing points of view. During a discussion the trainer should play an impartial role, structure the discussion by summarising, emphasising important aspects of the discussion and asking follow up questions. The trainer should also ensure that everyone participates in the discussion, use visualisation to make sure that everyone can see the main points, and that

the stage of discussion is recognisable at all times. The trainer should also ensure that (s)he guides the group to make its own decisions and that (s)he does not dictate decisions 'from above'.

- **Sub-Group Discussion**

A sub-group discussion is similar to a group discussion, the only difference being that the larger group is divided into smaller groups of fewer participants to enable greater participation. Each sub-group may be given the same or a different topic for discussion and at the end of the discussion the participants of each sub-group must summarise their discussions for the benefit of the entire group.

- **Story Telling**

Story telling involves the trainer communicating a moral, an idea or a concept to the participants by narrating case studies, allegories, fables, metaphors or folk tales. Some of the stories used in this Manual have been illustrated; the trainer may use the illustrations to communicate the story more effectively to the participants. Pictures are also used throughout this Manual to illustrate examples, etc. For a small group, the pictures in the Manual may be used as they are, for a larger audience they may need to be photocopied and enlarged.

- **Games And Exercises**

Games are activities where the participants must try to WIN. Exercises usually deal with problems, puzzles and issues. These activities may not always appear to have any direct relevance to the topic. The trainer must ensure that at the end of the exercise the experiences of the participants are discussed and understood or the participants may not see the relevance to the subject or the point the trainer wants to make and the whole exercise will be wasted.

- **Role Play**

Role plays are situational examples. A role play normally involves the trainer suggesting a situation the participants may be placed in. The trainer then asks the participants to spontaneously act out the situation in identified roles using previous experience, new knowledge, or skills given to them. It is essential to hold a debriefing session as soon as the role play is finished.

- **Fish Bowl Exercise**

A fish bowl is a description for a particular type of exercise thus named because it is comparable to observing fish in a transparent bowl. During a fish bowl exercise the participants are divided into two groups and seated in two concentric circles – a small inner circle with a larger circle around it. The inner circle participates in the activity (this may be a role play, a group discussion, a game, etc.) and the outer circle observes quietly and makes notes. The group members may be shuffled around so that all have a turn in the inner circle. At the end of each session, the trainer facilitates de-briefing by the observers. The observation is not casual but has a particular purpose, which is decided upon before the exercise begins. This is a method that can be used for analyses of group processes or to

monitor the effectiveness of a group discussion. Once initiated, the exercise should be allowed to evolve without any intervention by the trainer.

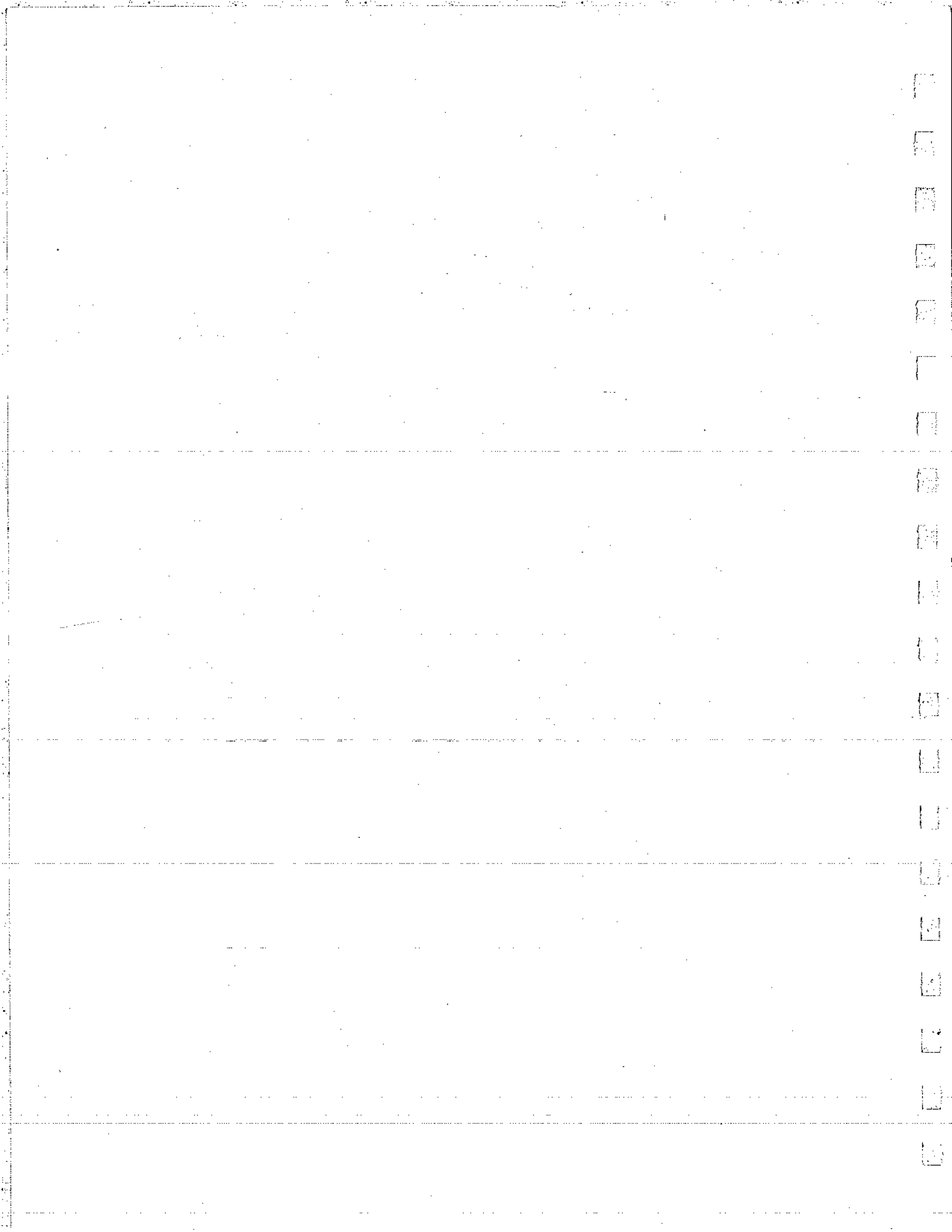
- **Video Or Slide Show**

This is self-explanatory and involves showing any video films or slides on watershed management that may be of interest to the WDA members, provided such materials and the technology to exhibit them are available.

Stop and Check! are basically monitoring indicators which the trainer may use throughout the course of each module to assess whether each training session has been effective and whether the message is getting across to all the participants accurately. These indicators correspond with the learning objectives.



Schedule the training module so that adequate time is available for the training sessions without frequent interruptions or disturbances. Make sure that you have all the material required for the module ready at hand. In addition to the materials listed under 'Materials Required' always keep a writing surface (blackboard, white board, brown sheets or chart papers) visible to the group and writing instruments (chalk or markers) at hand. If you wish to preserve the discussion that may evolve during training for future reference of the group or for your own documentation or records, it is better to use chart paper and markers. Otherwise you may use blackboard and chalk. You may photocopy and enlarge the pictures given in this Manual to be displayed to the group as and when required.



Acknowledgement

This Manual is the collective effort of many people from all the Projects in MYRADA. We thank all our colleagues, supporters and the community based organisations in our villages for every act of learning that has taken place in the area of watershed management; without them this Manual would not have been possible.

While at least 75 staff participated in the three workshops that took place to develop this Manual, we know that many of our other colleagues worked just as hard in the background preparing materials, testing them out, collecting photographs, case studies and reference materials, hosting workshops - despite project pressures. To these 'invisible many' we are deeply indebted.

Our sincere gratitude goes to KAWAD Society (Bangalore) for funding the several workshops and field studies that went into the production of the Manual, and to NOVIB (The Netherlands) for supporting the printing.

Our thanks also go to all our partners who have given space and freedom for people to develop their watershed institutions at their own pace since 1985-86, notably Deutsche Welthungerhilfe, Misereor, EZE, Novib, Department for International Development of UK (they fund KAWAD Society), Partners in Development, HOPE International Development Agency, Canadian International Development Agency, India-Canada Environment Facility, Swiss Agency for Development and Cooperation, Indo-German Bilateral Project, PLAN International, Government of Karnataka and the Government of India (through various centrally sponsored programmes - particularly through the Ministry of Rural Development).

In the following pages we have listed the names of those who were visibly active in the production of this Manual. There is a chance that some names are missing. We apologise for any such lapse and want you to know that even if your names are absent, your contributions have been very much appreciated.

We acknowledge the contributions of the persons listed here and many other backstage performers who have provided crucial inputs.

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SECTION

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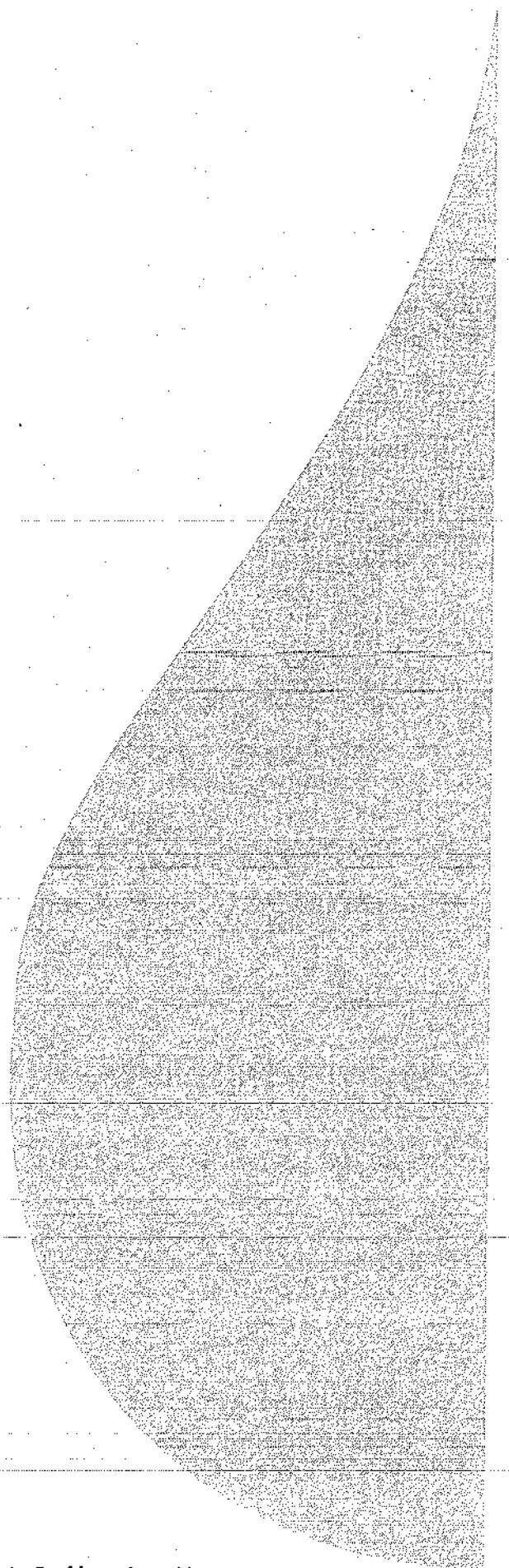
THE BEGINNING...



MODULE

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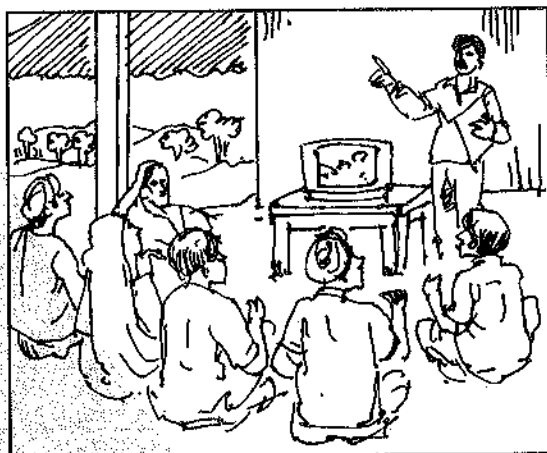
Entry Phase



The Entry Phase

MODULE 1

The journey from entering the village to the emergence of appropriate institutions to support watershed management



1 Building Rapport and Awareness - Meeting families, street meetings, village meetings, video shows, street plays, entry point programme, wall paintings, etc



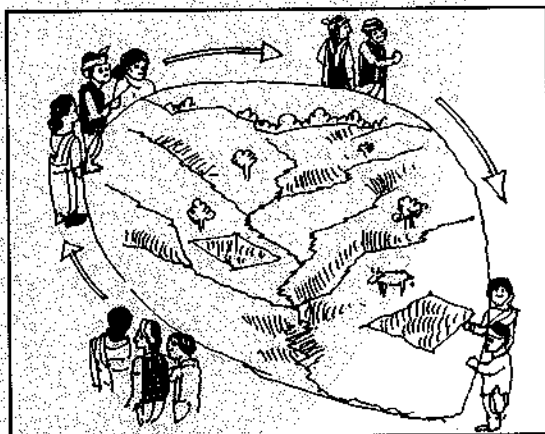
2 Conducting PRA exercises to understand - the socio-economic condition of the community, the status of natural resources, the reasons for degradation of the resources, etc.



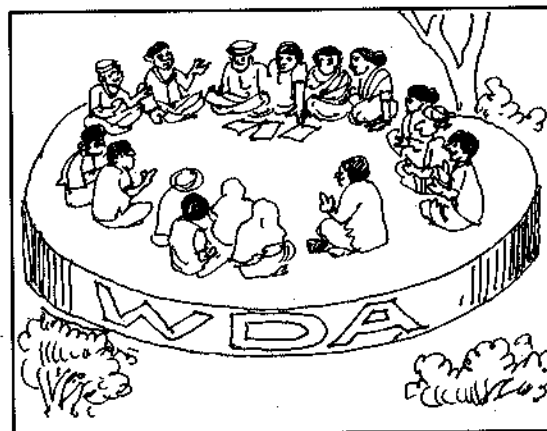
3 Forming Self-Help Affinity Groups (SAGs) of the economically poor families and strengthening them through series of trainings to function as institutions and to actively participate in the watershed programme.



4 Discussing the watershed programme in the Grama Sabha/Jana Sabha (village meeting)



5 Transect and demarcation of micro-catchments within the micro-watershed to lay the basis for the formation of the Watershed Development Associations (WDAs)



6 Formation of Watershed Development Associations (WDAs) and strengthen them to function as institutions responsible for programme planning, implementation and monitoring.

This lesson is not written as a module. It is a 'reading' which the facilitator should read and digest before entering any village to take up watershed programme. Based on MYRADA's experience over the years various steps in an entry phase are described below. The order in which the steps have been listed follow a certain logic that has emerged through a process of action and shared reflection in various MYRADA projects. This sequence, however, needs to be adapted to the local situation where the process may have to overcome different kinds of hurdles and where priorities of people may differ.

The Entry Phase is a phase where efforts are made to introduce the intervening agency and the watershed programme. If the intervening agency is already working in the area, then it is presumed that a certain level of rapport already exists. If there is sufficient awareness of watershed related issues among the villagers, then the steps given in this lesson need not be followed in strict order of their listing.

With more and more development actors recognizing the importance of involving people in their watershed programmes, the stress on entry point programmes as a means of winning people's trust and building people's confidence has increased. People's participation does not mean the presence of people during meetings; it means the involvement of people in decision making from the initial stages of the project to the end and even beyond. In a watershed project it means identifying, planning, budgeting, implementing, monitoring, and maintenance by the people. The 'entry phase' serves as a foundation of any programme that follows. There are no shortcuts to this process. Unfortunately, many watershed projects under-estimate the time and funds required for this phase.

Steps in the Entry Phase:

Step 1 : Identify *Sub Watersheds (4,500 ha - 6,000 ha) and *Micro-watersheds (500 ha - 750 ha)

Generally the sub watersheds can be identified using toposheets obtainable from the survey of India offices. Satellite maps obtainable from ISRO and other sources can also be made use of for this purpose.

Geo-physical criteria are usually given priority for identifying sub watersheds that are to be treated. These criteria are for example:

- Undulating topography
- Drought prone (long dry spells during monsoons)
- Rainfall between 300 - 800 mm annually
- Severe soil erosion
- Depleted ground water
- Degraded areas with poor vegetative cover

These geo-physical criteria are important to provide a focus to the programme in terms of geographical areas and for maximum impact.

MYRADA's experience indicates that the potential for sustainable management of the

* Further description to these terms is given at the end of this lesson as Readings for the Facilitator

treatment measures by people increases significantly if the criteria for prioritising the micro watersheds for treatment also include features other than the physical ones listed above. The following criteria or guidelines for prioritising the micro-watersheds (within a sub-watershed) go beyond the geo-physical features.

- The technical approach requires that treatment should start from micro-watersheds on the highest ridge in a sub-watershed, and progressively move downwards. However, this approach need not be applied as a standard rule. Experience indicates that it is more feasible and effective to start with micro-watersheds where people are willing to participate. **But it is essential to ensure that the entire sub-watershed from ridge to valley is treated over time.** This approach helps to overcome obstacles arising from internal conflict in certain micro-watersheds as well as to give the message that the approach depends on people's willingness to co-operate; the programme is not a handout. The success in some micro-watersheds helps to motivate people in other micro-watersheds and hence creates demand for the programme.
- People's willingness to invest in the programme should be tangible. The indicators could be their decision to take up a common action programme through shramdaan, to participate in initial meetings, to set aside small areas for regeneration and reforestation, to manage a water resource etc.
- Generally about 75 - 80% of the farmers owning and cultivating land in the micro-watershed should be living in the village or habitation lying in the watershed. If a large proportion of the farmers live outside, building watershed institutions takes a longer time; these institutions also tend to be unstable.
- Since watershed programme also aims to upgrade the livelihoods of the poor, MYRADA also recommends that micro-watersheds with majority of small and marginal farmers are given priority.
- Watersheds where conflict is present (either open or latent) due to political rivalry or other causes, require far more preparatory work and more sustained evidence from people that they are willing to unite for a common cause. In such cases it is advisable not to start until other neighbouring areas have shown success.

Step 2 : Collection of Maps and Secondary Data related to the Selected Micro-Watershed

Once the micro-watershed is selected for treatment, the following need to be collected:

- A khatedar list or a cadastral map which shows ownership of lands and a record of rights - these are available with the Taluka Land Records Office but should be verified on the ground through PRAs, etc. Cadastral maps are available in 1:7920 scale.
- The toposheets with the contour and drainage line - these need to be enlarged for easy reading and several copies made. Toposheets to the scale of 1:50,000 are used to demarcate a sub-watershed and micro-watershed boundaries. This is usually done by expert agencies like KRSAC (Karnataka State Remote Sensing Agency) in Karnataka State. These need to be verified through a transect walk done along with the people.

- Basic socio-economic information of the families – the number of families, whether residing within or outside the area, land holdings, off-farm assets, livestock population, their main occupation, migration status, etc.
- The list of people below the poverty line – this gives an idea about the number of poor in the village, which can be verified later through a wealth ranking exercise conducted along with the people.
- Rainfall data over 10 - 20 years and any other data related to the natural resources.

Step 3 : Building Rapport and Awareness

This is a slow and time-consuming process if the intervener is new to the area. It may be easier in areas where people are more aware about various development programmes and where the role of outside agencies in initiating these programmes has been positive. There might be instances where people are not willing to cooperate because their previous experiences with development interveners have not been good. Remember that people will react based on their previous experiences.

This process might require frequent visits to the villages – talking to men, women and youth separately, to families, to leaders (both elected and traditional).



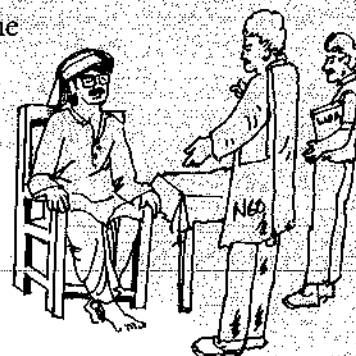
DOs AND DON'Ts - for the rapport and awareness building phase

- Take time to introduce yourself and your mission.
- Have patience
- Be open and transparent
- Don't force yourself into somebody's house without an invitation.
- Be sensitive to the social customs in the village.
- Don't wear an attitude of a benefactor.
- Don't make false promises. Give the right messages the very first time.
- Choose to visit at a time when people are relatively free.
- Don't ask a lot of questions all at once. Listen to what they have to say.
- Join people in festivities, eating, and discussions.
- Do not let the rich and powerful co-opt you.

Activities that can be taken up for Rapport and Awareness Building

► **Meeting Village Leaders** : Identify the village leaders. These are persons whom the people respect and listen to, usually some elderly persons. They are not necessarily the elected representatives in the Panchayat.

Introduce yourself, your organisation and your mission. Make sure that they understand that you have no political or religious agenda. If possible, invite these leaders to your office where they can observe visual presentations of your organisation's programmes. Make



an informal/casual tour with them of the village and of the habitations. Ensure that you interact with different groups including women and youth and the poorer sections. In all your interactions with the village leaders and people, try to focus on problems that they have experienced related to droughts, declining yields, shortage of fuel-wood, falling water table and issues related to erosion. Finally request them to call for a village meeting, but insist that one woman and man from every household should be present.

► **Village Meeting** : A village meeting is a gathering of men and women from all households of the village. The meeting should be arranged in a place, which is accessible by everyone and at a time convenient to all, particularly to women, youth and daily-wage workers. In the meeting:

- **Introduce yourself, your organisation and your mission.** Describe the various programmes undertaken by your organisation. Video/Slides could be used.
 - **Give a short explanation about the watershed programme.** Relate it to the findings that you have extracted from the history of droughts in the village or to other problems related to soil and water conservation that emerged during your conversation with the leaders and people while you walked around the village.
 - **Introduce the Self-help Group (SHG) approach.** Explain the need and importance of SHGs in the watershed programme. Emphasise that membership will be only of the poorer sections. Inform them that a PRA will be conducted to identify the poor who will be asked to organise themselves in groups of around 20 persons each. The basis of membership to these groups will be mutual trust and affinity existing among the people.
 - **Introduce the concept of grass-root level watershed development associations (WDAs):** These institutions are responsible for planning, implementing and monitoring the watershed programme. Inform that formation of such an association will be initiated after the SHGs gain some confidence in functioning as institutions.
 - **Introduce the concept of institutionalising the Grama (Jana) Sabha :** This is the general body of the village which meets preferably once a month to undertake and review developmental activities, in this case the watershed programme, in the village.
- **Individual and Street Meetings** : Follow up the village meetings by contacting individual families and by conducting informal meetings at street corners or teashops or traditional meeting places. These meetings are a source of information about the inter-relationships between various groups; they provide information about the social health of the village. They help to decide if the situation is conducive to mutual co-operation. During these meetings you can also share information about the following:





- The concept of Self-help Affinity Groups: Explain the term affinity and share with them experiences in other villages; this should be done particularly in the poorer sectors of the village.
- Discuss some of the issues that arose at the village meeting related to soil erosion, decreasing productivity, etc.
- Discuss the need for Watershed Development Associations in the watershed programme.

► **Conduct a Jatha :** At this stage a *Jatha* has proved to be useful instrument to carry the process forward. During the *Jatha*, street plays are conducted on the issues relevant to the watershed programme such as the importance of natural resources, need to conserve natural resources, importance of people's participation in any programme, need for people's institutions, etc. The *Jatha* is a traditional medium and serves to mobilise people and to arouse their curiosity about the programme. It also helps to build rapport with all sections and classes in the village.

► **Common Action Programme/Entry Point Programme :** As a means to build goodwill, a common action programme can be proposed depending on the need of the community, as identified during various meetings. This is

commonly known as Entry Point Programme. *The activities undertaken under this programme should not stand to benefit any one individual or one group, but should be for the good of the entire village community.*



A few examples of activities that can be taken up under such programmes are: repairing roads, clearing drains, constructing cattle troughs, conducting health camps, etc.

People must be asked to contribute to the cause in the form of *shramadan*. It is important that the NGO staff does not play the lead role in organising this common action programme but motivates the various groups to take the initiative, to plan and implement the programme.

Step 4 : Participatory Rural Appraisal

Assuming that the people are more responsive, you now need to organise PRA exercises. The purpose of these are to:

- Identify the vulnerable poor families who would be potential members of the SAGs.



- Recall the history of the state of the natural resources in the watershed, to find out whether over the years, they have degraded or improved and why.
- To understand the livelihood base of the people – various sources of income, the extent of dependency of various groups on these sources, particularly on natural resources.

PRA exercises that can be undertaken:-



Wealth ranking exercise to identify the poor. Once the poor have been identified, conduct a meeting to explain the meaning of affinity and suggest that they decide on their own to form groups based on affinity.

- **Social mapping exercise** to understand the social dynamics in the village.
- **Resource mapping** to identify the various kinds of resources in the watershed and their status.
- **Trend and Time Lines** to identify the trend in the status of natural resources. You could also make three models of their watershed on the ground depicting the state of natural resources 10-15 years ago, the present status and what they would like to see their watershed as in the future (the last model being a "Vision" of their watershed). Photographs of these models (or a simpler drawing) could be displayed in their meeting place to help them concretise their vision.
- **Seasonality mapping exercise** to collect data on people's seasonal income/expenditure, rainfall patterns, water/biomass availability, etc. Patterns that emerge from these exercises will give a framework for people to plan particular programmes and schedule the watershed activities better.

NOTE:

1. The PRA exercise should not produce a list of people's needs.
2. A feedback on the exercises should be given to all participants and to the entire village.

Further Readings: MYRADA PRA-PALM Series 4D, 4F.



Step 5 : Formation and Institutional Capacity Building of SAGs.

Once the vulnerable families in the village are identified, ask them to form Self Help Groups based on affinity among the members. The SAGs need to be strengthened through intensive training to build their institutions and to develop and manage their administrative and financial systems. Guidance in the early days is essential for the institution's growth. (Refer "The MYRADA Experience – A Manual for Capacity Building of Self-help Affinity Groups" which offers 24 modules). You need to select the modules carefully to meet the needs of the group. Do not follow the sequence given in the Manual if the need for change is evident.

For a better grasp of the functioning of SAGs, the groups can be taken on an exposure trip to successful SAGs in a nearby area/project.

SAGs are the means for promoting the livelihoods of the poor. More importantly they have the potential to ensure that vulnerable groups have influence in the decision making process in a watershed programme.

Why SAGs need to be in place before initiating the watershed programme:

SAGs are groups of poor and vulnerable people. With the trainings provided to nurture these groups, they become more confident to assert their rights in a watershed programme.

Compared to the WDAs, it is easier to form SAGs. Well functioning SAGs can be a means of communicating the importance of institutions to the community at large and hence, it might make it easier to form the WDAs later.

SAG members are aware of the benefits of being in a participatory institution; hence, they are able to exert influence on the people to participate effectively and to contribute in the watershed programme.

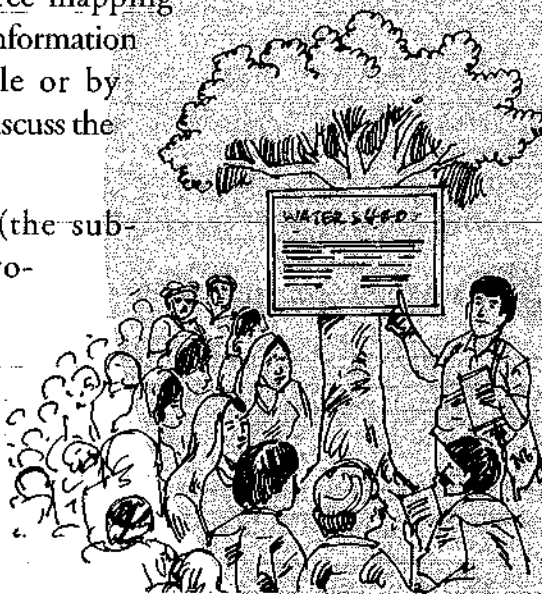


NOTE: Please remember that the SAGs should be functioning for at least 4 months before you initiate formation of Watershed Institutions to discuss the watershed programme.

Step 6: Convene a Village Meeting to Initiate the Watershed Programme (around 4 months after the first village meeting):

In this meeting you could address the following:

- After introducing yourself, explain what you have done so far in the village.
- Discuss the findings from the resource mapping exercise done during PRA and from the information gathered either by talking to people or by preliminary transect of the watershed. Discuss the status of existing natural resources.
- Introduce the watershed concept (the sub-watershed, micro-watershed, micro-catchment concept – refer end of *Module 1* for information), and how it can help to regenerate the natural resources and improve the livelihoods of the people, etc.
- Explain the approach of the programme, the various project partners, the funding, etc.
- Explain the expectations the programme has from the community – in terms of ensuring their participation in the formation of watershed institutions, sharing the



programme costs, their role in planning and implementation, sharing other programme responsibilities, etc.

- Seek their willingness to implement the programme.
- Inform the people that in order to form the watershed institutions at a micro-catchment level they first will need to demarcate the boundaries of the micro-catchment within the micro-watershed.
- Also inform them that in order to plan for their micro-catchment, they need to study the natural resources in detail.
- In order to do the above two they need to undertake a transect of the micro-watershed. Fix a day for the same.



NOTE: Based on their past experience people might have various apprehensions about the programme. Clear all their doubts. Do not make false promises. Do not discuss issues which are not clear to you or which are not clearly spelt out in the programme guidelines.

If required, end the meeting by a video show, a street play, a magic show, etc. focussing on the issues addressed by the programme.



Step 7 : Formation of Watershed Institutions

The standard micro-watershed in Government Programmes covers an area of 500 ha in which over 100 - 150 families have a stake. This number is too large for effective participation. As a result they elect representatives to implement the programme. This reduces the level of participation and often marginalizes the poor. Within this area of 500 ha in the Deccan Plateau where the land is undulating, there are several small micro catchments of approx. 100 - 150 ha. The families with a stake in these micro watersheds number around 30 to 40. These families form an Association (sometimes called an Area Group or a Watershed Development Association) which in MYRADA's experience is structurally appropriate (being small and with reduced potential for leadership conflict) to function in a participatory manner and is able to implement the programme in a more effective, efficient and transparent manner than the body that represents the families in the 500 ha watershed. The recently Revised Guidelines called "Hariyali" of the Ministry of Rural Development dispense with the Committee at the 500 ha. level but recognise and give a place to the Area Groups/Watershed Development Associations which manage the micro catchments covering 100 - 150 ha. as well as to the SAGs. Step 7 focuses on these Watershed Development Associations (WDAs) covering a micro-catchment of 100 - 150 ha.

» Steps for forming a WDA: Transect Walk to demarcate a Micro Catchment (100 - 150 ha)

When people gather for a transect walk:

- Brief them on the purpose of the transect walk and what they need to observe.
- Based on your preliminary study of the area, divide the group into sub-groups (nalla wise) based on the rough estimation of the number of micro-catchments that the



watershed
can be divided into. While
dividing, ensure that farmers
and other stakeholders in a
particular area transect that area together.

Before undertaking the demarcation exercise with the people you should be familiar with the basic layout of the catchment. You can do this by:

- Undertaking a preliminary transect of the watershed by yourself and your team.
- Reading and understanding the toposheets for the given watershed, and identifying key drainage lines in it.
- Enlarging the toposheet to the same scale as the cadastral map and overlapping the two to get a fair idea of the lands falling within each catchment.

- Each group should be accompanied by a staff member or a trained community facilitator.
- In each group there should be a person who can document the process. The person should be preferably from the community.
- If there are many groups transecting the catchment, fix a convergence point where all the groups can meet at the end of the walk.

► **Materials to be taken along during a transect:**

- *Khatedar* list – this is a list of all landowners in the village along with their survey numbers.
- Cadastral map – this is a map showing legal ownership boundaries the lands within the village.

What to observe during a transect undertaken to delineate watershed boundaries:

- Direction of flow of water – in which direction does water from a particular point flow.
- Identify watershed boundaries based on the above.
- Identify the owners/users of lands on either side of the boundary and check whether the field data agrees with the *Khatedar* list.
- Identify major and minor drainage lines and relate with the map.
- Identify soil and water conservation measures already done and include them into the map.

The above two are used as a reference to understand the ridgeline better and to identify those fields that lie on the boundaries of the catchment being demarcated.

- Copy of the drainage map extracted from the toposheet – to identify major and minor drainage lines.
- Note pads and pens – for taking important notes.
- Any other logistical arrangements like food, water, etc.

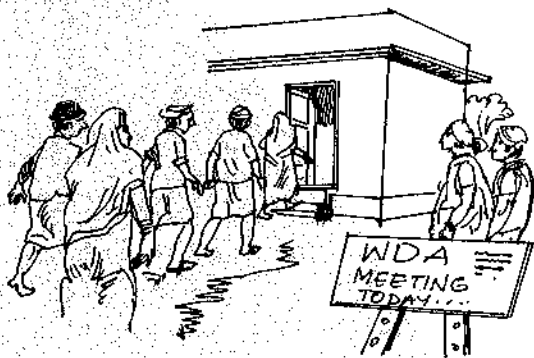
Further reading (for various kinds of transects): MYRADA PRA-PALM series 4E

» Finalise the list of farmers within the catchment

Returning back to the village, consolidate the information gathered during the transect in the form of the micro-watershed map (usually this is drawn on the ground in a large open space). Ask each of the sub-groups to identify their micro-catchment within this and share their experience of the transect. Ask them to mark the boundaries of the survey numbers within each micro-catchment and compare it with the *Khatedar* list. Ensure that the micro-catchment is delineated in such a way that not more than 40 farmers own/cultivate in the area. Call a village meeting to share the outcome of the exercise. Ensure that no stakeholder and no farmer who is actually cultivating land is excluded. Incorporate any additions or deletions recommended by the people after verification.



Formation of Watershed Development Associations (WDAs)



Invite the stakeholders and farmers with lands in the micro-catchments to organise themselves into Watershed Development Associations. Agree on a date to hold the first meeting of the WDAs. Inform them that the first meeting will last at least 3 hours as it will be organized as a Training Session. Tell them that all should be present. Fix a room for the training which is large enough.

From here begins the capacity building of the WDAs through a series of trainings mentioned in this Manual in order to enable them to plan and implement the watershed programme and, in future, to manage and maintain their watershed resources.

Readings for the Facilitator



Sub-Watershed: A sub watershed as understood in this Manual covers an area of 4,500–6,000 ha. Toposheets to the scale of 1:50,000 need to be acquired by senior project implementers to identify the boundaries of the sub-watersheds.

Micro Watershed: As understood in this Manual, a micro watershed covers an area of 500–750 ha. Micro-watersheds can be delineated using the 1:50,000 scale toposheets. For some areas toposheets to the scale of 1:25,000 have also been prepared which can be used to demarcate a micro-watershed. The boundaries of the micro-watershed and the drainage lines provide the necessary basis for a treatment plan, which is drawn up by the people and supporting staff. In all Government programmes the micro-watershed is the smallest area that is recognised as a unit for planning. Each micro watershed has a committee elected by the farmers with lands in the micro watershed. For preparing detailed micro-plans, the cadastral maps (available in 1:7920 scale) and the toposheets pertaining to a particular area have to be brought to the same scale and overlapped.

Micro Catchment: As understood in this Manual, a micro catchment covers 100 – 150 ha. These micro catchments can be delineated on the maps of the micro watershed where major and minor drainage lines are clearly indicated. MYRADA's experience indicates that watershed development associations (WDAs) formed at this level are more effective in planning and implementing treatment measures as well as in maintaining the investment after the project is over. A couple of members of the WDAs also represent the WDA in the management committee at the micro watershed level. The smallest group however, continues to be the Self-help Affinity Groups, which comprise the marginal farmers as well as the landless; they also elect members from their groups who are represented in MYRADA's projects as members of the management committees at the Micro watershed level. This gives the poor and the marginalised a voice in decision making at the level of the micro watershed.

Toposheets to the scale of 1:50000 and 1:25000 (for some areas) are available with Survey of India Offices .

Cadastral maps are available with Survey Settlement and Land Records Department in every Taluka.

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SECTION 2

INTRODUCTORY SESSIONS



MODULES

- 2.1 Introduction of the Participants and the Intervening Organisation
- 2.2 Understanding our Natural Environment
- 2.3 Concept of Integrated Watershed Management
- 2.4 Why Participation
- 2.5 Watershed Treatment and Management - an Exposure

SESSION ONE

Registration and Introduction of Participants

Session Objective:

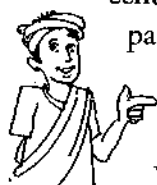
At the end of this session the participants will be comfortable to interact freely with each other and with the facilitators.

Session Duration: 2 hours

Methods Used: Games like merry-go-round and paired introduction

Materials Required: Training Centre Register and the Training Register of the WDA

Facilitator's Note: Training Centre Register: This register is maintained at the training centre to record all the trainings at the centre. It will have a format to record the participants' name, place they come from, date and signature and any other data that is considered useful.



Training Register of the WDA: It contains participants' names, trainings attended with dates, venue of training, organisation/institution conducting the trainings, broadly the topics covered, faculty/trainers, the learnings and the action plans or follow-up required. The WDA members need to understand the importance of maintaining this register.

CONTENT:

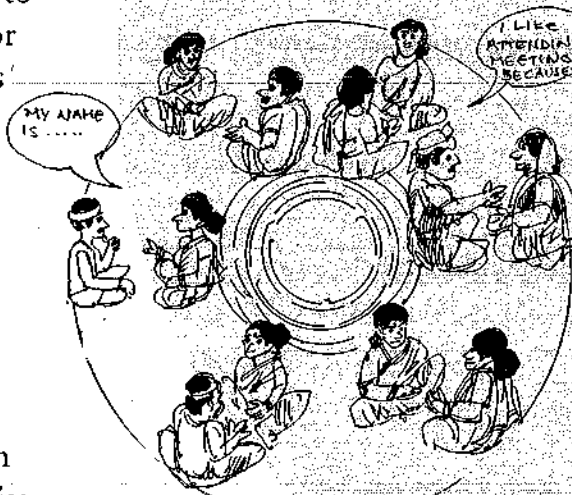


Games you can use:

1. **Merry-go-round:** Ask everybody in the group to form two circles - an inner and an outer circle with participants in the inner circle facing the ones in the outer circle. Let the partners briefly introduce themselves to each other. Give the group a topic for discussion, which each person must discuss with his/her partner. Possible topics are:

- What is the first thing you would do if your land becomes more productive?
- Describe how your village was when you were 15 years old.
- A childhood experience that makes you laugh even today.

Give four minutes for the discussion. Then the persons in the inner circle move clockwise to face the next person in the outer circle. The participants in the inner circle continue discussing and rotating in this manner until they are face to face with the same person with whom they had started the game.



In the end let all the participants introduce themselves and share their reactions to the exercise.

NOTE: This kind of an exercise helps the participants to open up. They also get to know more about their co-participants other than just their names and their village.

2. Paired Introduction: The participants are divided into pairs and each pair spends ten minutes together, learning about each other. Each participant then introduces his/her partner to the larger group along with few of the good qualities the person possesses.



NOTE: This kind of an exercise sets off everybody in an appreciative mode and hence adds a more positive note to the beginning of the training.

Process:

Step 1 : Introduce yourself to the participants with your name and organisation.

Step 2 : Depending on how familiar the participants are with each other and also on the time available, select one of the games listed above. Ensure that all participate.

Stop and Check!

Are all participants interacting more freely with each other and with the trainer? Have those who are less confident been encouraged to interact?



Session: 2

About the Intervening Organisation

Session Objective:

At the end of this session, participants will have more information regarding the Intervening Organisation and hence will feel confident in dealing with them.

Session Duration: Not to exceed 40 minutes

Methods Used: Lecture, photo exhibits, video and slide shows (optional).

Materials Required: Photographs of the organisation's programmes, project location map, organisation Mission/ Vision chart, video film or slides on the various activities and TV/ VCR/ slide projector.





NOTE: The session has been written assuming that the Intervening Organisation is conducting the training and the trainer belongs to this organisation.



CONTENT

Content 2.1: Guidelines for introducing the Intervening Organisation

The brief about the Intervening Organisation can cover the following areas:

- Organisation's history
- Organisation's Vision/ Mission
- Organisational set-up
- Areas of operation
- Nature and scope of activities
- Funding
- Experience in Watershed Management.



Facilitator's Note: Profile of MYRADA is given at the end of the module as a sample (*Annexure*). Each Intervening Organisation can prepare their own training materials based on the outline given above.

Process:

Step 1 : Brainstorm the participants to find out how much they know about the Intervening Organisation. Leading questions can be:

- Have you had any previous association with our organisation?
- What do the people in general (in your village) think about our organisation?

Step 2 : Introduce your organisation according to the outline given in the content. Show photographs, videos or slides if available, of the programmes done by your organisation.

Step 3 : Answer all queries and clarify doubts if any.



Stop and Check!

Are the participants able to describe the key programmes of the Intervening Organisation?

Session: 3

Scope of the Training Programme

Session Objective:

At the end of this session the scope of this training programme must be clear to all participants.

Session Duration: 30 minutes

Methods Used: Game, group discussion, lecture

Materials Required: Chart papers and markers, or alternately – black board and chalk, paper cut-out of a long snake boat (one) and paddles (one per participant).

CONTENT

Content 3.1: Purpose of this training

The three-day residential training that the WDA members have come to attend forms the first part of a series of training modules that the members will be undergoing as a part of the institutional capacity building component of the watershed programme. In these three days the focus will be on understanding:

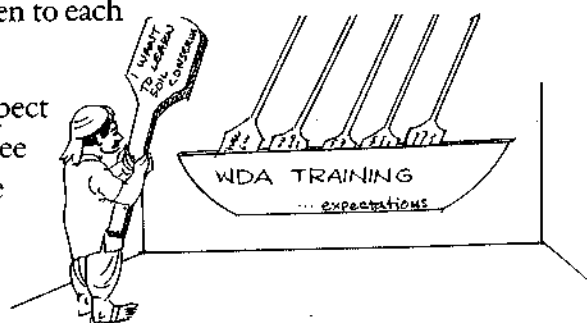
- The natural environment and the major issues leading to environmental degradation.
- What participation means in a watershed programme.
- The concept of Participatory Integrated Watershed Management and how such a programme helps in reversing the cycle of degradation.
- The various components of the Participatory Integrated Watershed Management Programme.

On the third day, the participants are taken out for an exposure to a treated watershed where they will be able to relate the classroom learning with the field reality. The sessions will be interspersed with games and exercises to make the training more participatory and effective.

Process:

Step 1 : Distribute one paper paddle and a pen to each participant.

Step 2 : Ask them to write one thing they expect to learn during the following three days on the paddle. (Literate members can assist those who cannot write). Give the participants five minutes time.



Step 3 : Ask the participants to walk up to the boat, announce their expectations to the group and stick the paddle neatly onto the boat.



NOTE: Stick the boat in a prominent and accessible place in the Training Hall.

Step 4 : Once all the paddles are pasted, group the common or similar expectations together and categorise them under major themes. See how their expectations are in line with your training design. Explain to them the purpose of the three day training with reference to your training plans. Explain clearly which of their expectations will be met with. Explain if some aspects cannot be covered and why.

Step 5 : Referring to the boat figure displayed, sum up by drawing a parallel between the cooperation required in sailing a boat and the cooperation required in making training successful.

Message you can convey: Unity and cooperation is required in rowing a boat. Similarly, to make this training programme successful you will all have to cooperate during the sessions and participate in the games and exercises which are major tools used during this training.



Stop and Check!

Are participants able to broadly define and agree on the scope of the training programme they have come to attend?

Session: 4



Role of Intervening Organisation in Watershed Management

Session Objective:

At the end of the session participants will be able to describe the role of the Intervening Organisation (with regard to the watershed activities) in their watershed.

Session Duration: 30 minutes

Methods Used: Story telling, brainstorming

Materials Required: Chart paper and markers

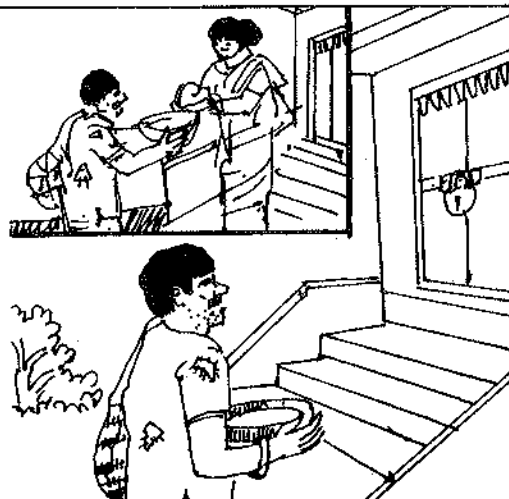
CONTENT

Content 4.1: Role of Intervening Organisation in Watershed Management



The Role of the Intervening Organisation in development programmes is to build capacities of the people to improve their skills, confidence and resources so that they are able to take the lead in improving their livelihoods in a sustainable manner. The following story illustrates this role:

Once there lived a very generous couple in a town. They never turned down anyone who asked for help. A beggar who used to visit them everyday was fed well by the wife. The beggar got so used to being fed by the couple that he never went anywhere else for alms. One morning the beggar found the house locked and had to go without food for the entire day. Same thing happened for the next few days. The beggar was weak and frail with hunger.



One morning the beggar was delighted to find the door open. A new couple had shifted into the house. When he started begging he was shooed away. Fatigued with hunger he broke down and started weeping. Taking pity, the lady gave him some food.



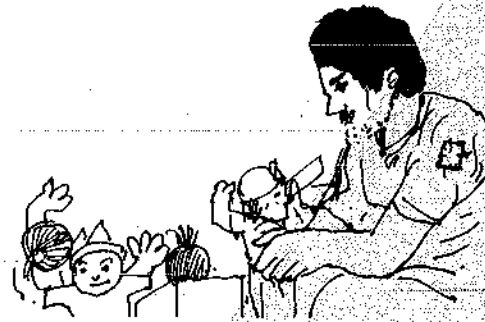
Next day when he again turned up at the door, the lady found out that he was used to feeding himself daily in this manner. On speaking to him she found that he was a toy-maker who had a small shop in the city outskirts till a year back. One day when accidentally the shop burned down he underwent a heavy loss due to earlier debts. Since then he had taken to begging. She thought of helping him in a different manner. She provided him with few pieces of left-over wood from her husband's carpentry workshop along with some tools.



The beggar crafted the wood into nice little toys and sold them in the market. After a long time he bought his own food instead of begging. He was overjoyed.



Next morning he again went to the lady's house. This time he did not beg for food but asked for few more pieces of wood. He crafted out beautiful toys which sold well in the market.



After 2 weeks he visited the lady's house dressed in fresh clothes. He returned her tools and thanked her for helping him to regain his self esteem and confidence. He had set up a small make-shift shop in one of the busy streets of the city.



Message: Feeding a hungry person with fish everyday is not a sustainable way to deal with his/her poverty. Teach him/her how to fish and he/she will not need to depend on others. In a development project, outside agencies come to assist the people for a short duration; they then withdraw. The task of the Intervening Organisation is to build people's capacities to manage and develop their resources (physical, human and institutional) in such a way that they will be in a position to improve their livelihoods on their own in a sustained manner.

Process:

Step 1 : Narrate the story given in the content.

Step 2 : Brainstorm the participants to find out what they understand from the story.

Leading questions:

- What do you think/feel about the story?
- Whose method of helping the beggar was more appropriate and why?

Step 3 : Sum up by drawing parallels between the story and the role of the Intervening Organisation. (use the message at the end of the story)

Step 4 : Clarify doubts if any.

Stop and Check!

Are the participants able to state the role of the intervening organisation in any development programme?



Annexure

ABOUT MYRADA

MYRADA's history:

In 1965 Karnataka State Government decided to provide 15000 acres of forest land for resettlement of the Tibetan refugees who fled to India in the 1950s. While the State Government played a major role in establishing the settlements, it decided to involve NGOs in strategic areas. Thus, MYRADA (Mysore Rehabilitation and Development Agency) was established in 1968, and registered under the Societies Act. MYRADA played a major role in establishing the settlements of Odeyarapalya near Kollegal, Bylakuppe - near Kushalnagar and Gurupura near Hunsur. After the successful completion of the Tibetan Resettlement programme, the Government of Karnataka invited MYRADA to work in the areas adjoining the Tibetan Settlements where Indians lived in poor socio-economic conditions.

Geographic Areas of Operation:

MYRADA works primarily in rural areas. Presently MYRADA is directly working in 15 projects in 11 backward districts of Karnataka, Tamil Nadu and Andhra Pradesh. Other than these, it is supporting programmes on a long-term basis in Haryana and Uttar Pradesh in India and in Myanmar and Cambodia and Indonesia where either staff have been deputed or regular visits organised.

Nature and Scope of Activities:

Areas where MYRADA has achieved significant breakthroughs include initiating the Self Help Affinity Group concept for credit management among the poor and influencing the banking policy to link these groups with the banks, natural resources management in dryland areas, promoting people's institutions and building their capacities to manage their own natural resources, building local level institutions to address various issues related to the community such as School Betterment Committees, Village Water and Sanitation Committees, etc. MYRADA has also been involved in promoting networks with other agencies at the District level.

MYRADA's Mission Statement (revised May 1998)

To foster a process of ongoing change in favour of the rural poor in a way in which this process can be sustained by them through building and managing appropriate and innovative local level institutions rooted in values of justice, equity and mutual support.

To recreate a self-sustaining habitat based on a balanced perspective of the relationship between natural resources and the legitimate needs of people.

To promote strategies through which the full potential of women and children is realised.

To influence public policies in favour of the poor.

To strengthen networks and linkages between and among formal and informal institutions that can foster and sustain the impact of development initiatives.

Briefly, MYRADA's Mission is, "To build poor people's institutions".

MYRADA's Watershed Management History:

The Beginning 1984-85

MYRADA's involvement in watershed management began in 1985 with the Participatory Integrated Development of Watershed (PIDOW) programme in Gulbarga District, Karnataka, where Government and MYRADA worked in cooperation as interveners in a watershed management programme. The idea was supported by officers from the Ministry of Rural Development who considered it a Pilot Project that could provide useful lessons for future policy.

In the late 1980s

MYRADA realised that provision of credit is not enough to build a sustainable livelihood base for the poor who rely on dry land agriculture. It had to be supported by a programme addressing land degradation. The majority of MYRADA projects gradually took on watershed management as their core activity. The programme has evolved and changed over the years. Many improvements have been made since the initial stages. Over the years each project area has fostered the process of people's participation in regenerating watershed resources with modifications to suit the area's specific conditions. MYRADA's experience in Watershed management has been sufficiently established, analysed and documented to influence policy makers.

Mid 1990s onwards

Projects began encouraging watershed farmers to take loans (with the terms being decided by the watershed institution) for treatment measures on private lands. This greatly enhanced the strength of the watershed institutions and the quality of structures. It has also brought down the overall costs and fostered better maintenance of treatment measures.

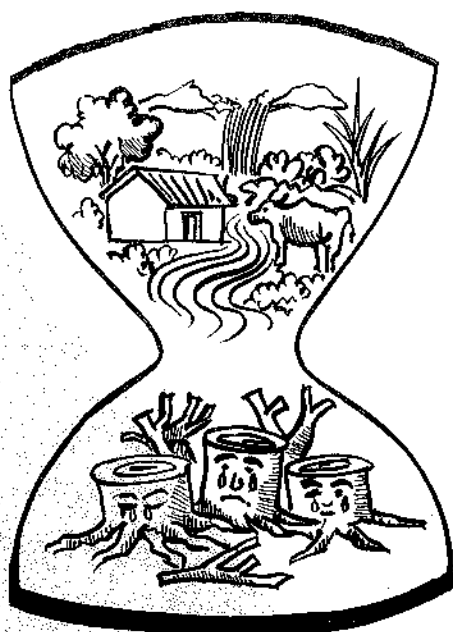
The process of experimentation and exploration to make watershed institutions more sustainable is still going on.

MYRADA has several publications on its experiences in watershed management which are available on request.

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Understanding Our Natural Environment



Module Overview:

A watershed encompasses important elements of nature like water, soil, vegetation, etc. Hence in order to understand the need for a watershed management programme, it is important to know how these elements are influenced by human and natural interventions; how they interact and are interdependent on each other; how their degradation influences the life on earth.

The aim of this module is to help participants understand the importance of the natural environment and some of its components - namely water, soil, biomass, etc. and how they behave. It intends to sensitise the participants about the causes of degradation of the environment and the impact of this degradation on life. This is the first step in creating awareness among the participants for the need of a watershed management programme. It helps them to reflect on various local issues related to soil, water and vegetation, which form the basis of their livelihoods.

Sessions

1	Topic	: What is ecology and what is an Ecosystem?
	Duration	: 1 hour
2	Topic	: Food chain as an important component of Ecosystem
	Duration	: 1 hour
3	Topic	: Soil as an important Natural Resource
	Duration	: 1 hour 30 minutes
4	Topic	: Water as an important Natural Resource
	Duration	: 1 hour
5	Topic	: Environmental degradation - its Causes and Effects
	Duration	: 2 hours

Methods used : Brainstorming, group discussion, exercises, guided dialogue, lectures, displaying pictures, demonstration, timeline, field visits

Materials required: Chart papers, markers, pictures of various ecosystems, pictures/ transparencies of water cycle, magnifying lenses, two pieces of rock, soil samples, tools to dig a pit, pictures of animal and plant cut outs to explain food chain and food pyramid, a stove for heating water, a vessel with a lid.

Total Duration: 6 hours 30 minutes

Module Aim and Objectives:

At the end of this module, participants will be able to:

- Explain the meaning of ecology and ecosystem
- Explain the importance of soil and water in maintaining life on earth
- State the effects of environmental degradation on soil, water and the food chain
- Give reasons for soil and water conservation being the major issues of concern
- State the consequences of a degraded environment

What is Ecology and What is an Ecosystem?

Session Objectives:

At the end of the session the participants will be able to:

- explain the meaning of ecology and ecosystems
- describe how ecosystems work
- explain how life is sustained in various ecosystems
- describe how various ecosystems are inter-related

Session Duration: 1 hour

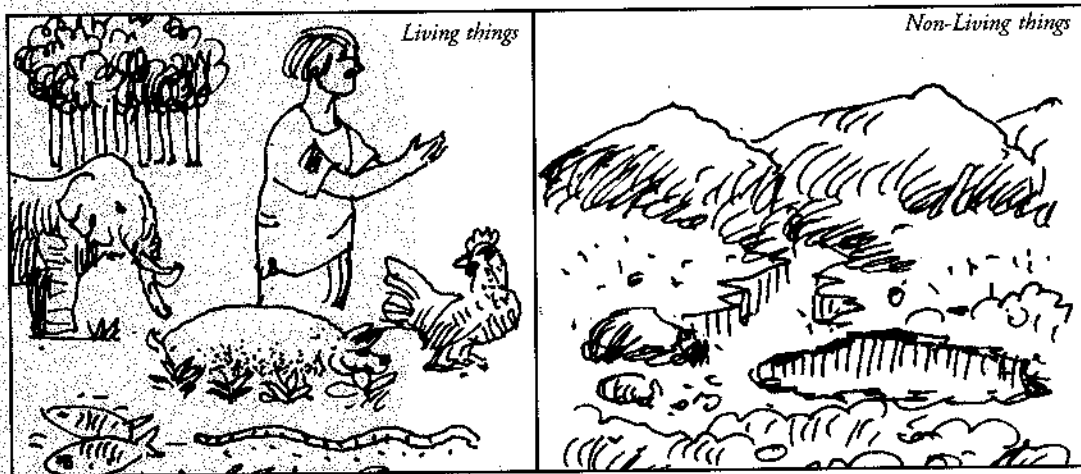
Methods Used: Brainstorming, lecture, group discussion, display of pictures

Materials Required: Chart papers and markers, pictures of various ecosystems (example: forest, village and tank eco-system)

CONTENT

Content 1.1: What are the Living and Non-living Things around us ?

All beings that breathe and have life are called living things. Examples are: plants, animals and human beings.



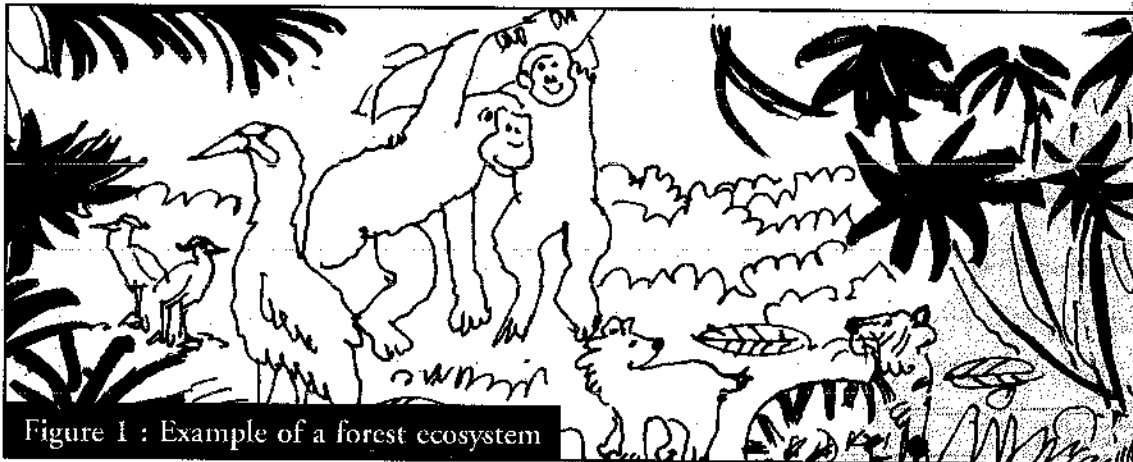
All matter that does not have life, such as air, water, soil, etc. is called non-living matter. However, even though soil, air and water are non-living, they support and sustain life. For example, soil sustains both plant life as well as many living beings such as beetles, worms, larvae and other micro-organisms. Similarly, many aquatic creatures like fish, and other microscopic organisms like plankton, seaweed and algae grow in water.

Content 1.2: What is Ecology?

Ecology is the study of how human beings, plants and animals interact with one other and with major elements in the environment like soil, air and water.

Content 1.3: What is an Ecosystem?

An ecosystem consists of set of living and non-living elements, which are interdependent and in continuous interaction with each other.



For example, in a Forest ecosystem (*Figure 1*) there are various living components like trees, animals and birds, and non-living components, such as water bodies, soil, air, sunlight, etc. Animals like the leopard and tiger live on herbivorous (plant eating) animals like deer. Herbivorous animals in turn depend on the grass and plants in the forest for their food. Grass and plants grow in the soil using sunlight, air and water. The soil gets its nutrients from droppings of animals, decaying plants and animal remains. Thus all the elements in the forest ecosystem are dependent on each other in some way or the other. This set of relations and interacting components in a forest comprises the Forest ecosystem.

Content 1.4: Interactions between various ecosystems

In nature, several ecosystems co-exist, one exerts an influence or depends on the other and thus there are interactions between them. An example of two ecosystems namely a village and a tank ecosystem is illustrated below; how these two ecosystems interact with each other is explained (*Figure 2*).

a) Village ecosystem



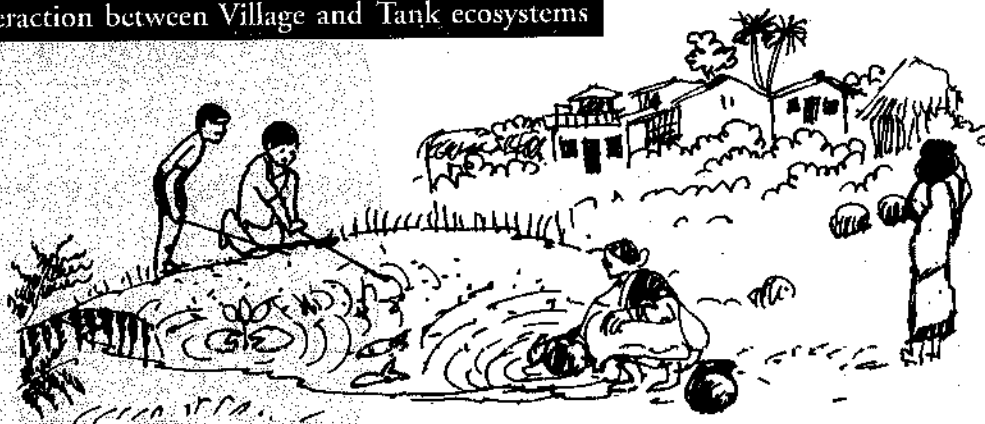
Various elements in a village ecosystem have their own set of interactions. Example: people are dependent on cattle for milk, ploughing, and livelihood activities; in turn cattle depend on human beings in the village to feed them and to take care of them. Various factors in nature like rain, sunlight, wind, natural vegetation, etc. have direct impact on the lives of the people and livestock. Similarly the actions of the people - like cutting of forests, over grazing the animals in pastures, etc. have an effect on the environment.

b) Tank ecosystem



Similarly, a tank supports the life of various creatures and micro-organisms like fishes, birds, plankton, algae, etc. Plankton and algae grow with the help of oxygen in the water and sunlight - fish are dependent on plankton - frogs eat the fingerlings - and so on.

c) Interaction between Village and Tank ecosystems



When a tank forms a part of the village, there is some interaction between the elements of a village ecosystem and the tank ecosystem. When people wash their clothes or bathe in the tank, the water gets polluted with chemicals and the aquatic life is disturbed. When the tank overflows or when the tank bund breaches it destroys the neighbouring fields.

Figure 2: Example of interaction between Village and Tank ecosystem

Process:

Step 1 : Brainstorm the participants to make them understand the living and non-living components of their environment.

Leading Questions:

List all things you saw on your way to the training centre? Which of them are living and which are not? (Alternatively, ask them to draw whatever they saw on their way).

Step 2 : Lecture: Explain what are the living and non-living components in the environment. (refer Content 1.1). Refer to examples given by them and explain.

Step 3 : Lecture: Explain what is ecology and what is an ecosystem. Give the example of a forest ecosystem. (refer Content 1.2 and 1.3, Figure 1).

Step 4 : Explain the inter-relationship between the ecosystems by using the example of village and tank ecosystems. Ask people to give examples of how the two ecosystems affect each other. (refer Content 1.4 and Figure 2)

Step 5 : Clarify doubts if any.



Stop and Check!

Are participants able to describe and give examples of an ecosystem? Are they able to describe and give examples of the inter-relationship between various components in an ecosystem and between ecosystems?



Session: 2

Food Chain – An important Component of the Ecosystem

Session Objectives:

At the end of this session participants will be able to:

- describe the food chain
- describe the nutrient cycle in the food chain
- describe the food pyramid

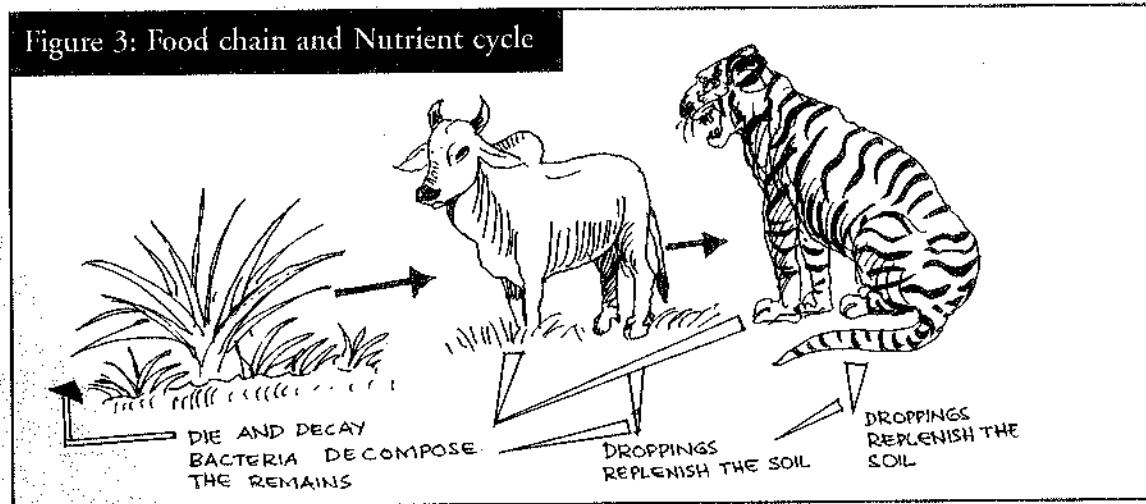
Session Duration: 1 hour

Methods Used: Guided dialogue, pictures, lecture, brainstorming

Materials Required: Chart paper and markers, pictures of animal and plant cut outs to explain food chain and food pyramid (various species of animals can be used - grass eaters, meat eaters, etc.)

CONTENT

Content 2.1: Food Chain

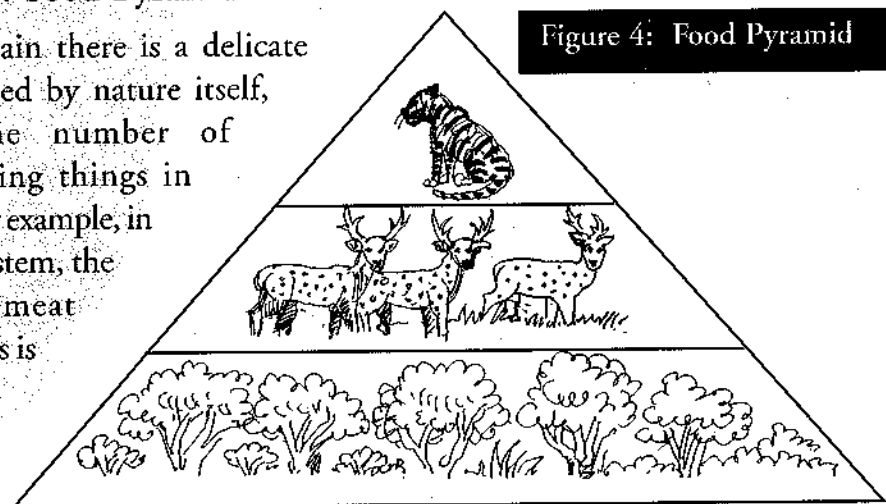


All food originates from the plants. They use water, light and carbon dioxide from the air to make their own food. They also use substances called nutrients from the soil for their growth. (Soil Nutrients have been discussed further in the next session. For definition refer Session 3.6). Plants provide food for the herbivorous animals (like deer). Herbivorous animals are in turn eaten by Carnivorous animals (meat eating animals like tigers). Omnivorous animals eat both plants and other animals. In the above process, food energy passes on from plants to animals in a long chain called the **food chain**. Various components in the food chain (like the plants, the herbivorous, carnivorous and omnivorous animals, etc.) are called the **links** in the food chain.

When animals die, their bodies decay because of tiny worms and bacteria, which feed on them. The decomposed remains of both plants and animals are rich sources of nutrients for the soil. Animal droppings also enrich the soil. Plants use these nutrients for their growth. Thus the nutrients taken from the plants by animals and human beings in a food chain, is returned back to the plants – this is called the **nutrient cycle**.

Content 2.2: Food Pyramid

In a food chain there is a delicate balance created by nature itself, between the number of creatures/living things in every link. For example, in a forest ecosystem, the number of meat eating animals is usually smaller than the number of



plant eating animals, which in turn are fewer than the number of plants/trees/vegetation. If the food chain in a forest ecosystem is drawn in the form of a pyramid then the plants being very large in number will form the broad base of the pyramid and the meat eaters who are the smallest in number form the top most section of the pyramid. This is called a food pyramid. *Figure 4* illustrates a food pyramid.

Any disturbance in the above-mentioned balance affects the environment: If the number of deer and elephants increases beyond proportion, then there will not be enough plants for them to feed on. This causes them to wander outside their natural habitat and enter human habitation in search of food. This usually results in a conflict between animals and humans.

Example of how actions of human beings effect animals - Talavadi (Erode District)

With large areas of forestland being encroached for agricultural activities, the natural habitat of animals has shrunk. This has prompted the elephants to look towards the agricultural fields to satisfy their food requirements. Fields being attacked and destroyed by elephants has become a common experience of the region. In some cases the cultivated fields come in the way of the elephants' regular path to water bodies or their migratory route. This leads to the fields being trampled by the elephants. People react by digging trenches around their fields, by electrocuting these animals or shooting them.

Process:

Step 1 : 'Guided Dialogue', help the participants to evolve a food chain as explained in *Content 2.1* and illustrated in *Figure 3*.

Guiding questions can be: (Probable answers are given in brackets)

- Where does all the food on the earth come from? (crops, other plants, ...)
- Where do plants get their food from? (from air/soil; they produce their own food; ...)
- Who depends on crops and plants for their food? (human beings and some animals like deer, cow, horse, ...)
- What do big animals like tiger, leopard eat? (herbivorous animals like deer, goat, sheep, ...)

Explain to the participants that what they have just drawn or described is called a food chain. Various components in the food chain are called links. Use *Content 2.1* to explain the concept. Alternately keep some picture cut outs of animals and plants and use them to clarify or to evolve the food chain.

Step 2 : **Lecture:** Explain how nutrients which are transferred from plants to animals, are transferred back to soil to be used by plants. Using *Content 2.1* explain the nutrient cycle.

Step 3 : To emphasise the importance of each link in the food chain, cover one of the links in the diagram drawn by them. Ask them whether the absence of the link makes any difference to the food chain. Guide them with questions like: (Indicative answers are given in brackets)

- If there are no tigers or leopards in the forest what happens to the herbivorous population? (Deer and other herbivorous animals will increase in number leading to problems like: over grazing of vegetation; the food in the forest will not be enough to feed the increased number – this may cause the animals to wander out of their natural habitat and into human habitation).
- If there are no herbivorous animals like deer, elephants, etc. what will happen? (The carnivorous animals will lose their natural prey and in search of food may wander into human habitation)

Step 4 : **Sum up** by explaining that each link in the food chain has a purpose.

Step 5 : **Guided dialogue:** Lead the participants to evolve a food pyramid as shown in *Figure 4*. Referring to the food chain evolved by them, help the participants to evolve the food pyramid.

Guiding questions can be: (Indicative answers are given in brackets)

- In the food chain drawn by you, which of the links is bigger in size in terms of number – example: which of the species is more in number in a forest - herbivorous animals like deer, elephants etc. or carnivorous animals like tiger, leopard etc.? (Usually herbivorous animals are more in number as compared to the carnivorous animals).
- Are the plants more or less in number in a forest when compared to the herbivorous animals? (The number of green plants, trees and other vegetation is greater when compared to the herbivorous animals which feed on them).

Step 6 : **Brainstorm** the participants to elicit their opinion (and experiences) about the results of disturbance in the numeric factor of the various links in the food chain.

Leading questions can be: (Indicative answers are given in brackets)

- What happens if the number of snakes, frogs, and birds – all of which feed on rats and insects that destroy crops – were to decrease?
(These creatures feed on rats and insects. If their number declines, the number of insects and rats will go up, which in turn will destroy our crops)
- What happens if meat-eating animals become fewer in number?
(The number of herbivorous animals will increase. This increases the pressure on fodder in the forest. This leads to degradation of the forest and the herbivorous animals move to agricultural fields in search of food and destroy crops).
- Why do elephants, wild buffaloes, etc. sometimes enter our villages?
(Lack of food in their natural habitat).

Step 7 : **Conclude** by explaining to the participants that nature maintains a balance between various components in the environment. If this is indiscriminately disturbed, it adversely affects the environment.



Stop and Check!

Are participants able to identify the origin of food? Are they able to explain - how plants and animals are involved in a food chain? What is a nutrient cycle? How is a food pyramid formed? Have they understood the importance of maintaining the balance between components in an ecosystem?

Session Overview:

All ecosystems are dependent on soil, water and air. Therefore the quality or 'health' of these three resources is critical for the health of an ecosystem. In rural areas soil and water are the two important components on which the livelihood base of people depends. The watershed programme focuses on these two components namely soil and water.

Session: 3



Soil as an Important Natural Resource

Session Objectives:

At the end of this session participants will be able to:

- describe soil as an important natural resource
- describe the formation of soil
- describe the soil composition, profile and texture
- list the important soil nutrients, explain their importance and describe how these nutrients are gained

Session Duration: 1 hour 30 minutes

Methods Used: Brainstorming, lectures, exercises and displaying pictures

Materials Required: Magnifying lenses (4-5 numbers), two pieces of rock, soil samples, tools to dig a pit, chart paper and markers



CONTENT

Content 3.1: Importance of Soil

Soil is one of the most important resources because:

- It provides a place for living things – example: worms, ants, snakes live in it.
- It plays a protective role. For instance when it rains, the soil absorbs water and prevents flooding
- It holds nutrients and water that are essential for plants to grow

Why is soil such a major issue of concern:

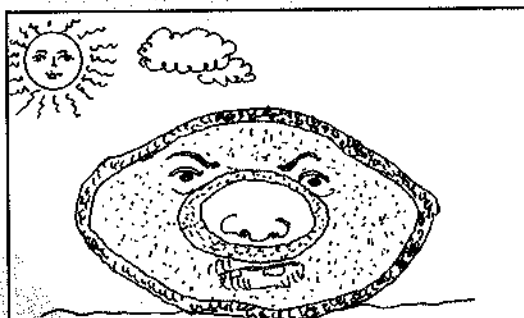
Formation of soil is a very slow process. It takes 500 years to form 1 cm thick layer of top soil. Due to various natural and man-made factors, this top soil is getting continuously degraded and eroded, thus taking along with it, nutrients essential for plant growth. India loses 16.3 -tons/ hectare of soil every year. The concern arises when the rate of formation is much slower than the rate of loss.

Content 3.2: How is Soil Formed?

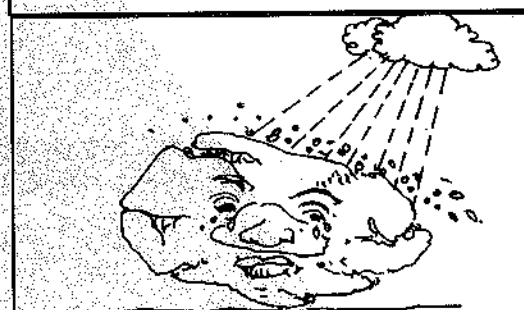
Large mountains and rocks break down into smaller and finer particles due to the action of sunlight, wind and rain. This process is called weathering and takes millions of years. It takes 500 years to form 1 cm thick layer of top soil!

The process of weathering is described below using illustrations (Figure 5).

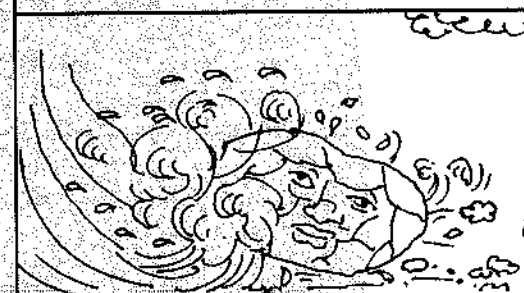
Figure 5: Story of soil formation



Stage 1: The heat of the sun causes the rock to expand during the day.



Stage 3: When it rains water enters these cracks causing them to widen.



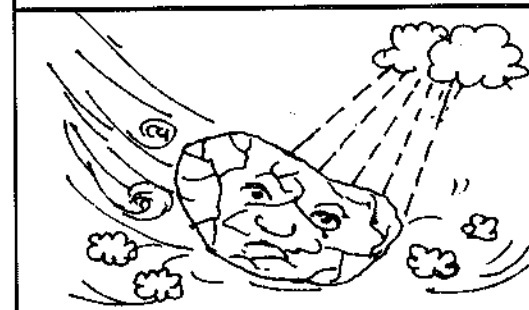
Stage 5: The outer layer of the rock gets worn away by flowing water.



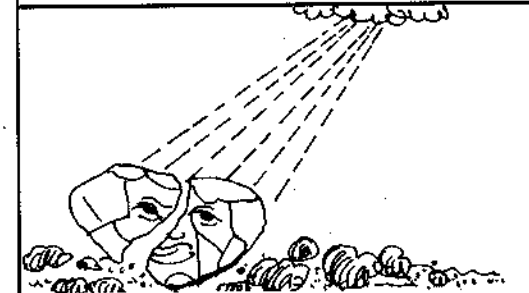
Stage 7: Plants and animals begin to grow on it. Remains of plant and animal matter get deposited in the rock and get decomposed by bacteria. These remain in the upper layer.



Stage 2: At night as the temperature drops, it contracts. As this process continues every day, cracks develop in the rock.



Stage 4: The rock gets thrown around by rain and heavy winds causing it to break into pieces.



Stage 6: The chemicals present in rainwater react with the minerals present in the rock causing it to disintegrate further. Thus the rock breaks up into big, small and extremely small pieces.



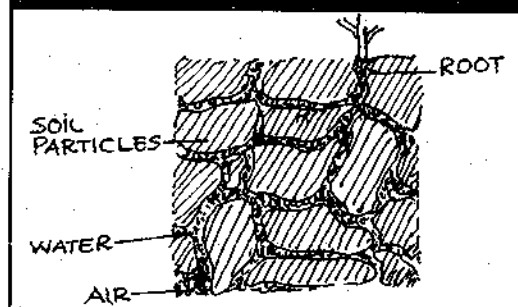
Stage 8: Thus the rock changes into many layers of soil.

Content 3.3: Soil Composition

When dry soil is crushed in hand, it can be seen that it is composed of all kinds of particles of different sizes. Most of these particles originate from the degradation of rocks; they are called mineral particles. Some originate from the residues of plants or animals (rotting leaves, pieces of bone etc.); this is called organic matter. Thus the soil is composed of mineral particles and organic matter. The soil particles seem to touch each other, but in reality there are spaces in between them. These spaces are called pores. When the soil is 'dry', the pores are mainly filled with air. After irrigation or rainfall, the pores are filled with water.

Living matter is found in the soil. It consists of live roots as well as beetles, worms, etc. They help the soil to breathe by loosening its particles. This creates favourable growing conditions for the plant roots.

Figure 6: The composition of soil

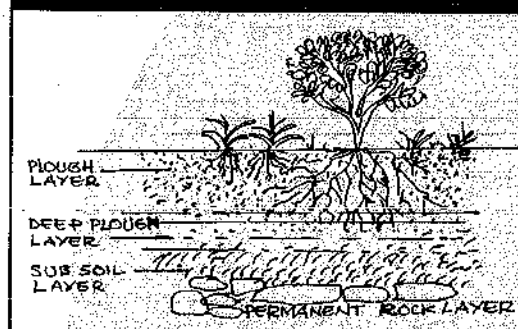


Content 3.4: Soil Profile

If a pit, at least 1 m deep, is dug in the soil, various layers, different in colour and composition can be seen. All these layers together is called the soil profile.

A very general and simplified soil profile is shown in *Figure 7* and described below.

Figure 7: The soil profile



The Plough Layer (the top 20-30 cm thick layer): This is what is called the top soil and is rich in organic matter and contains many live roots. This layer is important for plant life as it holds nutrients, bacteria and water required for plant growth. (Where these nutrients come from, is discussed in *Content 2.6*).

The Deep Plough Layer: This layer contains less organic matter as compared to the top soil. It is less important to plant life except for plants having roots going deep since not much nutrient is stored here, though water is stored for a longer duration.

The Subsoil Layer: This layer hardly contains any organic matter. This layer is not very important for plant life though roots of trees reach it.

The Parent Rock Layer: This layer consists of rocks, from the degradation of which the soil was formed. Hence this rock is sometimes called 'parent material' for the soil.

The depth of different layers varies widely depending upon the area and the nature of the soil and terrain.

Content 3.5: Soil Texture

Soil texture is mainly concerned with the size and shape of the mineral particles of the soil. These particles are sand, silt and clay, which are formed from the weathering of parent rock. The nature of the soil depends on the proportion of these particles in the soil. In general, soil having more than 50% of sand particles is called sandy soil; soil having more than 50% of silt particles is called silt, and clayey soil has more than 50% of clay particles.

Size of Soil Particles:

Sand - .05 – 2mm – particles are visible to the naked eye.

Silt - 0.002 – 0.05 mm – particles hardly visible to naked eye.

Clay - less than .002 mm – particles not visible to naked eye.

The texture of the soil influences the rate of infiltration of water in the soil. In sandy soil, water infiltrates faster (i.e water is absorbed faster) as compared to silt. In clayey soil, the infiltration rate is high in the beginning, but as the soil starts getting moist, the infiltration rate reduces. These characteristics of soils also have an impact on the degree of soil erosion and hence determine the nature of soil conservation structures to be adopted.

NOTE: Describing different soil conservation structures in different soils is outside the scope of this manual. But the facilitator can refer to - *'Watershed Management - Guidelines for Indian conditions'* - by Tideman EM for further reading on how to identify these different kinds of soils and the kinds of conservation structures suitable for these soils.



Content 3.6: Soil Nutrients

As discussed earlier, the top soil is very essential for the plants to grow. Plants require various elements for growth such as carbon, hydrogen, phosphorus, potassium, nitrogen, sulphur, calcium, iron, magnesium, boron, manganese, copper, zinc and molybdenum.

Of the above elements, plants absorb some from the air (carbon and oxygen); some from water (hydrogen and oxygen) and few other elements from the soil. These are called plant nutrients.

Plant nutrients should be present in the required quantities for healthy growth of plants. They can be divided into two categories:

Major elements - ones which are required in larger quantities by the plants - nitrogen, phosphorous, potassium, calcium, magnesium, iron and sulphur.

Minor (or trace) elements - ones which are also essential for plants but which are required in much lesser quantities - boron, manganese, zinc, copper and molybdenum.

The above-mentioned elements (nutrients) are naturally introduced into the soil in the following ways:

1. From the decomposition and degradation of parent rock by the weathering process.
2. From organic matter in the soil, which is derived from the residues of living things such as, plants, animals, etc. These fine particles of decomposed living material get thoroughly mixed up with the mineral particles of the soil.

In case there is deficiency of the required elements in the soil, this can be supplemented by adding organic manure or chemical fertilisers in required quantities.

Experiments promoted by MYRADA to enrich the soil:

- Farmers are encouraged to grow *Cassia Siamia* on the field bunds; it is non-browsable. The trees are annually pruned and the leaves are used in the compost pits made in the field along with soil and dung. This forms good compost for the field. The wood is used as firewood.
- MYRADA Kodli (Chincholi) project: traditionally farmers used to construct field bunds using redgram stalks available in abundance. The redgram stalk bunds start degrading and at the end of 2 years they make excellent compost which is ploughed in.

Process:

Step 1 : Brainstorm the participants to find out their perceptions about soil, using the following guiding questions:

- What is soil?
- Why is it important to you?
- How is the soil formed?
- What does the soil contain?

Elicit answers to the above.

Step 2 : Lecture: Using *Content 3.1* explain the importance of soil.

Step 3 : Rub two pieces of rock together and ask the participants about what they see. Explain that this is where the soil originates from (disintegration of rocks). Using pictures in *Figure 5 and Content 3.2* explain how soil is formed.

Step 4 : Exercise: Ask a few participants to volunteer and bring a handful of soil from outside the training hall from different locations. Provide magnifying glasses to the participants and ask them to observe the soil sample through the lens. Probe them with the following questions:

- What do you see in the soil?
- Are there any living organisms in the soil sample?
- Are all the soil particles of the same size and shape?
- Are all the soil samples the same?

Note down their observations on the chart paper.

Step 5 : Lecture: Using *Content 3.3 and Content 3.5* explain the composition and texture of soil.

Step 6 : Exercise: Take the participants to the ground outside the training hall. Ask a few participants to volunteer and dig a pit 2 to 2 ½ feet deep till a few layers of soil are visible. (Alternately you can keep a 1m deep pit ready for the participants to observe). Probe them with the following questions:

- How many layers of soil can you see?
- What are the different colours of soil you can see?

Ask one of them to scrape out soil samples from different depths and note down which sample has been taken from what depth. Ask everyone to observe (pass the magnifying lens around) and feel (by hand) the various samples. Ask them what are the differences between the samples.

(Probable answers: Soil from lower layer is moist; the top soil is lighter in colour and as the depth increases the colour deepens; top layers are a bit loose as compared to the bottom ones; organic matter like residues of plants or animal droppings can be found in top most layer; etc)

Step 7 : Lecture: Ask the participants to assemble back in the classroom. Using *Figure 7 and Content 3.4*, explain the profile of soil.

Step 8 : Brainstorm the participants to find out their perceptions about soil nutrients using the following guiding questions:

- What do you understand by soil nutrients? Why are they essential?
- What are the various nutrients that you know of?
- Where do these nutrients come from?

Elicit answers to the above.

Step 9 : Lecture: Using *Content 3.6* brief the participants about various soil nutrients and where they come from.

Step 10: Sum up the session by reinforcing the importance of topsoil and the need to conserve the soil.

NOTE: This is not a detailed session on soil nutrients. Hence it is not essential to go in depth about how the soil loses nutrients or where they are stored etc. However if the facilitator feels the need to know more about soil nutrients to conduct the session he/she can refer - *Watershed Management - Guidelines for Indian conditions - by Tideman EM.*



Stop and Check!

Are the participants able to explain the importance of soil? Are they able to describe the process of soil formation? Are they able to describe the soil composition, profile and texture? Are they able to list out important soil nutrients and say how they are gained? Have they understood the need to conserve and protect top soil?



Water as an Important Natural Resource

Session Objectives:

At the end of this session participants will be able to:

- describe the hydrological cycle.
- state the importance of water and the need to conserve it.

Session Duration: 1 hour

Methods Used: Brainstorming, displaying pictures, demonstration, group discussion

Materials Required: Pictorial chart/transparencies of water cycle, a stove for heating water, a vessel with a lid

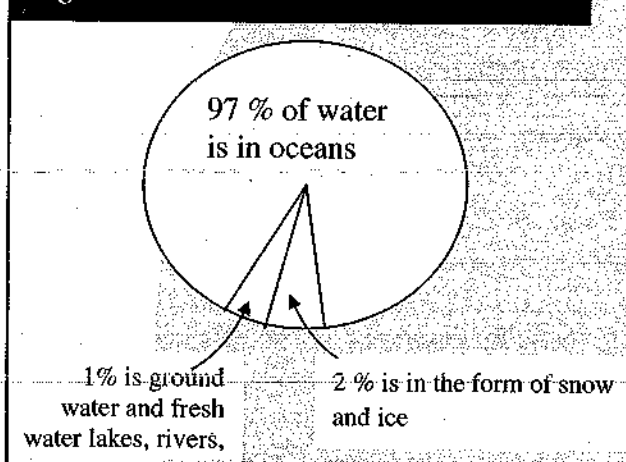
CONTENT



Content 4.1: Importance of Water

- Water is one of the elements that sustain life on earth - plants require water for their growth; for animals and human beings water is one of the basic needs of life.
- Life for human beings is unimaginable without water - they need water for drinking, washing, bathing, cooking, agriculture, etc.
- Almost 85% of the human body is made up of water.
- Of the total water available on earth, 97% is saline (mainly in oceans), 2% is frozen (as ice caps), 1% is ground water and fresh water (in lakes, rivers, ponds, tanks, soil moisture, etc.) - refer Figure 8

Figure 8: Distribution of water on earth



This means that even though water is present in abundance on earth, water available for use is only 1%. According to national data, out of 1% of water available for use, 66% goes for irrigation, 26% is used by industries, and the remaining 8% is used for human and animal consumption.

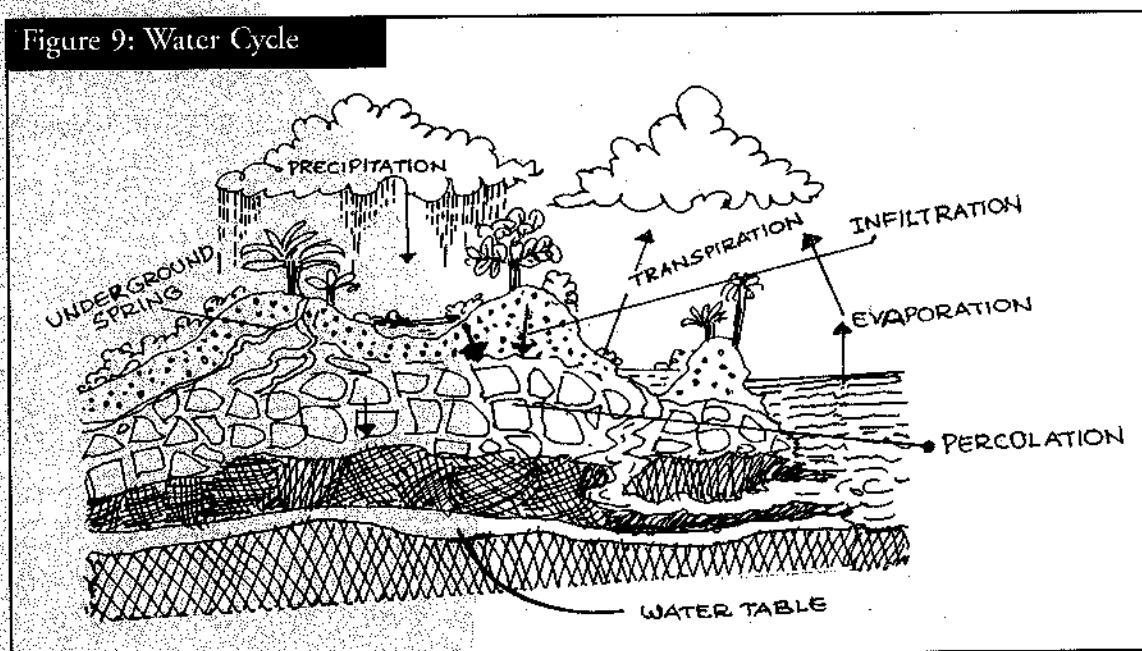
Content 4.2: The Water Cycle

The water (moisture) present on our planet is being recycled constantly. How does this happen? When warm air blows over the exposed water bodies it collects moisture along with it and gets converted into gaseous form called vapour. This vapour rises up (this process is called evaporation) and when it meets the upper parts that are cooler, it condenses (turns into liquid) and settles on the dust particles in the air; these form small droplets. These droplets form either clouds or fog. Due to increased size and weight, the droplets fall back to earth in the form of rain, snow or sleet (this in technical terms is called precipitation), and fill up the water bodies. The cycle is then repeated. This cycle is explained in *Figure 9*.

Besides water bodies, plants and vegetation also contribute to the water vapour suspended in the air. This is through a process called transpiration (something similar to perspiration in human beings).

The rain that reaches the soil surface is absorbed by the soil through infiltration or flows on the surface. The water that enters the soil is called sub-surface water. Sub-surface water first increases the soil moisture up to the soil capacity, and then starts flowing through the soil. Part of the water held in the soil either evaporates or is absorbed by vegetation, the rest of it recharges the ground water reservoir.

Figure 9: Water Cycle



Process:

Step 1 : Brainstorm the participants to elicit their opinion regarding importance of water. (This can be done by directly asking them about the importance of water or by gradually making them assess the water situation in their village over a period of time).

Guiding questions are: (Probable answers are given in brackets after the questions):

- Why is water so essential for life? State its uses.
(Water is essential for plant life; human beings depend on water for drinking, washing, agriculture; ...)

- What are the various sources of water in your village?
(Open wells, bore wells, village tank, ...)
- Are these sources able to cater to the existing needs of the villagers - for drinking, domestic use, irrigation, etc.?
(Out of the two bore wells in the village used for drinking, water from one has turned salty; _ number of open wells have dried up; _ number of bore wells have just enough water for irrigation - another year or two these too might fail; ...)
- How has the situation changed with regards to water availability in your village in the past 5 years?
(Good drinking water is available in both the bore wells but inadequate; _ number of open wells were deepened in the last 2 years; _ number of new bore wells were dug, but water was not available even at a depth of _ feet; ...)

Step 2 : **Lecture:** Using *Content 4.1* explain the importance of water to the participants. Using the pie diagram (*Figure 8* in *Content 4.1*) depicting the water availability, explain why water is a scarce resource.

Step 3 : **Brainstorm** the participants to help them think about the sources of water on earth.

Leading questions can be: (Probable answers have been given in brackets after the question)

- Where does water on earth come from? (rainfall, ...)
- How do you get rainfall? (from the clouds; ...)
- How are clouds formed? (evaporation of water from water bodies; ...)

Probe further based on the replies.

Step 4 : **Sum up** the discussion by showing the picture of Water Cycle in *Figure 9*. Explain the cycle using *Content 4.2*.

Step 5 : For **demonstration** of the water cycle - heat some water in a vessel. When the water begins to boil and steam rises, cover the vessel with a lid for a few minutes. Remove the lid and show participants the drops of water that have condensed on the lid. When the lid cools, the drops of water fall down. Explain to them the similarity between this experiment and the water cycle.



Stop and check!

Are the participants able to say why water is such a scarce as well as important resource?
Are they able to explain the water cycle?

Environmental Degradation – Its Causes and Effects

Session Objectives:

The aim of this session is to make the participants concerned about the degrading environment. At the end of this session participants will be able to:

- identify the causes of environmental degradation
- identify natural resources that are degraded
- explain soil erosion and its causes
- explain some of the factors leading to water scarcity
- explain the effects of environmental degradation on the food chain and on climate

Session Duration: 2 hours

Methods Used: Brainstorming, timeline exercise, lecture

Materials Required: Chart papers and markers



NOTE: At least three facilitators are required to facilitate the time line exercise in this session

CONTENT

Content 5.1: Causes of Environmental Degradation

Degradation is a process which occurs when resources are overused or misused without replenishing the same. Human induced factors like increasing population, inappropriate agricultural practices, conspicuous consumption, poor governance, over-grazing, etc. are some of the major causes for the degradation of resources such as land and water. Nature also has a role to play in its own degradation. Earthquakes, floods, etc. are natural occurrences, which affect environment adversely in the short term. As nature maintains a delicate balance between its various components (as discussed in previous sessions), degradation can lead to major imbalances in the ecosystems - affecting both plants and animals and invariably human life.



Content 5.2: Effects of Environmental Degradation

5.2.1 Effects of environmental degradation on soil:

Soil erosion (washing away of top soil), salinisation (excessive salts in the soil), depletion of soil nutrients, deforestation (loss of vegetative cover), accumulation of toxic substances (due to toxic waste disposal in the soil), etc. - all lead to soil degradation. The estimated annual crop productivity losses in India, due to land degradation ranges from 4% to 6.3% of the total agricultural output.

Soil Erosion:

Soil erosion is the process by which soil gets displaced from its location due to wind and water. Of all the soil eroded every year, 10% goes to rivers and streams, 30% goes to oceans and 60% gets displaced from one location to another.

Erosion is a natural process, which cannot be totally prevented but the problem arises when the rate of erosion exceeds the rate of formation of soil!

Areas of Concern:

- Every year the world loses 5 to 7 million hectares of arable land due to erosion.
- India loses 16.3 tons/ha of top soil every year. (Slightly more than 1 mm depth of soil).
- 177 Million Hectares of land in India is degraded.
- The observed average rate of sedimentation in Indian reservoirs is 8.51 hectare metre/100 sq.km/year as against the assumed rate of 3.02 hectare metre/100 sq.km/year.

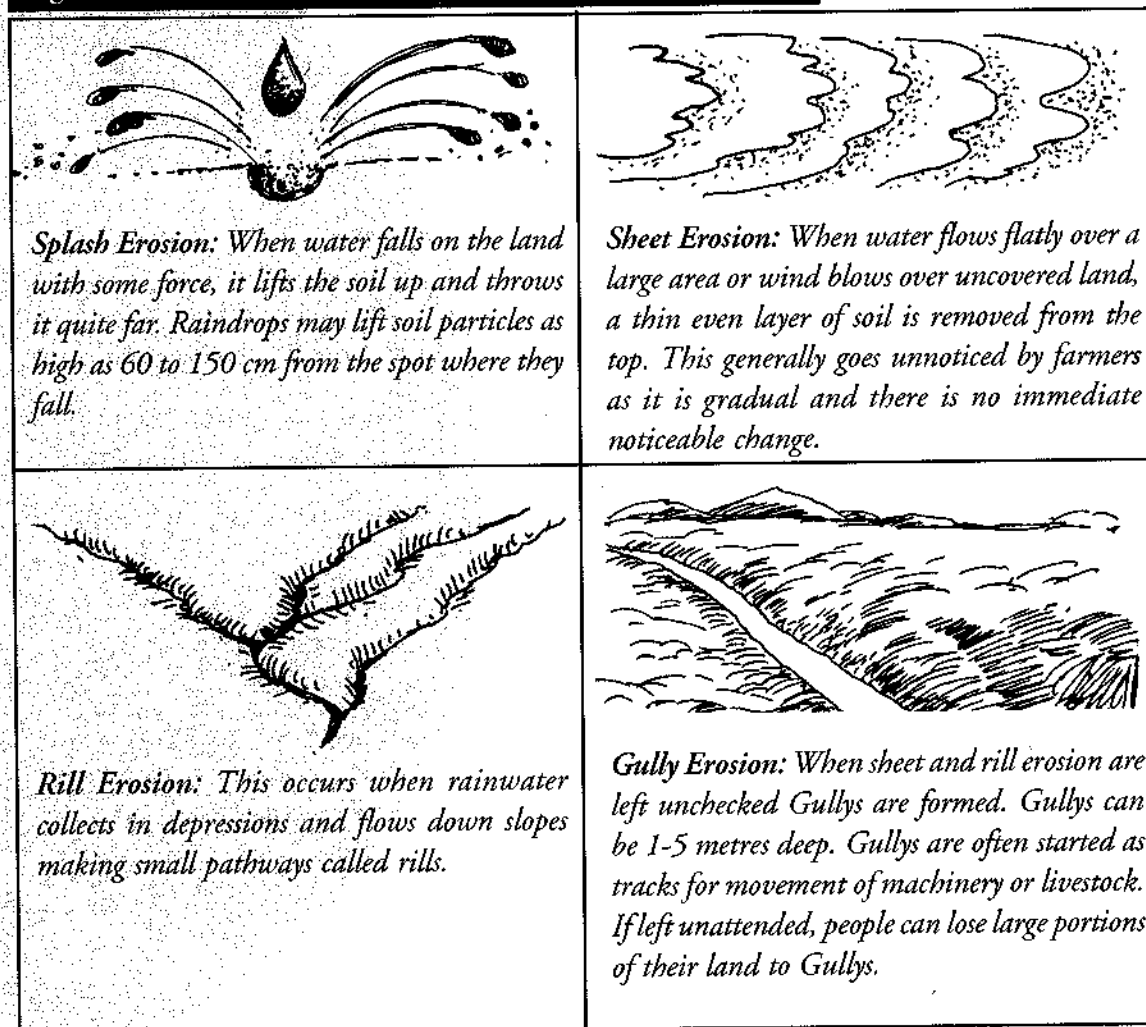
Source: Resource Management in Rainfed Drylands - an information kit produced by MYRADA and International Institute for Rural Reconstruction (IIRR).

Problems related to soil degradation and their causes:

Problems	Causes
Soil erosion	• Depletion of forest and bush cover especially on upper reaches. • Lack of protective water conservation structures • Raindrop impact and surface flow • Food requirements of an ever-increasing population leading to intensive agriculture involving excessive tillage without adequate protection and increasing cultivation on upper reaches.
Salinisation of soil	• Poor drainage leading to water logging • High evaporation
Depletion of soil nutrients	• Intensive cropping using high yielding varieties • Repeated tillage • Excessive and ill-managed use of fertilizers

Toxicity and pollution	• Dumping of industrial wastes in waterbodies • Direct sewage disposal in the fields
Loss of vegetative cover	• Indiscriminate deforestation • Overgrazing or fire • Mismanagement of common lands
Physical degradation	• Compaction of top soil due to movement of heavy machinery (vehicles etc.) • Soil crusting due to reduced organic matter • Shelter requirements of an increasing population puts pressure on limited land resources forcing the conversion of agriculture and forest land for habitation • Large-scale projects of mining, development of roads, dams etc.

Figure 10: Different kinds of soil erosion caused by water



5.2.2 Effects of environmental degradation on water:

The problem of water is usually one of scarcity or of plenty - hence we often hear of droughts or floods. Scarcity forces competition for various uses of water (for agriculture, industry, domestic etc.) and is today the cause of many conflicts between neighbours, villages and countries.

A growing population and its various needs has led to excessive withdrawal of underground water without recharging its sources, resulting in rapid reduction of available water. Besides scarcity, industrial wastes and pollutants also contaminate water rendering it useless or even harmful.

Following are some of the factors causing water scarcity:

- Excessive withdrawal of water from its sources - without measures to replenish it
- Siltation of water bodies due to unchecked erosion upstream
- Pollution of water by human, industrial and agricultural wastes
- Growing population and growing demand for water for industry and agriculture
- Inefficient management of water (leaking pipelines, improper waste water management, inappropriate crops and cropping patterns, flood irrigation, etc.)
- Loss of vegetation, which not only affects the soil but also water percolation and recharge.
- Deforestation leading to diminishing rainfall

Important figures related to water resources:

- India receives about 400 million hectare metres of rainfall annually, of which -
 - 17.5% is lost in evaporation
 - 28.75% flows as surface run off
 - 54.75% infiltrates into the soil
- 1% of water on earth is available for use by life on earth. (The remaining 99% is in the oceans and in the form of snow and ice.) Of this 1%, 66% goes for irrigation and 26% is used by industries. Only the remaining 8% is used for human and animal consumption.

Source: Resource Management in Rainfed Drylands - an information kit produced by MYRADA and International Institute for Rural Reconstruction.



NOTE: Often, the problem of water is not so much its scarcity or plenty but more of the management of the existing resources. In Cherrapunji (in the State of Assam), which receives one of the highest rainfalls in the world, people do not have water to drink four months after the monsoon is over.

5.2.3 Effects of environmental degradation on the food chain and climate:

The changing water and soil situation has led to changes in people's food habits, agricultural practices, etc. In order to deal with the increased pressure on land available for food production, farmers introduced chemical fertilisers and pesticides. But due to overuse or imbalanced use, this has affected the condition of the soil, the quality of food produced and in turn people's health.

Reduced pastureland has adversely affected fodder availability. Illegal poaching and hunting has lead to drastic reduction in the number of wild animals. Infact many of the wild animals have now been categorised as endangered/ protected/ rare species. All this has disturbed the natural balance in the ecosystem.

Due to the changes in the rainfall pattern and pollution, the earth is growing warmer each year. This process, called global warming, has become a major concern; some areas may be flooded; it may have an impact on agriculture.

If we envision human needs for the year 2020, comparing it to the situation in 1994-95, it would look like this: (all figures are for India)

	1994-95	2020
Population (in millions)	900	1400
Population depending on rainfed agriculture (in millions)	360	560
Animal Population (in millions)	450	650
Land availability per person (in hectares)	0.15	0.07
Total water needs (in million hectare metres)	8	24
Fertiliser use - NPK (in million tons)	12.5	45+
Land degradation	60%	-

Source: Resource Management in Rainfed Drylands - an information kit produced by MYRADA and International Institute for Rural Reconstruction.

From the above table it is obvious that the challenges of ensuring the basic needs for our population in the coming years will weigh heavily on the future generation - therefore we need to plan right now.

Process:

Step 1 : Brainstorming: to find out participants' opinion on the causes of environmental degradation.

Guiding questions are: (Indicative answers are given in brackets after each question)

- Can you identify some changes in your natural environment (can be related to air, water, soil, climate, etc.), that have affected your life in the recent past?

(Five years ago we could get fodder and fuel wood within half a kilometre radius of our village, today we have to travel two-three miles in search of it. Same is the situation with water - till three years ago we could get potable water from the village hand pump; today water from the hand pump can no longer be used for drinking as it has turned salty ...)

- What do you think are the causes of these situations you have stated? (Over-exploitation of resources without replenishing the same, ...)

Step 2 : Conduct **timeline exercise** as explained below:



Facilitator's Note: Make sure that each group has at least one elderly person from the village. Take the participants from the past through the present and lead them into a future scenario. What should emerge is that it is necessary to look into the past history and identify causes for the present ecological problems in the village. Participants must be able to understand that if immediate steps are not taken, their livelihoods could be affected adversely for several generations.

To facilitate this exercise there should be minimum three facilitators - one handling each of the areas mentioned below.

Divide participants into three groups and ask them to discuss one of the following topics each. Allot some time for the exercise. Guide them from past through the present to lead them into the future regarding each of the topics using the guiding questions given in the table below:

	Topic 1 - Soil Degradation	Topic 2 - Water Situation	Topic 3 - Environment
PAST	• What was the condition of land/soil in your village 10 years ago? • What crops did you grow? What was their yield? • What was the situation with regards to availability of fodder and fuel wood in those days? • Etc	• What were the sources of water in your village 10 years ago? • What was the water availability for agriculture? • How far did you have to go to fetch water for domestic use? • Etc.	• Name all the tree and animal species that existed in and around your village 10 years ago • Did they meet your needs of fruits, fuel, fodder, etc? • How was the climate 10 years ago in your village? • Etc.

	Topic 1 - Soil Degradation	Topic 2 - Water Situation	Topic 3 - Environment
PRESENT	• What is the condition of land/soil in your village today? How has this changed in the past 10 years? • How has this change affected your agricultural practices and livelihoods? • What is the situation with regards to fodder and fuel wood availability today? • Etc.	• What are your village's water sources now? • How has the village coped with increased demand for water - for both agricultural and domestic purposes over the years? • Etc.	• Do all those species exist today? What new species are now seen or grown in and around your village? • Do they meet your fruits, fuel, fodder, needs? • How has the climate of your village changed from the past? • Etc.
FUTURE	If you continue your present practices- can you imagine the condition of soil in your village 5 years hence? How will it impact on agricultural yield, fuel and fodder availability, people's health, etc.?	If you continue to use and manage water in the same way, how do you foresee the water availability in the future?	What other changes in the environment do you predict for the future?

Step 3 : Ask each sub-group to present their reflections on the topic in the group. Allow other participants to add their own views to the presentations.

Step 4 : Lecture: Sensitise the participants about the causes and effects of environmental degradation on soil, water, food chain, climate, etc. (refer Content 5.1 and 5.2)

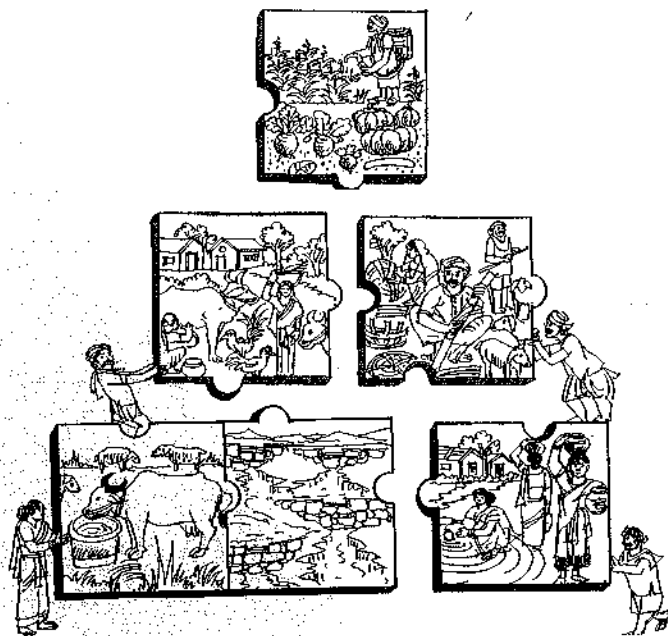
Stop and Check!

Are the participants able to state the causes of environmental degradation? Are they able to state the effects of environmental degradation on soil and water and explain why it is a cause for concern? Are they able to state the effects of environmental degradation on food chain and climate?



The image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. On the right side, there is a large, dark, textured triangular shape that appears to be a shadow or a piece of tape covering part of the paper. The texture of this shape is grainy and irregular. The overall appearance is that of a scanned document or a photograph of a piece of lined paper.

Concept of Integrated Watershed Management



Module Overview:

Integrated watershed management is an approach that brings together appropriate technologies and social strategies for optimum use of natural and human resources within a drainage area. Its aim is to improve the livelihoods of the people who depend on the resources of the watershed and to enhance their ability to manage these natural resources in a sustainable manner.

Module Aim and Objectives:

The aim of this module is to familiarise participants with the concept of integrated watershed management and its components.

At the end of this module, participants will be able to:

- Explain the meaning of watershed
- Explain the concept of integrated watershed management
- Give reasons for the need of an integrated approach in watershed management
- List the different components in an integrated watershed management programme
- Describe the inter-relation between various components of a watershed

Sessions

1	Topic	: What is a Watershed?
	Duration	: 1 hour
	Methods used	: Brainstorming, lecture, demonstration, (field visit)
	Materials required:	Watershed model, soil/sand to make a model if required, peepul leaf, water, pictures of a watershed, chart paper and markers
2	Topic	: What is Integrated Watershed Management and why is it required?
	Duration	: 1 hour
	Methods used	: Brainstorming, guided dialogue, lecture
	Materials required:	Chart paper and markers
3	Topic	: What are the components of an Integrated Watershed Management Programme?
	Duration	: 1 hour
	Methods used	: Brainstorming, guided dialogue, story telling, lecture, display of pictures
	Materials required:	Pictures of various components of the watershed, pictures depicting impact of integrated approach to watershed, chart paper and markers

Total Duration: 3 hours

What is a Watershed?

Session Objectives:

At the end of this session participants will be able to describe a watershed.

Session Duration: 1 hour

Methods Used: Brainstorming, lecture, demonstration

Materials Required: Watershed model (soil/sand to make a model if required) water, pictures of a watershed, chart paper and markers



CONTENT

Content 1.1: What is a Watershed?

Rainwater falling on hills flows down in small rivulets. The rivulets join small streams. The small streams join bigger streams further down. The bigger streams finally join rivers. The entire area that supplies water to the stream or the river, i.e. the **catchment area**, is called the watershed of that particular stream or river.

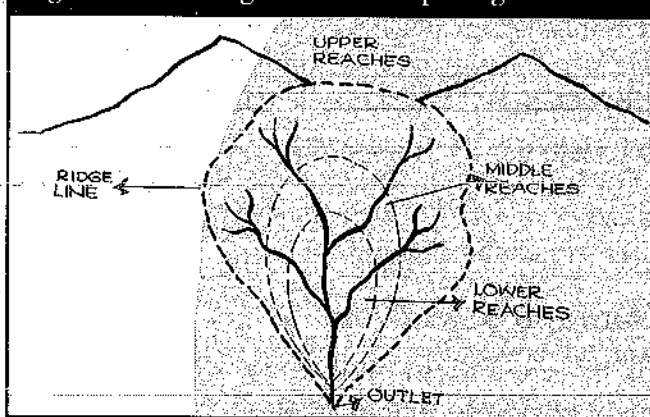
In technical terms a watershed is a hydro geological unit, encompassing all the land that lies within a drainage basin drained by a network of rain fed streams. All water in this area flows from the **ridgeline** of the area to a common point which is known as the **outlet**. A **ridgeline** is a dividing line between watersheds.

For the purpose of management and treatment, the watershed area can be divided into three parts called:

- Upper Reaches
- Middle Reaches
- Lower Reaches

Upper-reaches are close to the ridgeline i.e. the higher elevations in the watershed; the lower reaches lie close to the outlet of each watershed. Middle reaches lie in-between.

Figure 1: Line diagram sketch depicting a watershed



Apart from the physical elements describing a watershed mentioned above, there is a social aspect to the watershed which makes its management difficult. All the people owning land in the watershed or depending on the watershed's resources may not live within the same village or watershed. There may be farmers living in one watershed who own and farm land in another or use its resources. There may be landless. There may be women who collect fuel, fodder, fibre, etc. There may be some farmers who own or use lands in more than one watershed. The social aspect plays a major role during the formation of institutions for managing the watershed programme. Hence it is very essential to understand this complexity before forming institutions under the programme. This issue has been dealt with in greater detail in another module on 'Institutions in a Watershed Programme' - with a focus on Watershed Development Associations (WDAs).

Process:

Step 1 : Display a watershed model. If there is no model ready, you can make a watershed/micro catchment model using a pile of sand or soil and other locally available materials. Using *Content 1.1* explain the model - explain the terms: micro watershed, micro catchment, ridge lines and drainage lines, upper/middle/lower reaches, etc..

This session can be facilitated by using the following **Leading Questions**:

- What happens when it rains?
- Where does all the water falling in this area flow towards?
- From where does the water drain out of the area?

If a model is available pour water on the model and demonstrate the flow. Explain what happens when it rains.

Facilitator's Note: Use of models, pictures and materials like peepul leaves are important tools for this session. Alternatively, if time permits, the participants can be taken for a quick exposure to a nearby watershed; this helps them to understand the watershed concept in greater depth.



Step 2 : **Brainstorm** the participants to make them aware of the social dynamics of a watershed.

Leading Questions:

- Which is the major nalla/drainage near your village? From which directions does water drain into the nalla? (ask the participants to sketch the drains)
- Is your village boundary the same as the watershed boundary?
- Are there people living outside your village who have land in your watershed or who are dependent on its resources?
- Do people from other neighbouring villages cut grass or graze cattle in your watershed?
- Do people living in your village own lands in another watershed or/and are they dependent on its resources?

Elicit answers.

Step 3 : **Lecture:** Explain that the watershed areas do not strictly follow administrative/ village/ revenue or social boundaries. **Socially, a watershed association includes all those who depend on the watershed's resources including farmers, landless and women. They are usually called "Stakeholders" (refer box in Content 1.1)**



Facilitator's Note: Explain to the participants that the social aspect of the watershed is a very important determinant of membership in watershed institutions under the watershed programme; it will be dealt with in a greater detail in the Module 4.1 - "Institutions in a Watershed Programme - with a focus on WDAs, where membership to the WDA will be discussed.



Stop and Check!

Are participants able to describe a watershed in terms of its physical and social characteristics?

What is Integrated Watershed Management and Why is it Required?

Session Objectives:

At the end of this session participants will be able to:

- explain the concept of integrated watershed management
- give reasons why integrated watershed management is required

Session Duration: 1 hour

Methods Used: Brainstorming, guided dialogue, lectures

Materials Required: Chart paper and markers

CONTENT

Content 2.1: Why is Integrated Watershed Management (IWM) Required?

As seen in the degradation spiral (*Figure 2*), degradation of natural resources and increased dependency on the degraded resources for livelihoods form the basis of a vicious cycle. An intervention in the form of Integrated Watershed Management is required to break this cycle and arrest the process of degradation.

In rural India, a large percentage of people cannot meet their basic needs because they are dependent on agriculture and natural resources which are being degraded and depleted rapidly by erosion, exploitative harvesting of trees, overgrazing and indiscriminate use of water sources. The objective of IWM is to organise and motivate people to use and regenerate these resources so as to provide a sound and sustained base for their livelihoods.

On one hand there is a continuous degradation of natural resources to meet the needs of humans and livestock; on the other hand these natural resources have to be replenished in order to sustain life and livelihoods especially of the poor. A balancing act has to be carried out by supporting natural regeneration of resources and by reducing the damages caused due to natural and human interventions. Involvement of people at the local level is critical to this strategy. It also needs a supportive official policy and adequate resources.

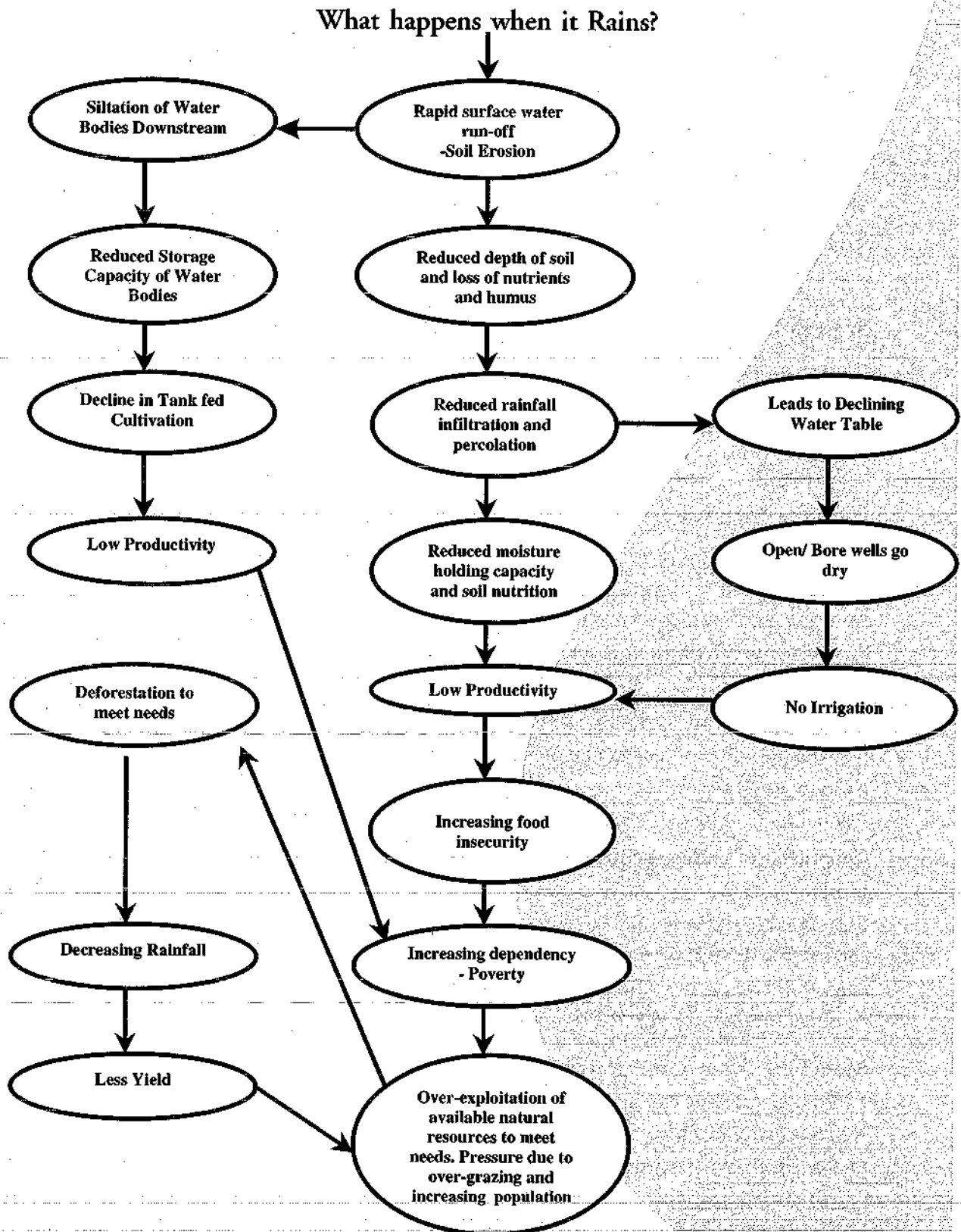
Main Objectives of Integrated Watershed Management Programme:

- To conserve the existing natural resources (soil, water and vegetation).
- To regenerate degraded resources.
- To promote institutions and systems to manage the resources conserved and regenerated.
- To improve the livelihood base of the people and to provide them with more options.
- To find ways of sustaining the processes, institutions and impact resulting from the programme.



Content 2.2: The Process of Degradation and its Impact

Figure 2: The Degradation Spiral





Facilitator's Note: The starting point for evolving the 'Degradation Spiral' along with the participants can be: "What happens when it rains heavily"? Lead on from here using guided dialogue methodology to evolve various steps in the process of degradation as shown in *Figure 2*. The pressure on land and resources due to overgrazing and population increase could be stressed as a cause of degradation.

Content 2.3: What does Integrated Watershed Management mean?

Watershed management is an approach that brings together appropriate technologies and social strategies for optimum development and use of land, plant, water, human and animal resources within a drainage area, so that the basic needs of people and animals are met in a sustainable manner. This also lays a basis so that future generations will enjoy a more healthy and productive resource base than the present generation.

IWM is an approach in addressing the watershed development in a holistic way to include components like horticulture, forestry, soil and water conservation, water management, biomass, livestock, agriculture practices, integrated crop management, livelihoods of the people, etc.

Principles of Watershed Management:

- **Catch water where it falls / Make water walk:** Conserve as much rain water as possible in the area where it falls and drain out excess water with a safe velocity which does not wash the soil away.
- **Bring life back to soil:** Replenish the soil to get maximum productivity and manage it in a way that sustains this productivity.

Address three objectives - productivity, sustainability and equity: Maximise productivity per unit area, per unit time and per unit of water. Ensure sustainability of the ecosystem maintaining the balance between human-animal-plant-land-water in the watershed. Focus on the marginalised poor sections particularly the landless and the women in every activity or investment.

The History ...

In the earlier days, the major activity promoted under soil and water conservation was bunding. Issues related to common resources and private lands lying fallow were not adequately addressed. There was no initiative to integrate traditional technologies and people's "solutions" with the project components. People were considered to be "beneficiaries" of the project. There was little space provided for their involvement in planning, budgeting and implementation. In many places structures like contour bunds constructed to benefit the farmers created hindrances to their farming operations and were soon destroyed. The basic assumption of older watershed projects was that the project (with some supervision from Government Departments) would achieve the objectives of

controlling erosion and managing water flow on completion of all physical interventions. People's institutions seldom formed part of the strategy and wherever included, they were not invested in adequately so that they could mature. As a result the impact of the project interventions was minimal.

Evolution of Present Watershed Guidelines ...

This experience led the government (Ministry of Rural Development – Government of India) in 1994 - 95 to adopt an approach which tried to integrate the various components of a watershed such as land (private – cultivated and fallow - and common), water (surface water and sub-surface water...), vegetation (biomass, forest, ...), etc. People became the focus of this approach because they alone could achieve and maintain the balance required for this integration. Guidelines were issued to the intervening agencies to support people to be decision makers, planners and implementers in laying the basis for an integrated approach. This approach came to be known as Participatory Integrated Watershed Management, which after much discussion and lobbying has been enshrined in the 'Common Guidelines for the Watershed Programme,' (2000 – 2001). The issues of equity, however, were not adequately addressed and still require further and constant attention.

Process:

Step 1 : Recall key points regarding the effects of environmental degradation on soil and water from the previous module on "Understanding Our Natural Environment".

Step 2 : Evolve a spiral similar to the one shown in *Figure 2 (Content 2.2)* based on the participant's experience using **Guided Dialogue with Leading Questions** like:

- What happens to the soil when it rains heavily?
- What happens if the topsoil gets eroded?
- What happens if the soil loses its nutrients?
- What happens to the water bodies (lakes, tanks, ponds, etc.) if soil upstream gets eroded?
- What happens if the water bodies get silted?

Based on the answers to each of the questions evolve various steps in the process of environmental degradation. (*refer Figure 2*).

Step 3 : Explain the spiral evolved and clarify doubts if any.

Step 4 : **Brainstorming:** From the 'spiral', lead the participants on to ways of arresting or minimising degradation and where to start.

Leading Questions:

- What can we do to prevent such imbalances or improve the general condition of our environment?

Elicit answers and explain how watershed management can help in reversing the process of degradation. (refer Content 2.1).

Step 5 : Lecture: Sum up by explaining what an integrated watershed management approach means and give a brief on how this approach came to be adopted. (refer Content 2.3).

Stop and Check!

Are the participants able to explain what integrated watershed management means and why such an approach is needed to develop and manage natural resources?



Session: 3

Module 2.3

What are the Components of Integrated Watershed Management Programmes?

Session Objectives:

At the end of this session participants will be able to

- list out the components of integrated watershed management programme
- state why all the components need to be addressed

Session Duration: 1 hour

Methods Used: Brainstorming, guided dialogue, story telling, lecture, display of pictures

Materials Required: Pictures of various components of the watershed, pictures depicting impact of an integrated watershed strategy, chart paper and markers.

CONTENT

Content 3.1: Elements of a Watershed

A watershed is a unit comprising various interdependent resource systems in nature. E.g. vegetation growing in the watershed, surface/sub-surface water, arable/non-arable lands, soil, trees, agriculture, livestock, people accessing its resources – all form an integral part of the watershed.

For example: in a typical soil and water conservation (SWC) programme, emphasis is on recharge of sub-surface water through suitable structures. However, unless water is used

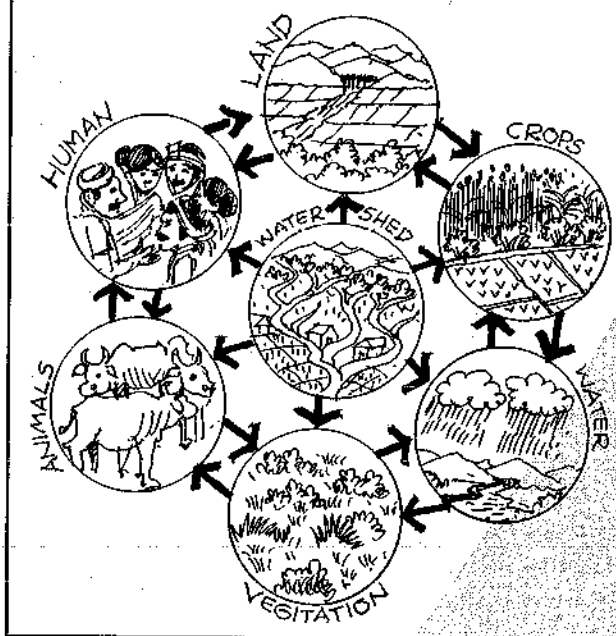


efficiently, and the present practice of over exploiting ground water reversed, the SWC programme will not have the intended impact. Another example: The introduction of livestock programmes, without ensuring that the watershed programme promotes adequate pasture land development and fodder will not be successful.

For a visible and effective impact of a watershed programme on the natural resources and on the livelihoods of the people, it is essential to address all these components in an integrated manner. For example: the watershed programme cannot only focus on constructing structures to conserve the

soil and increase the water holding capacity of the soil; it must simultaneously promote improvement in soil fertility by adopting suitable land use and agricultural practices and also build linkages with different markets and service providers. It must also ensure that people keep a balance between the availability and use. Only this integrated approach will result in long term increase in production and incomes and lay the basis for sustainable development.

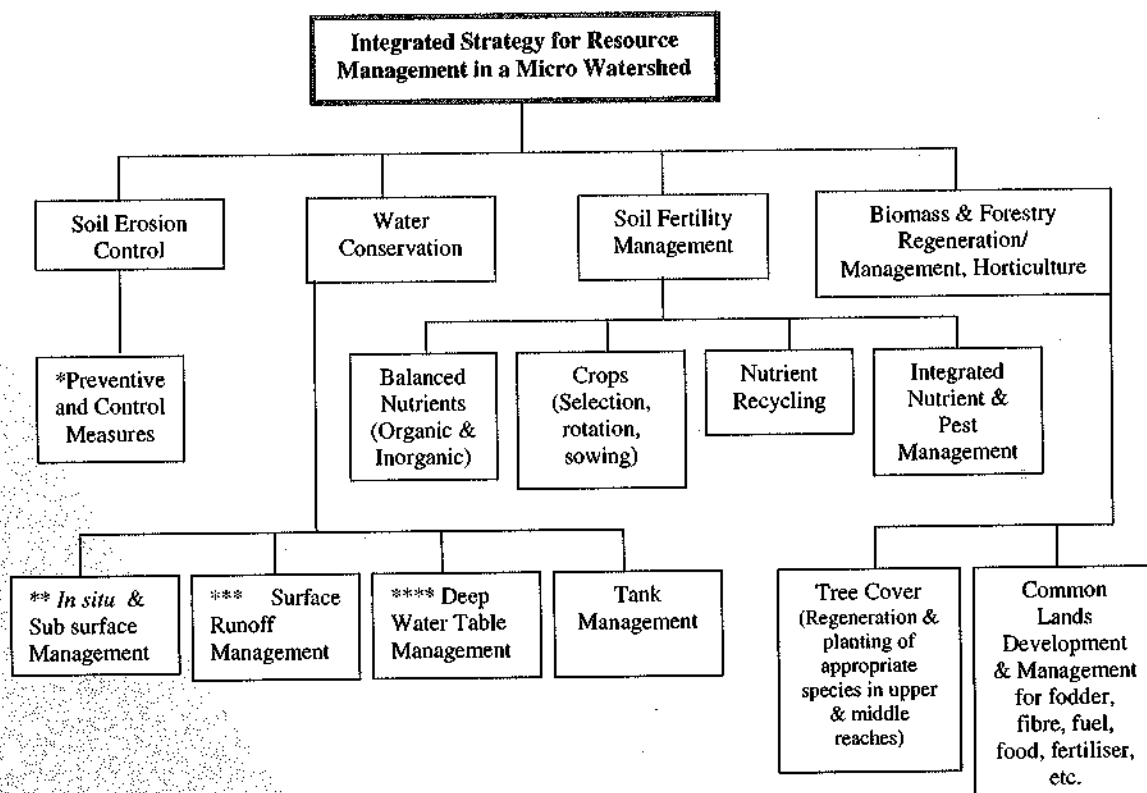
Figure 3: Elements of watershed



Content 3.2: Components of an Integrated Watershed Management Programme

Integrated watershed management programme is a package addressing all the components of a watershed according to the priorities of the people. Major components of the programme are listed below:

1. **Human Resource Development:** People living within the watershed and using its resources are an integral part of the watershed programme. They are the major resource and must be invested in. The programme must make people aware of the need to conserve natural resources and develop a sense of commitment in them. It is also necessary to build people's skills and confidence to manage and improve their resources. This can be done by supporting people to build their own institutions and systems which they think are appropriate to plan and manage their natural resources.
2. **Integrated Strategy to Arrest Degradation and Regenerate Natural Resources:** This includes treatment of arable lands (private lands under cultivation and also lands lying fallow), non-arable lands, upper reaches, hillocks and drainage lines, for effective conservation of soil and moisture. It also includes regeneration of existing resources such as trees, pasture, forest, water bodies, efficient use of water, etc. The components of an integrated strategy are given in the chart below.



* Examples of Preventive & control measures - bunding works, diversion drains, large bunds at foothills, trenches on upper reaches (contour and graded trenching), gully control measures, contour cultivation, strip cropping, primary tillage operation, organic mulching, vegetative checks, ridges and furrow cultivation, graded furrows, etc.

** Includes reduction of evaporation from sub-surface stratum.

*** Includes soil erosion prevention and control measures mentioned above.

**** Sustainable extraction from deep aquifers and efficient use of water.

All the components mentioned in the flow chart are treated in detail in 'Resource Management in Rainfed Drylands - An Information Kit' - by MYRADA and IIRR.

3. Management and Maintenance of Natural Resources: Management and maintenance of resources is as important as creating them. Unless this is done, they will always be vulnerable to further degradation.

For example:

- Efficient management of soil requires integrated and balanced nutrient management to sustain the desired level of crop productivity. Bunding is not enough.
- Proper management of water also includes activities which promote efficient use of water like avoiding excessive irrigation, adopting drip or pot irrigation, rainwater harvesting structures, shifting to crops that require less water, etc.
- Proper management of common property resources (that provide fodder, fibre, fuel, fertiliser) like forests, wastelands, nalas, tanks etc. requires that people formulate appropriate strategies to manage them. (It is not enough to de-silt tanks or protect lands/forests with project funds).

4. Diversification of Livelihood Sources: In an integrated watershed management approach it is important to promote incomes from non-agriculture related activities as this reduces the stress on land and provides opportunities for the landless and near landless, who cannot meet their basic livelihood needs from farming only. In situations, which are unfavourable for agriculture, like in drought prone areas, it is all the more critical for the rural poor to take up such activities. Some of these activities are extensions of agricultural practices such as animal husbandry and horticulture. Other activities such as trading, small-scale manufacturing, also take off with initial support particularly through the Self-Help Affinity Groups. Some people however, are initially hesitant to take up such activities as they lack the skills, knowledge, confidence or capital for the same. Hence it is important to identify the potential for such activities and to support people who are willing to take them up. This diversification will also require investment to build up the infrastructure of the community like roads, electricity, etc.

In many of the MYRADA watershed projects, the Self-help Affinity Groups (SAGs) are encouraged to take up alternate livelihood activities. Few examples of such activities are: weaving, trading, small establishments like tea shop, road side hotels, etc., leaf plate making, watch strap assembling unit (MEADOW), etc.



Process:

Step 1 : Brainstorm the participants to find out their understanding of the various elements in a watershed using the following **leading questions**:

- What do you think are the key components of a watershed?
- Are all these elements inter-related – if yes, how?
- What would happen if we addressed only some of them and not all? For example - what if we treat only the cultivated private lands in the watershed and do not treat the fallow private lands or the common lands?

Step 2 : Lecture: Elicit their opinion and brief them on the various components of the watershed and the need to integrate them in a training programme. Use *Content 3.1 and Figure 3*

Step 3 : Brainstorm the participants to find out their understanding of various components of a watershed programme using the following **leading questions**:

- What are the activities in a watershed programme?
(Probable answer: Various types of trenches on ridges, boulder/earthen bunds, check dams, gully plugs and nalas checks, farm ponds, shallow wells, regeneration of wastelands and fallow lands, etc...)
- Once treatment measures are completed in the watershed, who will ensure that the structures are maintained properly?
(Probable answer: farmers will maintain structures on individual lands; a strategy will have to be drawn to manage the resources in the common lands, and nalas;...)

- How does the programme ensure that people own the programme and the assets created thereof?
(Probable answer: by forming appropriate people's institutions, which are fully involved in every stage; by building a watershed fund;...)
- How should the programme deal with people not owning any land?
(Probable answer: organising them into SAGs, promoting non-farm income sources giving them access to fodder, etc....)

Step 4 : Guided Dialogue: Using the above questions and answers lead the participants to discuss the various components that a watershed programme should address (refer Content 3.2). Summarise by stating that watershed management is an integration of various components. If even one of the components is left out, the results of any development intervention will be incomplete. The outcome too may not be sustainable.



Sum up by telling the following story: Once a man came and started digging up trenches. A few days later, another man came up and started filling up all the trenches. An inquisitive on-looker asked the person, "A few days back a man came and dug up the trenches and today you are filling it all up. What is all this about"? The person replied, "The man who was supposed to come and plant the saplings in-between did not turn up. Anyway I am doing the duty assigned to me".

Moral: If relevant activities are not integrated, the programme holds no meaning.

Stop and Check!

Are they able to state various components of integrated watershed management programme? Are they able to state the need to address all these components?



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Why Participation?



Module Overview:

The meaning and implications of participation differ widely. Some interveners call a village meeting only once, explain the project and the plan to the villagers and implement the programme themselves; “informing” the people about the project is the meaning of “participation” for them. Others explain the plan, form a committee of a few who are supposed to represent all the families in a watershed, and carry out the programme with these few taking the lead. In most cases these few are the influential people in the village who are already empowered due to their higher economic status, awareness level, caste and education, etc. As a result, the programme empowers these elite further. This approach is normally used since it is more convenient, but it should be remembered that ‘participation’ is not complete without involving effectively and consistently people from all sections of the community from the beginning to the end of the programme. Normally, this does not happen unless a special effort is made to involve the poor and marginalized; the interveners must allocate budget and time to foster participation of these sectors; it does not

Sessions

1	Topic	: Watershed development with and without participation
	Duration	: 1 hour
	Methods used	: Storytelling, guided dialogue, brainstorming, group discussion, lecture
	Material required	: Pictures, chart paper and markers
2	Topic	: The depth and breadth of participation
	Duration	: 1 hour
	Methods used	: Brainstorming and lecture
	Materials required	: Chart paper and markers
3	Topic	: Building Institutions to ensure participation
	Duration	: 1 hour
	Methods used	: Storytelling and brainstorming
	Materials required	: Chart paper, markers, and stories
4	Topic	: Who are the Stakeholders and how can they participate in a Watershed Management Programme?
	Time	: 1 hour
	Methods used	: Brainstorming, group discussion, lecture
	Materials required	: Chart paper and markers

Total Duration: 4 hours

happen on its own. A participative approach creates ownership of the programme by all the people particularly of the poor and lays the basis for sustainability of the impact and equitable sharing in the benefits.

Module Aim and Objectives:

This module aims to introduce the concept of people's participation in watershed management programmes. It tries to explain the degree of participation required in a programme for it to be effective.

At the end of the training module the participants should be able to:

- Explain the importance of people's participation in a watershed programme
- Explain the kind of participation required for it to be effective
- Explain the means for ensuring this participation
- List out various stakeholders in their watershed and explain how each one of them can safeguard their interests in the programme

Watershed Management With and Without Participation

Session Objectives:

At the end of the training session participants will be able to:

- describe what happens usually when people participate in watershed development programmes and when they do not
- describe what is meant by participation in watershed management context

Session Duration: 1 hour

Methods Used: Storytelling, guided dialogue, brainstorming, group discussion, lecture

Materials Required: Pictures, chart paper and markers

CONTENT

Content 1.1: Watershed Management With and Without Participation



Watershed Management without Participation	Watershed Management with Participation
 Few poor families are dependent on their degraded lands for livelihood.	 Few poor families are dependent on their degraded lands for livelihood.
 Some officials visit the lands and prepare plans for Soil & Water Conservation measures. One fine morning the farmers wake up to see unknown contract labourers constructing bunds on their fields (without their knowledge).	 Some officials meet the villagers, discuss problems related to water, soil erosion, fuel, fodder, etc. They explain how a watershed management programme can help them to partly solve their problems. After several meetings with farmers they suggest to them to form a watershed development association. Jointly they plan activities to improve the lands and decide how people will involve in each activity.

Watershed Management without Participation	Watershed Management with Participation
 The farmers find the new structures a nuisance and soon break them up. No one wants to talk about whatever happened and all are angry.	 The Watershed Association takes up the responsibility of planning, budgeting and implementing various activities. Farmers find various alternate methods to finance the work including taking loans from SHGs and Banks. The officials provide the necessary assistance and motivation.
 To add insult to injury, 5 years later they are shocked to receive strange notices compelling them to contribute for the construction of bunds. Those who do not contribute are forced to pay higher land taxes - some of their crops are seized.	 The farmers see real benefit from the various activities and are happy to maintain them on their own. The livelihoods of the farmers have improved and they are able to invest much more in the development of their community. The Watershed Association has built up funds to invest in further improvement of their lands.

Content 1.2: Why Involve People in Watershed Management?

It has been noticed that active participation of all stakeholders in a watershed programme ensures the following:

- The process builds ownership of the programme activities, institutions and assets created out of the programme ... people start to call it 'their programme' rather than the 'Government's' or 'NGO's' programme.
- Once this sense of ownership is established, the programme as a whole and the outputs become more sustainable as people who actually own them have a better understanding of their importance and hence take interest in managing and maintaining them.
- When people are involved closely, they are able to judge what is really required for the area and therefore funds are not used unnecessarily. This involvement also leads to reduced costs and better quality of work.

- People are able to integrate into the programme plan, traditional practices in soil and water conservation measures which also cuts down the costs.

- Where upfront contribution in cash is difficult, people have changed the strategy and taken the whole amount required for treatment on private

lands as a loan. Contribution is one of the instruments of deepening participation and ownership. When people contribute, they plan their activities very carefully, prioritising their needs. This cuts down project costs.

- A truly participatory programme builds self-reliance and confidence in the people.

Content 1.3: When do you call a Watershed Programme 'Participatory'?

As mentioned earlier, the word 'participation' holds different meanings for different people. According to MYRADA's experience, a watershed programme can be called participatory when:

- People organise themselves into institutions like Watershed Development Associations, Self-help Affinity Groups, which function like mature institutions with a shared vision and a strategy to achieve it.
- People's institutions comprising all stakeholders, participate and progressively take the lead in planning, budgeting, implementing and managing the watershed programmes.
- People participate in all the training programmes conducted and are sensitised towards the need to conserve and upgrade their natural resources and take responsibility to achieve this objective.
- The institutions maintain the assets - both on private and on common lands, created out of the programme.

Content 1.4: Top Down vs. Bottom Up Approach in Watershed Management Programme

The table below indicates the differences in strategy in a 'Top-Down' and a 'Bottom-Up' approach in watershed management. In a 'Top-Down' approach people are involved in implementing watershed work in a framework of 'ready-made' plans and budgets, which gives very little scope for any flexibility and modifications. Standardised and rigid norms

"Why involve people in watershed management"?

This query was once put to a village woman in Gulbarga. Her answer was simple: "Because it is our land and our lives". Interveners have their own answers: "Because participation of people reduces costs" is a common response from Government. "Because participation improves quality of work and lays the basis for sustainability" say others. "Because in a democracy, participation is the right of people" is another reply. MYRADA believes that all these responses have value and adds, "Because participation is the basis for building sustainable people's institutions appropriate to the resource to be managed". It is these institutions which form the basis for transparency in functions, sustainability of impact and for social change.



do not provide space for farmer friendly technologies. The outputs generally are numerical – e.g. ‘X’ number of gully plugs constructed, ‘Y’ amount spent, etc.

In a participatory ‘Bottom-Up’ approach, people are encouraged and empowered to take the lead. They are seen as “taking the lead” in development and not as mere “implementers” of a scheme. Plans emerge from the people, and the technology adopted is people friendly and a combination of old and new. The outputs are also qualitative like - awareness about the importance to manage common lands of ‘X’ number of people has increased; competence in finance management of ‘Z’ number of people has increased, etc.

Item	Top Down	Bottom Up
Point of Departure (Where the programme differs)	Pre-prepared plan and budget	People prepare their own plans and budgets
Goals	Predetermined, short term, limited to project duration, set by the project	Set by people, adaptive, long term, shared by all members of the watershed institutions.
Key words used	Planning/ budgeting	Participation at every stage; ownership; contribution/loans; maintenance and institutions building.
Focus of decision making	Centralised; outsiders take the lead	Decentralised; watershed institution members take the lead
Methods/Rules	Standardised/universal, rigid	Diverse (depending on local situation), locally framed, flexible; (self imposed)
Technology	Fixed package of practices – usually non-traditional	Varied Basket – with priority to traditional practices
Relationship with local people	Controlling, monitoring, evaluating	Enabling, supporting, empowering, understanding
Local people seen as	Clients, beneficiaries, recipients	Actors, leaders, partners
Outputs	Physical infrastructures usually not maintained after the project period	Group vision built up, institutions developed, management capacity & skills of local people developed, physical infrastructures usually maintained by people after the project period.
Follow-up	None	Regular and led by people's institutions; regular meetings

Adapted from: Building Farmers' Organisations for Integrated Watershed Management in India – A Trainers Manual by PRLA, FAO, PWMTA – Kathmandu, Nepal

Process:

Step 1 : Narrate the story of watershed development without and with participation – using pictures given in *Content 1.1*.

Step 2 : Brainstorm the participants to elicit their opinion regarding the importance of people's participation in development programmes.

Leading questions:

- What do you think about this story? What happens if a watershed management programme is implemented in your village without your involvement?

(Probable answers are: "We will not know what is happening." "How will the outsiders know what we need?" "They will get their own plans which might not suit our requirements." "Last year some people were suggesting we put boulder bunds. But in our watershed you can hardly find any boulders". ...)

- What will happen if you are deeply involved in the development of your watershed?

(Probable answers are: "We can modify the programme to suit our needs. We can plan according to our needs and according to the resources available with us." "It becomes our own programme; hence it becomes our responsibility to see that the programme succeeds". ...)

Step 3 : Sum up by explaining the need to involve people in the watershed programme (*Content 1.2*).

Step 4 : Brainstorm the participants to find out what participation means for them in watershed context.

Leading question can be:

- When will you say that the watershed programme has been participatory?
(Probable answers: "When people pay contributions." "When all members attend meetings regularly." "When people decide what activities to take up" ...).

Step 5 : Elicit answers. Supplement their answers with points in *Content 1.3*.

Step 6 : Lecture: Explain Top Down v/s Bottom Up approach with respect to people's involvement in a watershed programme (*refer Content 1.4*)

Step 7 : Sum up by emphasising the need for people's participation in watershed management programmes.

Stop and Check!

Are the participants able to state why participation of people is essential in watershed management programmes?



The Breadth and Depth of Participation

Session Objective:

At the end of this session participants will be able to state what participation means in real terms.

Session Duration: 1 hour

Methods Used: Brainstorming, lecture

Materials Required: Chart paper and markers

CONTENT



Content 2.1: Breadth and Depth of Participation

1996 onwards, there was a shift in the approach of implementing watershed programmes sponsored by Government of India. From concentrating on bio-physical treatments alone, the government watershed programmes started acknowledging the need to involve people in the programme. Unfortunately, only a few people were identified to represent the entire community and implement the programme on their behalf. The implementation too, remained participatory only in paper – all decisions were still taken by the government. This again followed the pattern of a top-down approach which empowered only a handful of people. Hence, over time, these programmes too ran into problems. “Whose development is it?” became a question difficult to answer as it was realised that many marginalised groups were in many ways worse off than before. Learning from these failures led to the development of a **participatory approach**, which involves all people at every stage in the development of watershed. This approach is being adopted in the very recent watershed projects of Karnataka like the KAWAD (Karnataka Watershed Development Society) and the SUJALA (the Karnataka Watershed Development Project).

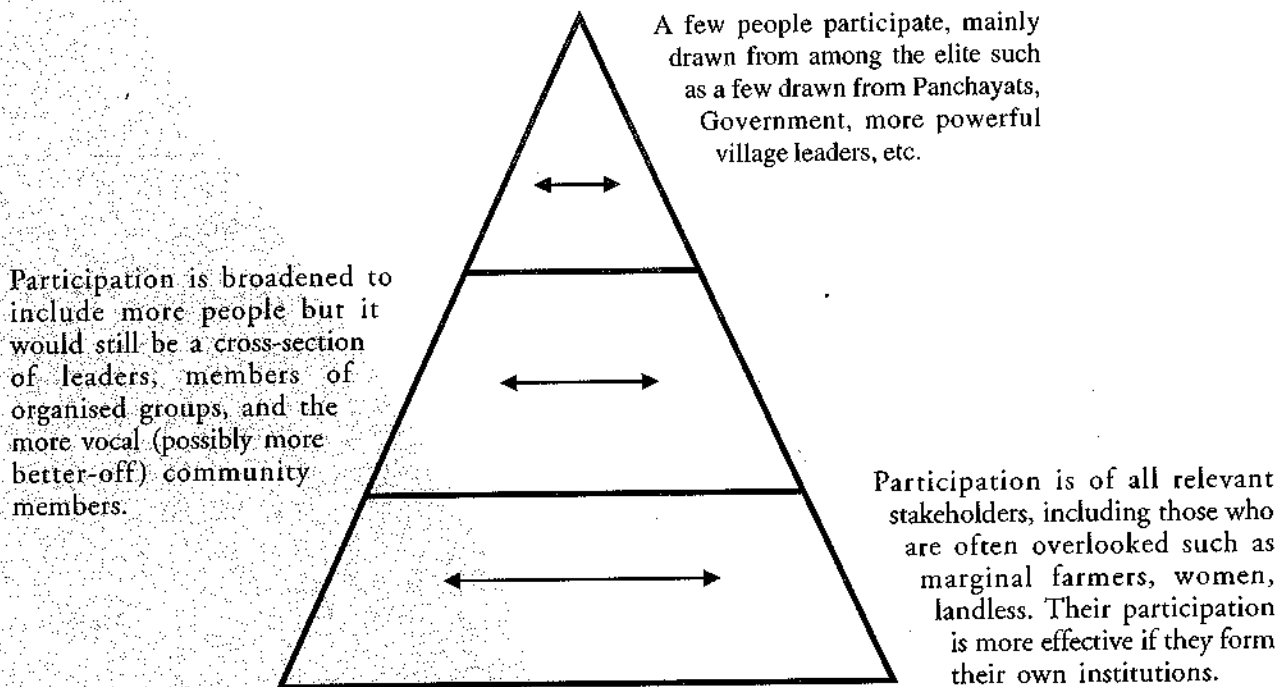
This approach divided “participation” in two dimensions:

- 1) ‘The breadth of participation’ which relates to the **number** of people involved and the various sections of the community involved in the process, and
- 2) ‘The depth of participation’ which relates to the extent to which all these people are involved

What is meant by Breadth of Participation:

It refers to number of people involved in a programme and also the cross-section of community and stakeholders involved (e.g. various castes and occupation groups, women, age groups, landless, etc.) For example: Are we involving only a few influential people in the village, discussing plans with them, implementing with them? Or, are we involving majority of the stakeholders in the planning, budgeting and implementing the programme? How do we identify these groups? How do we involve them?

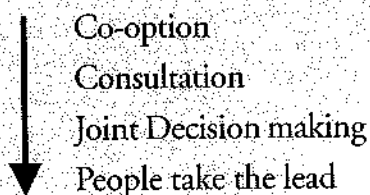
Figure 1: Breadth of Participation



What is meant by Depth of Participation:

It describes the degree to which people are involved in various stages of a programme. It means that participation is not restricted to the level of sharing of information with the people but goes deeper to consulting people and planning the interventions/activities with them and giving them space to play an increasing role in budgeting and monitoring.

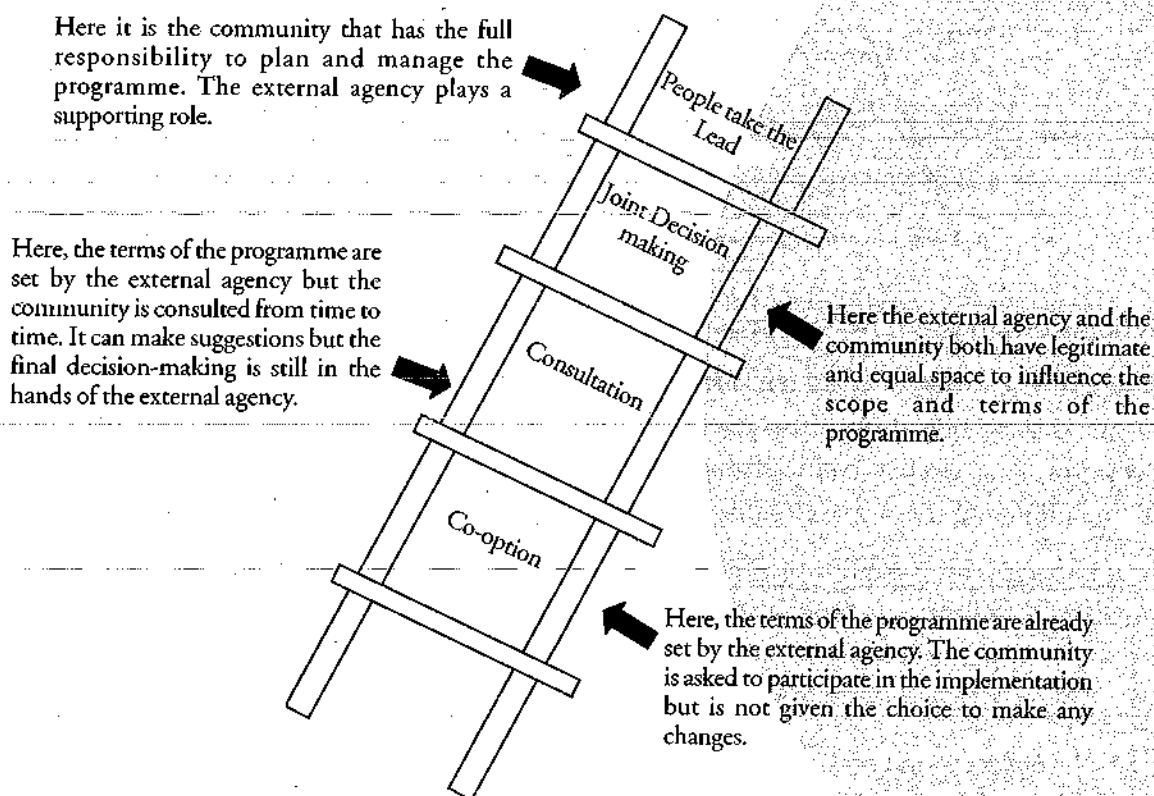
In a participatory programme there are usually 4 broad levels at which people can be involved – each succeeding level achieves a higher degree of participation.



(refer Figure 2)

1. **Co-option:** In this case, the decision is taken by the intervener. The intervener decides the nature of programme to be implemented, its components, budget, schedule of implementation, etc. When the project is to be grounded, people are informed about it.
2. **Consultation:** In this case, people's opinions are taken during the process of planning but the final decision is taken by the interveners. Once the plan is approved, no flexibility is allowed for change during the process of implementation.
3. **Joint decision making:** In this case, decisions regarding the type of treatment measures, their location, their schedule of implementation, budget, etc. are taken jointly, by the people and by the intervening agency. The implementation too, becomes a joint responsibility.
4. **People take the lead:** In this case, people take up the entire responsibility of planning and implementing the programme. Outsiders may provide certain technical and financial support. Even though this is a time consuming process, and involves lot of capacity building, this kind of participation must be encouraged as this has the greatest potential to lead to ownership of the programme by the people, and hence to lay the basis for its sustainability.

Figure 2: Depth of participation



Process:

Step 1 : Brainstorming to understand participant's perception about 'participation' in a programme.

Leading questions:

- When do you say that a programme is truly participatory? How will you define a participatory programme?
- To what extent do you think people should be involved in a participatory programme?

Step 2 : Elicit answers for the above.

Step 3 : Lecture: Use *Content 2.1 and Figures 1 and 2* to describe what is meant by breadth and depth of participation.

Step 4 : Clarify doubts if any.

Stop and Check!

Are the participants able to say what is meant by participation in the real sense? Are they able to explain how a truly participatory programme should develop?



Session: 3

Building Institutions to Ensure Participation

Session Objective:

At the end of the training session participants should be able to state the need to build appropriate people's institutions to ensure participation of all stakeholders.

Session Duration: 1 hour

Methods Used: Storytelling and brainstorming

Materials Required: Chart paper, markers and stories

CONTENT

Content 3.1: From Participation to Institution Building

Participation of all sectors is important but not enough. If participation is to become a basis to achieve the objectives of increased ownership of the investment, higher quality in implementation and reduction in costs, if it is to improve the potential for maintenance after the project is over, and if it is to support sustainability of the impact and further improvement, participation must lead to people forming institutions which are



appropriate to manage each resource and to foster their objectives. Further, participation of all the members of these institutions in decision-making and their control over systems and practices must become the dominant culture of these institutions. This experience will help people to acquire the skills of management, to accept responsibilities as well as to demand for rights. If participation does not develop into institutions, then it is not very effective. In such cases, participation often becomes 'ad hoc', or a show of strength for a short period and then it disappears leaving people dissatisfied.



MYRADA has many examples of participation which have developed into "people's institutions". The SAGs are one example. They have developed their own rules and conventions, their own vision and acquired the skills and confidence to manage their resources and to develop linkages with other institutions which they need for their support. We also have seen examples where participation did not develop into institutions. We have had many instances of people organising demonstrations and *dharnas* to close liquor shops. But these shops opened again after a few weeks, since there was no sustained action supported by an institution.

Process:

Step 1 : Narrate stories which communicate the need to stay together in a group to achieve objectives which are otherwise difficult to attain. Few stories are given in the box below.

Stories you can tell:

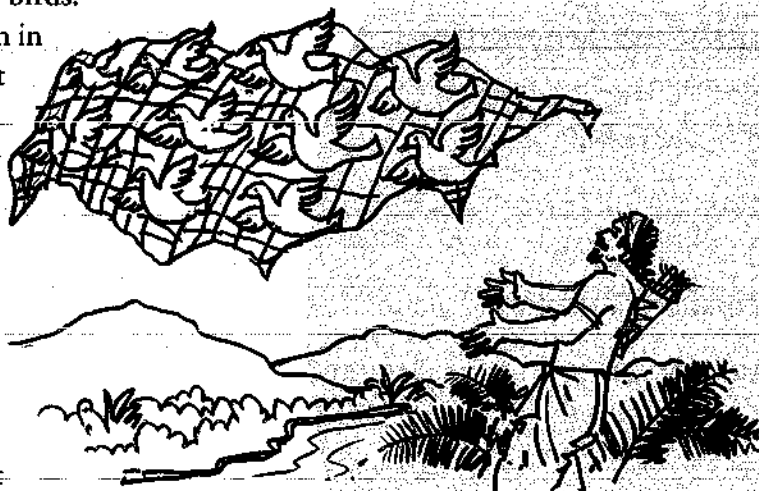
Hunter and the flock of birds:

Once a hunter spread grain in a small clearing in the forest to trap a flock of birds.

When the birds came to feed on the grain, he threw a net and caught all of them in his net.

Satisfied with his catch he decided to carry the birds home after having his lunch. In the meanwhile, knowing that they would not get another

chance, the birds decided to escape. A wise bird suggested a plan - on getting a signal from him, they would all flap their wings in unison so that they could fly off together carrying the net along with them. They did this and the wise bird led the flock to a friend, a rat, who lived in another part of the forest. The rat cut their net and set them all free.



Message: "Collective action" brings successful results.

An old man and his three sons: Once, there lived a very old farmer who had three sons who kept quarrelling. He was worried that after his death they would fight and go their own separate ways and somebody else would take over his fields. He thought about how to get his sons to stay together. One morning he asked each of his sons to collect a bundle of wood from the forest. They did as they were told. The old man asked each one of them to untie their bundle and take out one stick of wood and break it into two. They did this very easily. He asked them to take two more sticks and do the same. This too they did very easily. The old man, then asked the sons to tie up the bundle once again and attempt breaking the bundle. None of them could do this. The old man then fondly made his sons sit beside him and explained that if they kept quarrelling and always remain divided, then some day an outsider would take benefit of the situation and take away everything that belonged to them. If they stayed united, like the tied bundle of wood, nobody would ever be able to divide them and take undue advantage of them.



Message: United we stand – divided we fall.

- Step 2 :** **Brainstorm** the participants to find out what they think about the stories. Draw a parallel between the stories and the people in the watershed, who need to stay together to achieve a common vision/goal.
- Step 3 :** Elicit their views on various ways of ensuring people's participation in a watershed programme. **Brainstorm** using the following **leading questions**:
- What do you think is the best way of involving the maximum number of stakeholders in a watershed programme?
 - How do you ensure that the interests of all the people dependent on the watershed resources are safeguarded in a watershed programme?
- Step 4 :** **Lecture:** Using *Content 3.1* brief them on the importance of forming institutions to ensure participation. Explain how institutions can be a means to ensure transparency in all activities and sustainability of their efforts.
- Step 5 :** **Sum up** by informing the participants that the next session will deal with stakeholders in a watershed and the various institutions that can be formed to ensure that everyone's interests in a watershed programme can be promoted.



Stop and Check!

Are the participants able to explain why people must work together in an organised way in a watershed development programme and why they must form institutions?

SESSION FOUR

Session: 4

Who are the Stakeholders and How can they Participate in a Watershed Management Programme

Session Objectives:

At the end of the session the participants will be able to:

- list out the categories of people who have a stake in the watershed development programme
- explain how various stakeholders can actively participate in a watershed programme

Session Duration: 1 hour

Methods Used: Brainstorming, group discussion, lecture

Materials Required: Chart paper and markers



CONTENT

Content 4.1: Who are the Stakeholders?

Experience shows that the following categories of people usually have a stake in the watershed:

1. Landowners - marginal, small and big farmers and their families who own land in the watershed. Some live within the watershed, some live outside.
2. Landless people - who do not own land but are highly dependent on the resources of the watershed for their livelihood. Example: as agricultural labourers, and fuel, fodder, fibre gatherers.
3. Tribals and others who often have small land holdings in the upper reaches which are mostly degraded

4. Livestock owners – who depend on fodder for their cattle from the common grazing land or the forest areas in the watershed

5. People dependent on minor forest produce. Example: leaf-plate makers, basket weavers, fruit gatherers, honey collectors, etc.



6. Brick makers, potters who depend on soil from tank beds.
7. Other watershed resource users – like women who are the major users of water and fuel for domestic purpose.

In some places, institutional landowners like temple trusts also have a say in the watershed resources. Apart from the above, departments like the Forest, Revenue, Minor Irrigation etc., being owners of some of the watershed resources also have a stake in matters related to these resources, since they have regulatory or maintenance functions.

Content 4.2: How can the Stakeholders Participate in a Watershed Programme?

Refer Module 4.1- "Institutions in a watershed programme - with a focus on WDAs"

Since all the above mentioned categories have a stake in the watershed, they need to be involved in the watershed development programme from the beginning. If special efforts to involve all the categories of people are not made, then the programme gets limited to only those who own lands or are directly related to land. In MYRADA's experience the best way to ensure the representation of interests of various stakeholders in the watershed is through building appropriate institutions of people dependent on watershed resources. Institutions become a base and a channel for asserting their rights in a watershed programme.

As far as management of a micro-watershed is concerned, in MYRADA's experience, there are two Community Based Organisations (CBOs) which form the pillars of watershed management programme: 1) The Self-help Affinity Groups (SAGs); and 2) The Watershed Development Associations (WDAs¹).

- **Self-help Affinity Groups (SAGs)** – The landless and near landless poor (who are found in categories 2–7 mentioned above) are encouraged to form SAGs. Thus there might be more than one SAG in one village (or watershed) formed on the basis of affinity among the members. The ideal size of a SAG is between 12 to 20 members. The SAGs focus on the interests of the poor people in the watershed, who do not get

¹ In watershed programmes like SUJALA (the Karnataka Watershed Development Programme) and KAWAD (Karnataka Watershed Development Society), these WDAs are called Area Groups

significant and direct benefits out of the investment in agricultural land in a watershed programme; even if they get some benefits they tend to be marginalised because of their social and economic vulnerability. SAGs give the poor and marginalized a space to grow and to lobby for benefits and rights. For example: A group of landless in an SAG can lobby more effectively for their interests. They can keep out contractors and enter into agreement with the WDA to take up the labour component of activities so that they will benefit in terms of wages. They can also influence the wage rate given to the labourers.

For further reading on Self-help Affinity Groups refer:

- "Alternate Management Systems for Savings and Credit – The MYRADA Experience", by Aloysius P. Fernandez.
- "Putting Institutions First – Even in Micro Credit - The MYRADA Experience", by Aloysius P. Fernandez
- "A Manual for Capacity Building of Self-help Affinity Groups - The MYRADA Experience".

- **WDAs/Area Groups** – All farmers owning land in a particular micro-catchment are eligible to become members of this institution. MYRADA's experience shows that the WDAs which function well are not very large – most of them have less than 40 members. This is how WDAs covering micro-catchments of size 100-200 ha. emerged.

Issues regarding membership of these institutions have been discussed in detail in Module 4.1 - "Institutions in a watershed programme"

Process:

Step 1 : **Brainstorm** the participants to understand their perception about the various stakeholders and institutions in a watershed programme.

Leading questions:

- Who are the people who are dependent on the resources of your watershed?
- Who are the people in your village who will be affected by the watershed management programme (either positively or negatively)?

(Probable answers are: "All landowners, anyone who live besides the nala, agricultural labourers, all of us, landless if common lands are protected"....)

Step 2 : **Lecture:** Using *Content 4.1* discuss the stakeholders in their watershed. Further using *Content 4.2* explain how all groups of stakeholders can promote their interests in a watershed programme.



Stop and Check:

Are the participants able to identify the various stakeholders in their watershed? Why they must participate in the watershed programme and how?

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Watershed Treatment and Management - an Exposure



Module Overview:

The previous modules attempt to acquaint participants with the various resources in a watershed, which need to be managed in an integrated manner and the critical role that people and their institutions play in watershed management. This module focuses on traditional and introduced practices for reducing soil erosion, for harvesting and conserving water, for increasing the vegetative cover and biomass. These "practices" are drawn from experiences in the field over the past 12-15 years.

In this module, the classroom session explaining various treatment measures is followed by an exposure to a treated watershed to help reinforce the learnings of the classroom - both with regards to the role played by people's institutions (from previous module) and the physical measures adopted to treat the watershed (present module). The exposure will provide the participants with an opportunity to interact with the members of the Watershed Development Associations (WDA) and Self help Affinity Groups (SAGs) and to identify and assess the physical measures they have adopted to manage and conserve soil, water and vegetation.

Sessions

- | | | |
|----------|----------------------------|---|
| 1 | Topic | : Introduction to watershed treatment |
| | Duration | : 1 hour |
| | Methods used | : Slide or video show, group discussion |
| | Materials required: | Video or slides related to treatment measures adopted to conserve soil and water and to promote biomass in a watershed, TV/ VCR or slide projector. |
| 2 | Topic | : Briefing for the field visit |
| | Duration | : 1 hour |
| | Methods used | : Brainstorming, lecture and discussions |
| | Materials required: | Chart paper and markers |
| 3 | Topic | : Visit to a treated watershed |
| | Duration | : Depends on the proximity of the watershed being visited and the size of the watershed; may vary from ½ a day to 1 day |
| | Methods used | : Field visit: Observation, recording and discussion on field; interaction with the farmers and the WDA and SAG members. |
| | Materials required: | A checklist of items to be observed. |
| 4 | Topic | : Feedback and sharing |
| | Duration | : 1 hour |
| | Methods used | : Brainstorming |
| | Materials required: | Chart papers and markers |

Total Duration: 3 hours in the classroom + time for exposure visit

Module Aim and Objectives:

By the end of this module the participants will be able to:

- Describe various treatment measures both traditionally used in the village as well as other relevant and appropriate measures (that they have observed in the field or were exposed to during this module) for soil and water conservation and biomass regeneration on private and common lands.
- Describe the importance of people's institutions in laying the basis for the ownership and maintenance of all interventions in the watershed and the roles they can play to improve the quality, reduce costs and ensure maintenance.

Introduction to Watershed Treatment

Session Objective:

At the end of this session the participants will get an idea of the various treatment measures adopted for conserving and regenerating natural resources, mainly soil, water and biomass on private lands, common lands and along the drainage lines in a watershed.

The facilitator/intervening organisation must have an understanding of various traditional means of conserving soil and water and promoting biomass.

Session Duration: 1 hour

Methods Used: Slide or video show, group discussion

Materials Required: Video or slides related to treatment measures adopted to conserve soil and water and to promote biomass in a watershed, TV/VCR or slide projector, charts enclosed at the back of this manual.

CONTENT

Content 1.1: Treatment Measures for Soil and Water Conservation and Biomass Promotion



Refer to the brief notes on each of the structures for conserving soil, reducing soil erosion, harvesting and conserving water, promoting biomass, etc. given at the end of this module as 'Readings for the Facilitator'. Charts enclosed with this Manual should be used to explain various treatment measures.

Facilitator's Note:

1. This session requires the facilitator to have field experience of working in a watershed where he/she is exposed to various treatment measures. MYRADA trainers have found it useful to conduct this session by taking the participants to a watershed model constructed on the training campuses.
2. For this session, it would be better if there are older people among the participants who could draw a picture of how things were 5 – 10 years ago and how resources were managed traditionally.
3. The set of questions listed in the 'Process' is just an indicative list. The trainer must use his/her skills, experience and knowledge to elicit answers and to enrich the discussions. These questions can also be used strategically throughout the field visit and subsequent discussions.



Process:

Step 1 : Show the participants a video on various treatment measures undertaken in a watershed programme and the involvement of Watershed Associations. Also show them slides of a treated watershed. Preferably the slides should compare the situation before implementing the programme and its impact after the treatment.

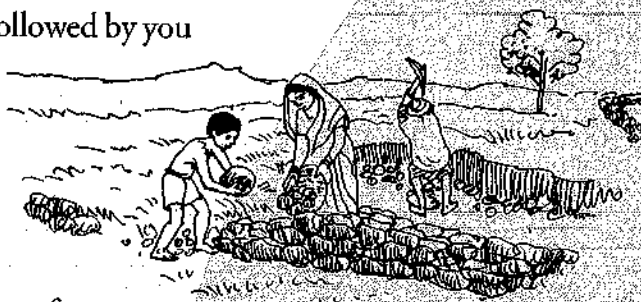
Step 2 : While explaining structures used for watershed development through a video or slide show, probe the participants about the various treatment measures, both traditional and new, which they are familiar with.

List of videos on watershed treatment and management:

- Golden Harvest (in English) translated in Kannada as Swayam Krishi (by MYRADA).
- People's Institutions in Watersheds (by MYRADA)
- Streaming Wisdom
- Ridge to Valley (by NABARD)
- A matter of energy and water (by BAIF)
- Rain Drops (by BAIF)
- Rural Rejuvenation (by BAIF)

Leading Questions to facilitate discussion related to Treatment Measures on Private Lands:

- What are the traditional methods followed by you to check erosion of soil on your lands?
- What are the traditional measures for safe disposal of excess water from your individual lands?
- Are there examples of collecting surface water from the fields into a pond located within the field?
- Do you promote biomass on private lands? What are the most common species grown?



Leading Questions to facilitate discussion on Common Lands:

- What benefits are you taking from the panchayat/revenue lands, the temple lands etc.?
- What was the extent of grazing land 5 years ago. Compared to that situation how is it today? Is the quality of fodder same as it was 5 years ago?
- What is the present condition of the common lands?
- What have you done to restore the resources of the common land?



- How do you manage the common resources belonging to your village?
- Has erosion increased during the past 10 years on common lands? Has this affected the private lands? If yes, give examples.
- If there is a forest patch in the watershed, has it decreased or increased in size? Who collects the forest products? What are they? Are they used for personal consumption or are they sold?

Leading Questions to facilitate discussion on Treatment Measures in Major Drainage Lines (Nalas):

- What measures do the farmers with lands adjoining the major nalas adopt to prevent flooding of their lands or to prevent collapse of nala sides?
- How do farmers along the nala use it for improving agriculture? Do they remove silt? Do they put in gully checks or other barriers to collect silt and store water?
- How do you use the nala for storing water and also take care of safe disposal?



Leading Questions while showing slides on Farming Practices:

- What are the major crops? For how many years have you been growing this?
- What is the intercrop you generally take?
- What type of seed do you use? Do you buy it every year or do you store it? If stored, how do you store it?
- What are the different cultivation practices followed by farmers in your area?



Stop and Check!

Are the participants able to list out measures for conservation of natural resources, especially soil and water, on private and common lands and in the nala?



Briefing for Field Visits

Session Objective:

At the end of this session the participants will be able to list out things to be observed during the field exposure to a "treated" watershed.

Session Duration: 1 hour

Methods Used: Brainstorming, lecture and discussions

Materials Required: Chart paper and markers

CONTENT



Facilitators Note: Collect some baseline information (project reports, surveys, etc.) about the watershed to be visited.



Before taking the participants on an exposure visit to a treated watershed ask them to break-up into small groups of 5-7 and to elect a group leader; brief them on the following:

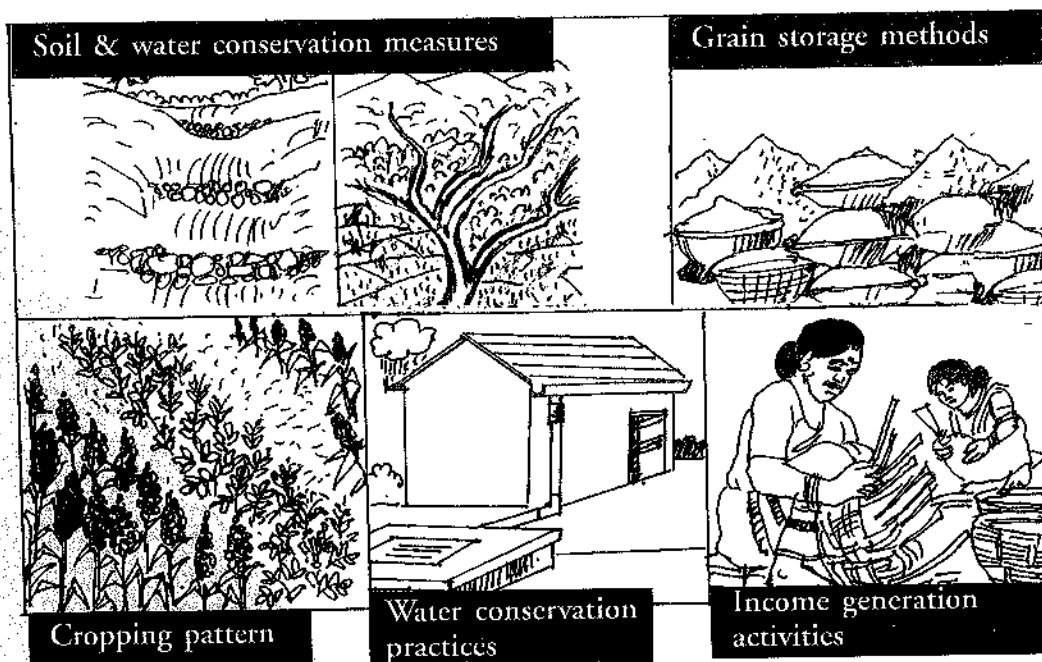
Content 2.1: An Overview of the Treated Watershed to be Visited

Before going for an exposure, brief the participants on the following:

- A description of the watershed. This could be done with a map showing the ridge and the major drainage lines, and habitation, if any, within the watershed.
- Information about the people - the number of families who have lands or use the watershed's resources - where they stay (in the village or outside), their main livelihood source, land holding size, number of landless, etc.
- The number of livestock and poultry.
- The types of treatment activities carried out in the watershed.
- The status of various natural resources such as soil, water, vegetation, etc. - before and after the treatment.
- The nature of people's institutions - SAGs, WDAs, milk co-operatives, etc. and the various committees and their role in watershed treatment, management and maintenance.
- The relationship of the Watershed Association with the Gram Sabha or Panchayat and SAGs.

- How equity and gender concerns have been integrated in the watershed development programme.
- How resources for treatment have been raised – from Government, NGO, people, etc.

Content 2.2: What to Observe in the Field during the Exposure Visit



Facilitator's Note: Observation on the field is done through a transect walk from ridge to valley. The group leader should take the responsibility of recording the observations of his/her group in a note pad. It will help if the following check list is given in writing (in the local language) to the leader and shared with the group before they go for the visit.



The check list of observations can cover the following:

- Starting from upper reaches - what kind of treatment measures have been undertaken in the upper, middle and lower reaches? What is the purpose of each treatment measure? Have the structures in various places been maintained? If yes, by whom? If not, why?
- What are the various ways in which water has been harvested, conserved or diverted?
- Promote interaction with farmers/ people who accompany the visitors in order to find out:
 - whether each measure has had an impact; if not, why? If yes, what has been the impact? Who has benefited?
 - have systems been evolved for maintaining the structures, especially on common lands and in nalas?
 - have the farmers in the upper reaches benefited? How?
 - have the landless, the small and marginal farmers, the tribals, the women benefited? How?

Content 2.3: Interaction with the Community Organisations

Encourage the visitors to interact with the community and with institutions in the watershed/village. Topics for discussion could be:

- What are the various institutions involved with management of natural resources in the watershed?
- To what extent were these institutions involved in planning and implementation?
- Which people's institutions are most involved in managing regeneration on common lands, in maintenance of structures on common lands and nalas? What problems do they encounter? Have systems been evolved for maintenance of these structures?
- What role did the Panchayat and Gram Sabha play during planning, implementation and thereafter?
- What systems (financial and organisational) did they develop during planning, implementation and maintenance?
- How has the programme addressed the livelihood issues of landless, marginal and small farmers, tribals and women?
- What were the major problems they faced during planning, implementation and maintenance? How did they solve them?
- Did they contribute to each treatment measure? How much? Was it in cash or in kind? From where did they raise their contribution?
- What are the linkages with others that their institutions have established? How have they been helpful?

Process:

Step 1 : Brainstorming: Start by probing the participants about any previous exposures they may have had to a treated watershed.

Leading questions could be:

- Have you ever visited a treated watershed before?
- What kind of treatment measures have you observed there?
- What are you expecting to observe during this exposure visit?

Step 2 : Elicit answers for the above. Give the participants an overview of the area being visited based on the points listed in the *Content 2.1*.

Step 3 : **Lecture:** Discuss the checklist of things to observe on the field based on the points given in the *Content 2.2*.

Step 4 : Brief the participants about the topics that could be discussed during their interaction with the community/ institution members. (*Content 2.3*).

Step 5 : Ask the participants to note the checklist in their note-pads.

Step 6 : Clarify doubts if any.

Facilitator's Note: The participants can be divided into smaller groups of 5 to 7 people; ensure that women and men are represented in all groups. Each group elects a leader who takes the responsibility to record observations and answers during the visit. Literate persons in the group can also be encouraged to write down observations during the field visit.



If there is not enough time, then some groups could do a transect through the watershed and focus only on the leading questions listed under *Content 2.2* (What to observe in the field) while other groups interact with the watershed institutions and focus on the leading questions under *Content 2.3*. However, in this case, care must be taken to divide the host families in the watershed who are participating so that some accompany the group doing the transect and others are available to discuss matters related to watershed institutions.

Stop and Check!

Are the group leaders and participants able to state the purpose of their visit to the treated watershed? Can they list out the things they are required to observe on the field?



Session: 3

Visit to a Treated Watershed

Session Objective:

At the end of the field visit:

- the participants will have greater clarity on various structures or measures for conservation of soil and water and other components of watershed programme
- they will get an insight on the issues related to management of natural resources in a micro-watershed.
- they will have grasped the importance of people's institutions in planning, implementing and maintaining watershed structures.

Session Duration: Depends on the proximity of the watershed being visited and its size - may vary from ½ a day to 1 day.

Methods Used: Field visit; Observation, recording and discussion on field; interaction with the farmers and the WDA and SAG members.

Materials Required: Note pads and a check list of things to observe (as mentioned in previous session).



Facilitator's Note 1:

The micro watershed selected for the exposure should have most of the following features:

- The watershed activities must have been implemented by involving the people – through building appropriate people's institutions
- These institutions are playing a role in managing the watershed's resources
- Integrated approach should have been adopted in the development of watershed
- The investment in treatment measures improved the productivity of the land and reduced vulnerability of the crops to long dry spells
- Soil erosion has been controlled
- There is an increase in the water table and in ground water recharge
- The vulnerable groups have benefited



Facilitator's Note 2:

Preparations required in the watershed to be visited -

Before taking the participants for an exposure, the facilitator should have:

- Informed the people of the host watershed about the intended visit, the participants' background and their interests and requested their cooperation.
- Requested some of the farmers of the host watershed to accompany the group. These volunteers should be able to explain their involvement in the programme, the various activities undertaken under the programme, and how the WDA functions.
- Requested the WDA members in the watershed to gather in the village towards the end of the field exposure to clarify any doubts of the visitors.
- Arranged travel, food (for all including participants from the village) and other related logistics. It should be remembered that budget for this exposure should have been provided in the training budget.

Facilitator's Note 3:

- Encourage interaction and discussion between the participants and the hosts during the field visit. Only when needed, introduce some leading questions selected from those listed in the previous session related to treatment measures on private, common lands and nalas. (*Content 2.2 and 2.3*)
- Once on the field the participants must understand the purpose of each treatment measure and how it was implemented. Allow sufficient time to be spent on each site for the participants to grasp its importance.

Since the discussions taking place during a field visit will be specific to the watershed being visited, it is not possible to write it in the form of 'Content'. However, some major common components/treatment measures of a watershed have been discussed at the end of this module under 'Readings for the facilitator' based on MYRADA's experience.

Process:

NOTE: While making a tour (a transect) of the watershed make sure to start from the ridge line and proceed towards the lower reaches and end in the valley (outlet).



Step 1 : Expose the participants to:

- Various soil and water conservation measures (traditional/introduced) adopted in the upper, middle and lower reaches of the watershed.
- The importance of adopting measures to improve water percolation and regeneration of biomass particularly in upper reaches and high slopes
- The drainage line treatment techniques.
- Other components taken up under integrated watershed management like agriculture practices, promoting integrated crop management, different water management techniques, dry land horticulture, etc.
- The problems or issues which might have remained unresolved along with the reasons for the same.

Step 2 : Introduce the participants to the members of institutions like WDA and SAGs involved in watershed development. Allow them to interact with the members to understand issues related to:

- People's participation, contribution and future maintenance of the various treatment measures.
- Planning, implementation and management of the watershed activities
- Financial management in the WDAs
- Rules and conventions adopted by the WDA to ensure proper functioning.
- Roles that other institutions in the village played in watershed development
- Roles that the entire village (*Gram Sabha*) played in watershed development
- Conflicts that may have arisen; and how they were resolved or not resolved.

Step 3 : Clarify doubts if any.

Stop and check!

Are the participants clear about the various measures for conserving soil and water in various reaches of a watershed? Have they understood how other components can be integrated in watershed programme? Have they understood the role of people's institution in developing and managing a watershed?



Feedback and Sharing

This is the last session of the Introductory Section of the training. After this session the participants are expected to go back to their respective villages and share the learning with others in the village and in their WDA. Hence this session can be used to share participants' experience of the field visit as well as to get a feedback on the entire training upto now.

Session Objective:

At the end of this session the participants should be encouraged to list out their learnings from the exposure visit.

The trainer will receive feedback on the design, content and the process of the entire training, which will help her/him to improve.

Session Duration: 1 hour

Methods Used: Brainstorming

Materials Required: Chart paper and markers

Process:

Step 1 : Brainstorming: Encourage the participants to share their field experiences and observations. Following **Leading Questions** can be used:

- What did you learn about soil and water conservation measures during your field visit?
- What did you learn about other components of an Integrated Watershed Development Programme?
- What did you learn from your interaction with the WDA and SAGs?
- What lessons do you want to carry back home from your field experience?
- What do you think you will be able to replicate in your watershed?

Step 2 : Brainstorming: Ask the participants for their feedback about the Training programme:

- What do you feel about the way the training was conducted?
- What do you feel about the content that was covered?
- Do you think anything needs to be added or refined?
- Were the logistics satisfactory or does anything need to be changed?

Step 3 : Elicit answers for the above and clarify doubts if any.

A written feedback can be taken in case of literate participants.

Summing Up:

The facilitator encourages them to share the knowledge they have gained over the past few days with those who have not been able to attend the training, and to discuss strategies for their watershed. The facilitator informs them that this training will be followed by a micro-planning exercise in their watershed, where they will be required to plan out the development and management of the watershed based on what was learnt during this training and on their own experience.

READINGS FOR THE FACILITATOR

Information contained here is essential for a trainer in order to conduct the sessions in this module. The trainer can supplement this information from his/her field experience.

Reading 1: Characteristics of Upper, Middle and Lower Reaches

Upper, Middle and Lower Reaches are the terms used to define the location of lands in a particular watershed.

Upper reaches are the lands in the upper part of the catchment near the ridge of a particular watershed. These are often characterised by high run off and soil erosion, degraded vegetation and grazing areas, forest and revenue lands that have been encroached and/or degraded.

Middle reaches are the lands lower down. These are characterised by fields with high soil erosion and run off, gullies and rills, shallow soils with medium percolation and infiltration. Most of the area is cultivated, but productivity is low and the crops are highly vulnerable to dry gaps in the monsoons.

Lower reaches are lands lying in the valley of a watershed near the exit or drainage point. The soil is good and often over a foot deep; the area is characterised by good infiltration and recharge.

The following are the physical characteristics of the three reaches in a watershed lying in the dry zone of the Deccan Plateau.

Characteristics of Upper Reaches	Characteristics of Middle Reaches	Characteristics of Lower Reaches
Higher slope (> 20%)	Medium slope (5 – 20%)	Plain lands (< 5%)
Very low moisture holding capacity (moisture available only upto 2-3 days after rains)	Moisture holding capacity is upto 5 – 7 days after rains. This again depends on quality and depth of soil.	Moisture retention capacity is good
High rate of erosion	Average to high erosion	Controlled erosion
Low soil fertility – low productivity	Average Soil fertility	Fertile soil
Low vegetation cover; revenue / forest lands usually degraded; small patches of cultivated land – often encroached	Mostly Agricultural lands – usually entirely dry	Mostly irrigated lands
Crops grown – mostly minor millets; largely used for grazing/collection of fuel.	Crops grown: cereals, pulses, oilseeds. Horticulture	Greater variety in land use: cash crops, plantations, horticulture, aqua-culture, etc.

Reading 2: Various Treatment Measures for Soil and Water Conservation and for Increased Biomass in Watershed

Soil and water conservation measures vary from one watershed to another depending upon the soil characteristics as well as on the choices of people who take several factors into consideration. For example, people started finding contour bunds recommended for controlling soil erosion a nuisance, since it cut across their fields and obstructed farming activities. They preferred field boundary bunds to the contour bunds. The standard technical design of stone bunds serves a single purpose - namely reducing soil erosion, people often opt for multi-purpose bunds, for example they opt for stone bunds of 3 to 4 feet in height which provide protection from grazing animals as well as reduces soil erosion.

The following paragraphs describe the practices adopted on various MYRADA watershed projects for treating lands, conserving water and increasing biomass in various locations. The measures have been grouped into three categories: those introduced on Private Lands, on Common Lands and along Nalas. Reference is also made to where these structures are usually located, namely in the Upper, Middle or Lower Reaches.



Facilitator's Note: There might be differences in the terms used by various MYRADA projects (or in other non-MYRADA watershed projects) for similar kind of activities or treatments. Hence the focus while reading the following paragraphs should be on the purpose, the location and other details of the activities rather than on the nomenclature used.

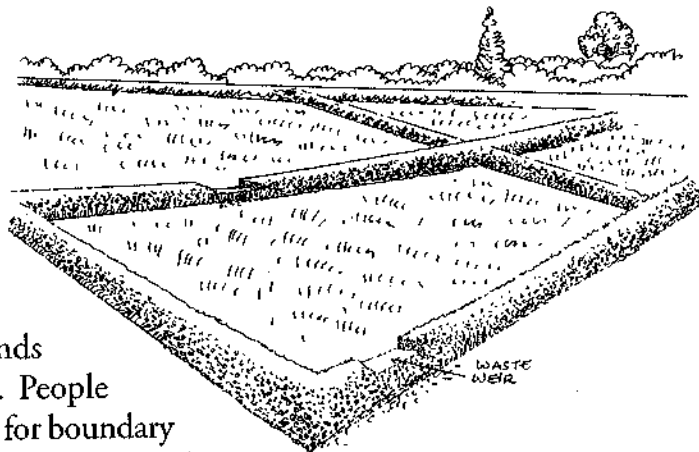
CHARTS DISPLAYING PHOTOGRAPHS TAKEN ON VARIOUS MYRADA WATERSHED PROJECTS FOR THE TREATMENT MEASURES DESCRIBED BELOW, ARE ENCLOSED AT THE END OF THIS MANUAL.

Soil and Water Conservation Measures and Biomass Promotion Measures on Private Lands:

1. Earthen Bunds, Boulder Bunds, Composite Bunds

Purpose : Control the formation of rills, arrest soil erosion, reduce water velocity, increase soil moisture.

Location : Along the field boundaries in upper, middle and lower reaches. Such structures should be constructed across the slope for maximum impact. Distance between bunds depends on the slope. People generally prefer to go in for boundary bunds first and later include intermediate bunds if required - but they must be encouraged to do so.



Why Farmers Prefer Boundary Bunds	Why Farmers Find Contour Bunds Unfriendly
• Serve a dual purpose of demarcating the boundary and conserving soil. • Boundary bunds enable individuals to invest without having to cooperate in large groups or with neighbours; this reduces the probability of conflict. • However there are negative impacts like collection of water on the lowest part of each field.	• Since these structures have to follow defined contours they cut across fields ignoring the farmers land boundaries and thus create areas which are difficult to cultivate or which may be lost. • They take up lot of space on small fields. • Contour bunds make ploughing more difficult. • The soil below the contour bunds may move downhill to a neighbour's field. • Contour bunds are adopted where land holdings are large and machinery is used.

Bunds are constructed where the slope is more than 3-4%; in medium and deep soils. Depending on the extent of the slope the farmer decides on the nature and size of the bund. On lands having higher slopes, like in upper reaches, farmers prefer to go in for boulder bunds, if boulders are locally available. Composite bunds (bunds constructed using both boulder and earth) and earthen bunds are more common in middle and lower reaches, where the slope is less and where the pressure of runoff water against the bund is reduced.

It is often noticed that mud bunds are made much larger than needed; besides they are made at times by scraping the topsoil; this must be avoided.

2. Waste Weirs

Purpose : Safe disposal of excess water.

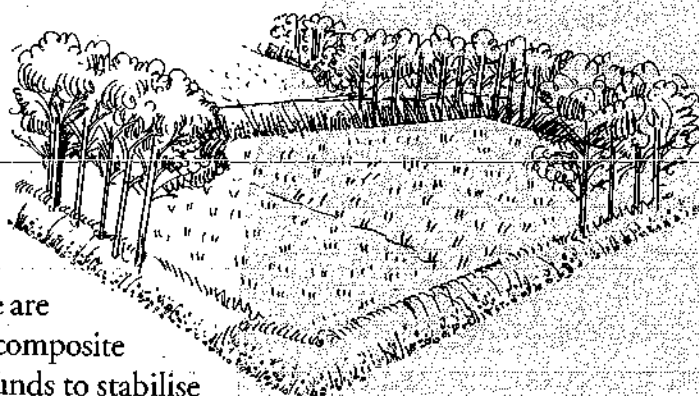
Location: It accompanies all kinds of water holding structures like check dams, irrigation tanks etc. Every field bund should be provided with a waste weir in an appropriate location to allow excess water from the field to drain out. Provisions should be made for safe disposal of this water in such a way that the field on the lower side of the bund is not damaged by erosion.

Farmers experiments with disposal of excess water:

1. A common drainage channel (nala) is constructed between the fields into which water from each waste weir flows directly. However this solution is not possible in all cases.
2. Farmers changed the mud bunds into boulder/stone bunds for about 30 feet on either side of the waste weir. The waste weir itself was constructed of stone/boulders. As a result the water flowing out was spread over a larger area that reduced the gully formation significantly on the lower side of the bund.

3. Bund Plantation With Selected Species

Purpose: To stabilise the bunds, to increase the vegetative cover, to increase food security. Selected species of plants having fruit, fodder, fuel wood, fibre and compost value are planted on earthen and composite bunds or along stone bunds to stabilise them. The trees are regularly pruned to harvest biomass and prevent shading of crops.



Location: On composite and earthen bunds

Some examples of species planted on bunds in MYRADA projects:

- Agave acts as protection from livestock and also stabilises bunds besides providing raw material (like fibre) for various cottage industries and extracts which have larger markets. It is non-browsable. Farmers prefer to grow this on large field bunds running along roads or nalas as this acts as natural protection.
- Local variety fodder grass is quite popular on bunds wherever protective irrigation is available.

- **Cassia Siamea:** Cassia siamea (a nitrogen fixing plant) is successful particularly in drier areas. It is non-browsable and drought resistant, the leaves can be composted and the wood can be used as fuel. If cassia siamea is planted on bunds, farmers need to lop the trees every year to harvest the leaves and wood and prevent the shading of crops.
- **Glyricidea** is often recommended for plantation on bunds because it is a good fertiliser and fodder. However, precisely because it is a palatable fodder plant, it has been a failure as a "bund plant" as stray cattle regularly feed on the plant leaving it stunted. It has succeeded in irrigated areas where the cattle are under controlled grazing regime.
- **Custard Apple** is popular in Anantapur District as a bund stabiliser; it is non-browsable and produces fruit which has a ready market.
- **Castor and Pigeon Pea** are also planted on bunds in several areas.

4. Gully Plugs

Purpose : There are cases where large gullies are formed often in the middle of private lands. To check further widening and deepening of these gullies, farmers construct structures across the gully with boulders/stones or, depending on the size of gully and availability of materials, use partly boulders/stones and partly soil (composite gully plugs). These structures besides arresting soil erosion collect silt in the upstream and gradually the field gets levelled. This has proved to be a good way of bringing uncultivable lands under cultivation. In many cases farmers stabilise these plugs with vegetation. Farmers usually start with a low structure and gradually raise it as it fills up with soil.

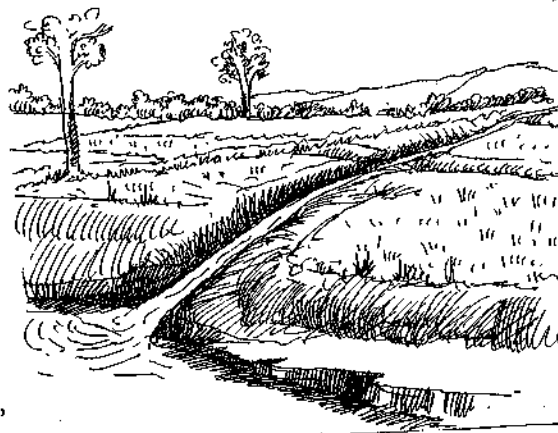


Location : Usually on uncultivated private lands in middle reaches.

5. Field Diversion Drain

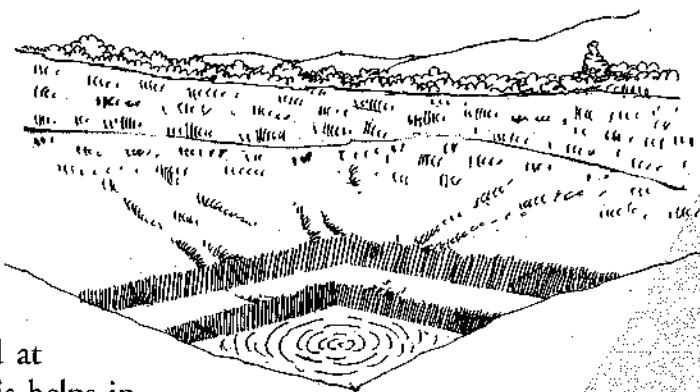
Purpose : Safe disposal of excess water from cultivable lands. Excess water from cultivable lands is diverted towards natural drainage through diversion channels to prevent water from entering into private lands lower down.

Location : On private lands in upper, middle and lower reaches



6. Farm Pond

Purpose: Surface water from an individual's field is collected at the lowest point in the field to conserve surface water run off which can be later used for protective irrigation. Also at times, excess water from the fields above which is diverted through channels towards the natural drainage is intercepted at an appropriate location and trapped in farm ponds located at specified locations. This helps in preventing the crops from getting damaged and in reducing runoff which could cause gullies lower down. However, this structure has certain disadvantages – it takes up cultivable space, is expensive, percolation in the initial years is high (even though this leads to increase in soil moisture) and lifting water to the upper parts of the field is difficult and costly.



Location: In lowest portion of private fields adjacent to the bund. Usually in fields located in the middle and lower reaches.

7. Shallow Wells

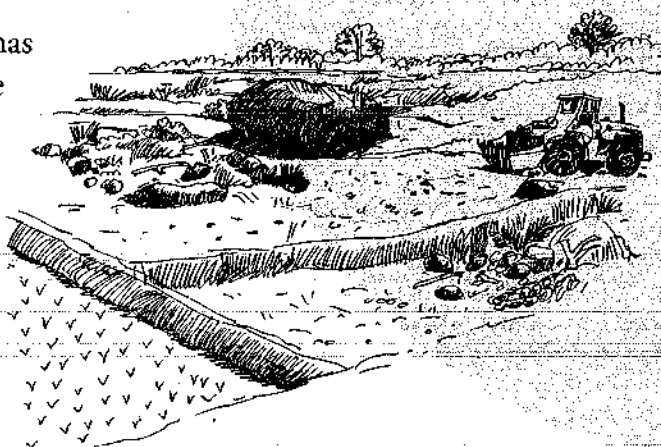
Purpose: To tap sub-surface water and use it for protective irrigation.

Location: Next to nalas which have been treated; at locations where there is more seepage. Usually successful in middle reaches in fields adjacent to the treated nala. The average depth is 10 to 12 feet.



8. Land Shaping / Clearance

One example where this measure has been adopted by farmers is in the KAWAD supported project in Chitradurga District where the fields were very uneven, badly eroded with large gullies and with big boulders and thick bushes making cultivation difficult.



Purpose: It is undertaken to remove boulders and level parts of a field to facilitate uniform soil moisture, reduce run-off and to make ploughing easier.

Location: Usually in middle and lower reaches

9. Regeneration of Private Lands lying fallow

Purpose: To improve biomass and forest cover; to reduce soil erosion; to increase percolation.

Location: Private fallow agricultural lands and temple lands where the title to land is clear.

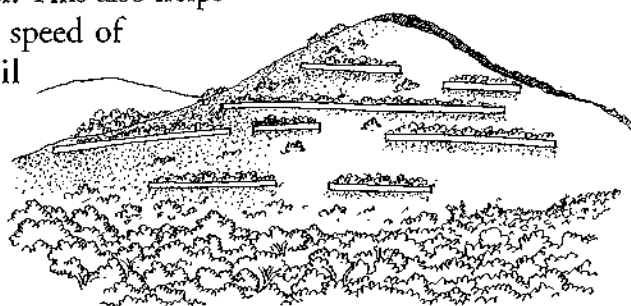
In many watershed management projects, not much attention is given to private lands lying fallow. Yet there are several fields which lie fallow since the owners have migrated or do not find farming very rewarding. The WDAs have found that they can increase the biomass in the watershed as well as reduce soil erosion and improve percolation if they include these private fallow lands in their programme. Many WDAs, particularly in Mysore/Chamrajanagar and Gulbarga Districts have entered into an agreement with the fallow land owners whereby the WDA agrees to protect their lands. As a result the biomass on the property regenerates. The agreement keeps the ownership of the trees with the land owner but the watershed families, particularly the landless, have the right to harvest loppings for fuel and grass for fodder. This is a win-win situation where all benefit, and is a good opportunity to provide benefits to the landless.

Soil and Water Conservation Measures and Biomass Promotion Measures on Common Lands:

1. Deep Trenches (Staggered Contour Trenches, Continuous Contour Trenches)

Purpose: To hold water in upper reaches leading to increased percolation and soil moisture and recharge of ground water. This also helps to reduce the quantum and speed of water thus reducing soil erosion.

It has been found that these treatments in upper reaches result in retaining water for a longer period in structures like wells, ponds, nalas etc. in the downstream. Increase in the soil moisture enables the growth of trees and biomass. This measure is often accompanied by afforestation.



Location: These treatment measures are suitable for barren hillocks and common fallow lands with steep slopes in the upper reaches; usually in degraded forestlands, revenue lands and common lands

2. Percolation Ponds in upper reaches

Purpose: To arrest run-off; to enable collection and percolation of surface water in order to recharge the ground water table. Increase in soil moisture helps cultivation in the downstream. When water is available in these ponds for some parts of the year, it serves as a cattle pond.

To take up this activity the soil should have good infiltration and sub-surface drainage properties. Downstream areas of the percolation pond should not be susceptible to salinity and alkalinity.



Location: Usually in upper and middle reaches in common/revenue/degraded/forest lands

3. Small Tank Rehabilitation

Purpose: To rejuvenate old and unused tanks traditionally used for domestic purposes and not for irrigation.

Treatment measures involve bund strengthening, cleaning and clearing surrounding area, silt removal, foreshore soil stabilisation by plantation, feeder nala treatment and introduction of management systems. Silt harvested from these tanks is applied on agricultural lands to increase their productivity.

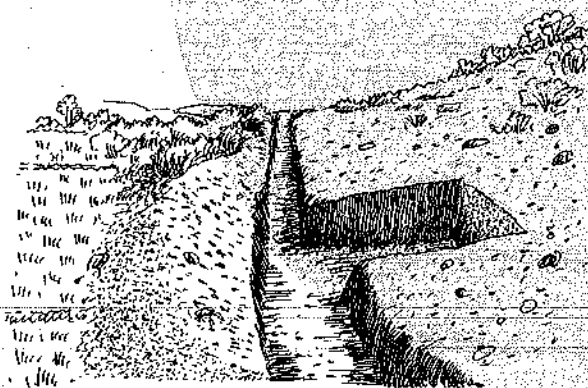


Location: Existing tanks in the middle or lower reaches, usually within or near a village or habitation.

4. Diversion Drains

Purpose: Mainly to divert the water flowing down from the Upper Reaches towards the natural water course, thus preventing it from flooding and eroding cultivable lands.

This treatment is recommended for areas where cultivable land lower



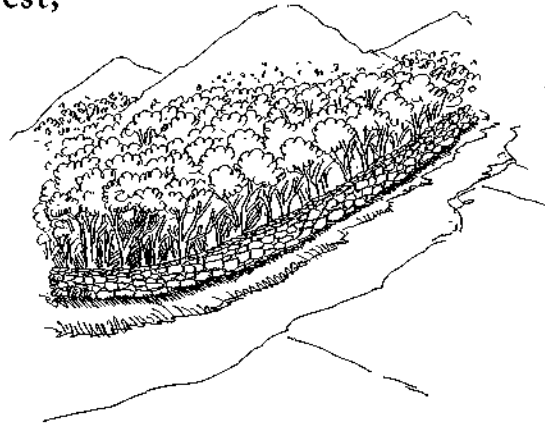
down borders common land like forest and revenue lands on the ridges. The design depends on the slope and the nature of the soils. At times this is combined with intermediate pits in the dugout drain to trap silt, which is used by farmers. Many farmers block dugout drains at intervals after heavy rains to intercept the water and allow it to percolate into their fields. This increases the soil moisture in their fields.

Location: Upper reaches mostly.

5. Regeneration of Degraded Forest, Revenue and Common Lands

Purpose: To increase biomass like fodder, fibre, fuel wood and vegetative cover; arrests soil erosion and promotes water retention. In some cases the regenerated areas provide the poor with options for alternate livelihood.

Location: Usually in upper reaches and along the ridge line.



Afforestation of degraded areas in the upper reaches is a costly initiative, as it requires nurseries, pit digging, soil filling and finally watering and protection. The survival rate of the saplings is usually very low in dry and rainfed areas. Hence, in few of the MYRADA watersheds, after discussions with the WDA, attempts were made to allow the existing rootstock in a degraded area to grow. This intervention required protection of the area from grazing and allowing access to fodder and fuel in a planned manner. This was done by cordoning off the area by either fencing or by constructing 3 feet to 4 feet high boulder bund/wall at the foot of the hill encircling the area. The bund also helped to arrest run off, thus increasing the soil moisture in the protected area. In 4 years time the entire area was rich with biomass. This was possible only with the cooperation and participation of all the people depending on the protected area and a commitment by them towards the protection of the area. Rules were framed by the people for sharing the usufructs. The institutions which played a major role were the SAGs and WDAs.

Treatment Measures in the Major Drainage Lines (Nalas)

1. Nala (drains) Banks Stabilisation

Purpose: To prevent the nala banks from collapsing. To maintain the natural course so as to avoid the waters from damaging the adjoining lands. If well stabilised, it increases the potential for digging open shallow wells alongside the nala in the fields.



Location: Where the soil is more prone to collapse or where the nala bends and changes direction and makes the banks vulnerable to damage, extra efforts for stabilising the banks need to be made.

Nala bank stabilisation is done by constructing boulder retaining walls, pitching the banks with boulders, planting special species of trees/grasses like bamboo, local weeds, etc.

2. Nala Checks

Purpose:

- To reduce the velocity of flow in the nala
- To arrest soil erosion and to reduce sedimentation of tanks/ reservoirs
- To avoid further widening and deepening of the nala
- To conserve water for ground water recharge
- To provide protective irrigation, drinking water for cattle and wild life.
- To increase moisture regime



In MYRADA watershed projects, in order to trap the silt, a shallow pond/ pit is dug (called **silt trap** or sunken pond) just before or on the upper side of the nala check. This silt is used by farmers to make their land more productive.

It is often noticed that these nala checks are made too high, as a result when there is heavy rain, water overflows into the surrounding fields. From MYRADA's experience two guidelines emerge which are easy to follow: 1) The height of the check (structure) should not be more than $\frac{1}{3}$ the depth of the nala; several such checks may be installed along the nala; and 2) the vertical interval between two consecutive nala checks shall not be less than twice the total height of the upper check.

If a nala is treated from the top to the bottom by series of nala checks/plugs and small structures in appropriate locations, heavy or major structures can be avoided in the lower reaches, thus reducing the cost of treatment in lower reaches and increasing moisture content in the middle and upper reaches. Normally these checks are constructed with boulders/stones. If vegetative checks are made they need to be supported by composite structures.

Location: These are checks laid across the natural drainage course in upper and middle reaches.

3. Check Dam

In a participatory watershed project, where people are given an opportunity to express their opinion with regards to the location of check dams, the technical feasibility also becomes very important. If a site selected is technically unsound it must be rejected even if people give it the first priority. However, the opinions of several technical staff should be taken before a final decision with the people is made. Options for alternate sites with technical feasibility must be explored.

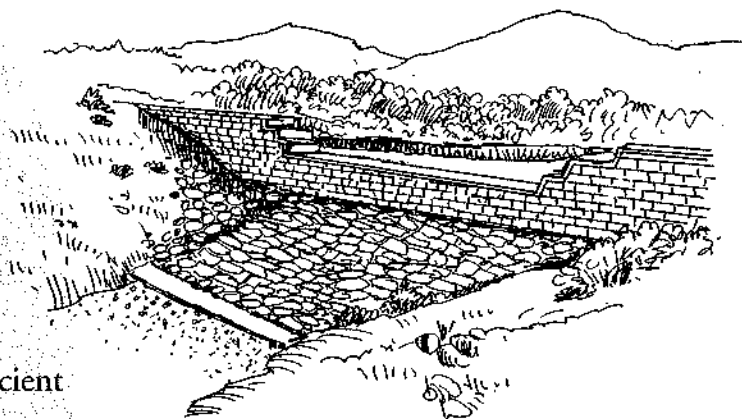
Check dams are of various types depending on the nature of soil, water flow and purpose. Few types of Check dams which have become popular are described below:

a. Gravity Dam/Weir -- Overflow type:

Purpose: To enable control of runoff water; increase ground water recharge and ensure water availability for a longer period. The impounded water is used for domestic purposes and livestock and sometimes for protective irrigation through canals and gravity flow and pisciculture.

Site Selection Criteria:

- Usually constructed in the Lower Reaches of a major nala.
- Width of the nala/ ravine should be minimum at the site proposed.
- The nala/ ravine must have defined and stable banks at the proposed site.
- The site should have hard strata at reasonable depth.
- The gradient of the ravine bed should be gradual and less than 3% for a distance of about 100m above the point of the proposed site.
- There should be sufficient catchment area with adequate run-off and sufficient impounding area.



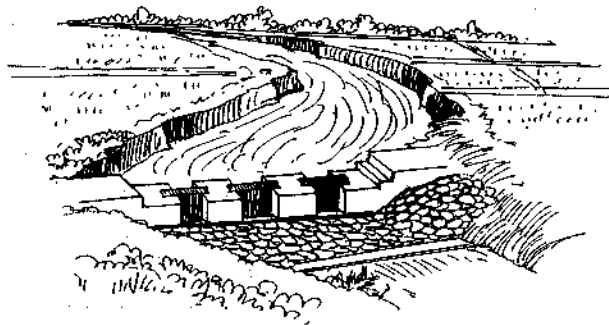
The quantum of discharge during high floods should be assessed and the height of the weir wall should be fixed so that the entire discharge runs through the spillway of the weir and does not flow around the sides, flooding neighbouring fields. The tendency to construct weirs as high as possible should be avoided strictly.

b. Vented Check Dam/Weir:

Purpose: The purpose is the same as mentioned above, the only difference being in the construction technique.

This dam structure is provided with vents which are opened during heavy rains allowing water to flow. This prevents the adjoining lands from flooding and

flushes out the silt accumulated. The vents are closed during off-season to store water. This is done using wooden planks (preferably of *neem*). Two parallel planks packed in between with silt form one unit; several units are placed one on top of the other vertically till the required height is reached.



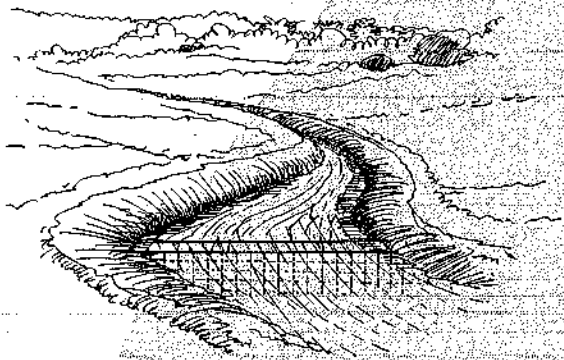
Site Selection Criteria: This dam is suitable where the nala is not deep and the nala banks are low; but all other specifications for constructing a dam (as mentioned above for Gravity/ Overflow Dam/weir) are required to be met.

The major problem with this vented structure is to ensure that the vents are open and closed at the appropriate time. This is the responsibility of the WDA.

c. Sub-surface Dam:

Purpose: To store water below the ravine bed, to reduce evaporation loss and to recharge ground water.

Location: Deep soil (or deep sand bed) with good infiltration, hard and continuous rock bed, adequate impounding area in the upstream.



Usually these subsurface structures are constructed where the river bed or nala traverses a flat area where sand has accumulated to a depth of at least 8 to 10 feet. Where subsurface dams have been constructed the open wells along the river/nala bed report better recharge. Loss through evaporation decreases considerably.

The dam walls in sub surface dams used so far in MYRADA have been made of quality brick and cement plaster; AC sheets and clay filling in polythene sheets have also been tried elsewhere.

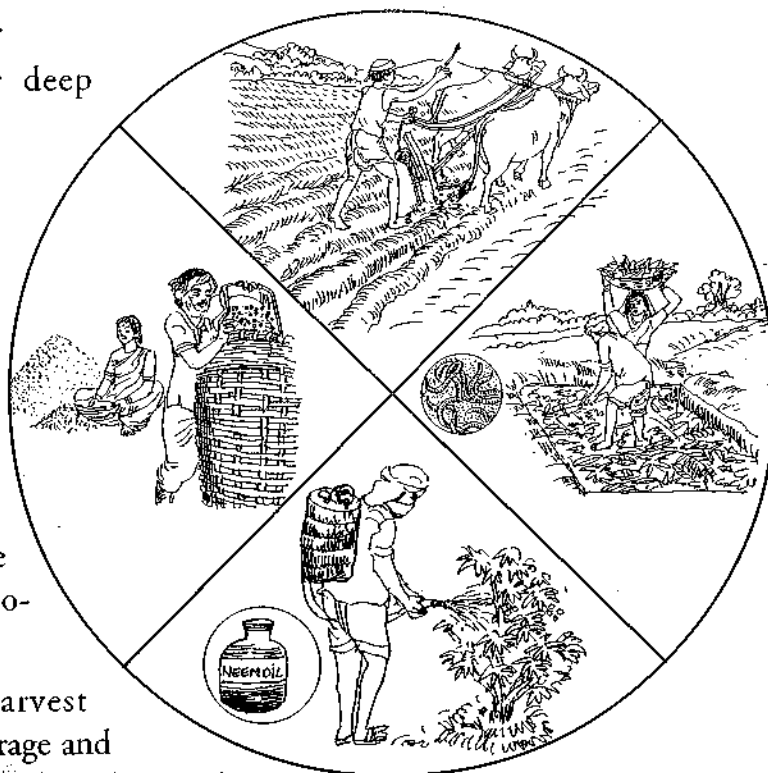
Reading 3: Examples of Agricultural Practices and Water Management Techniques Adopted in MYRADA Projects

As mentioned in the earlier parts of this manual, the focus of integrated watershed management is not only to enhance the productivity of the soil and to increase the water holding capacity of the watershed, but also to sustain the increased productivity and to manage judiciously the water that is conserved by the entire process mentioned above. Hence the following paragraphs describe another aspect of integrated watershed

programme – namely, agricultural practices that can make increased productivity sustainable, and water management techniques for judicious use of scarce water resources.

Following are some of the agricultural practices which are being advocated/adopted in various MYRADA projects:

1. Ploughing across the slope.
2. Summer ploughing or deep ploughing
3. Sowing across the slope
4. Preparing and using bio-fertilisers by composting, vermi-composting, green manure, etc.
5. Adopting Integrated Pest Management (IPM) – use of neem oil, installation of pheromone traps, application of bio-pesticides, etc.
6. Adopting post harvest technologies like seed storage and protection from pests and rodents (save grain campaign, traditional seed treatment systems, etc.)



Following are some of the water, nutrient and energy management practices which are being advocated/adopted in various MYRADA projects:

- a. **Collection of run-off from roofs:** Direct channelling of roof run-off to recharge dry open wells in the village.
- b. **Recharge of bore and open wells** by constructing soak pits filled with boulders adjacent to the wells and to collect surface water flow or from roof water directed to soak pits through pipes.

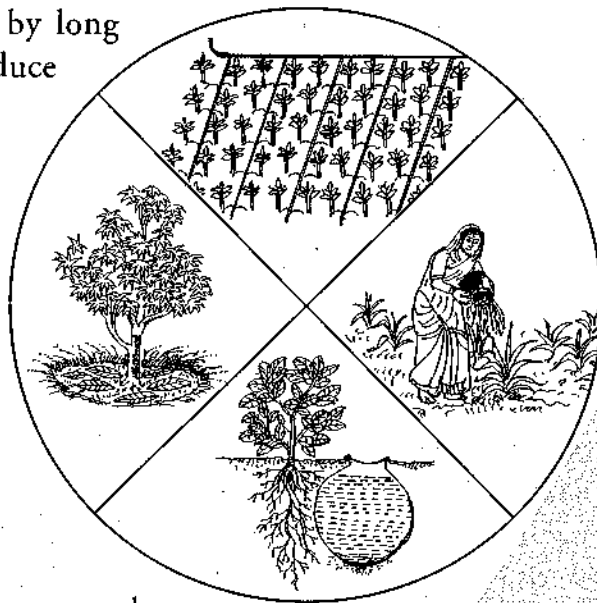
MYRADA's attempts at water conservation & management:

1. **Roof/Rain water harvesting:** For management of water at a household level, some of MYRADA's projects are propagating roof rainwater harvesting structures. The idea behind this is to conserve as much rainwater as possible by storing it in specially constructed underground storage tanks. With some treatment for preserving the quality of water, this water is used in dry season for domestic purposes. In many villages attempts have been made to collect roof rainwater and lead it through pipes to a nearby open well which is dry.
2. **Surface water management** – In some projects surface water is led to soak pits near bore and open wells.

c. **Mulching** and better soil cover by long duration crops like castor to reduce evaporation.

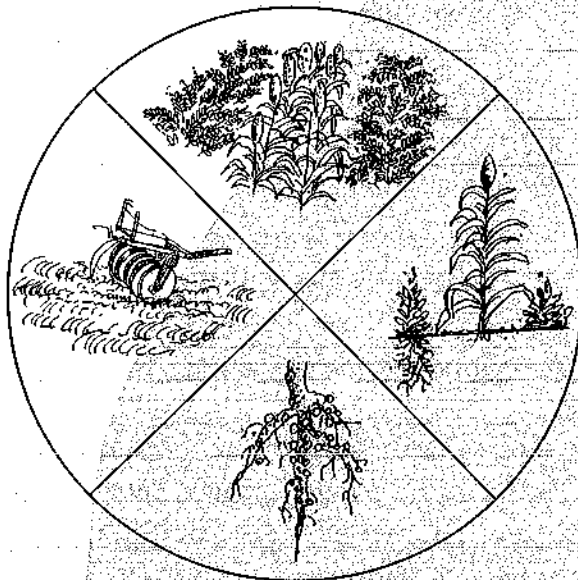
d. **Judicious use of water for irrigation:**

- Crop planning: preference for crops using less water in drylands.
- Drip irrigation systems, bucket and drum kit irrigation
- Pot irrigation
- Use of sprinklers
- Shifting from flow irrigation in tank command areas to open wells.



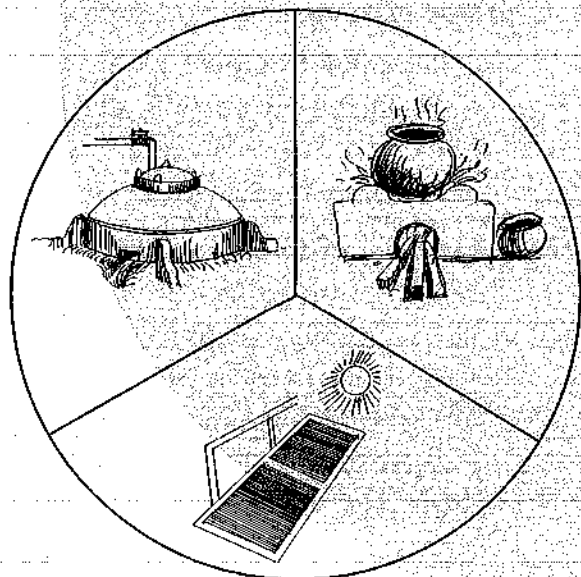
e. **Integrated nutrient management:**

- Crop rotation
- Use of appropriate tillage practices (like deep ploughing)
- Agriculture residue management (use of crop wastes)
- Inter cropping and mixed cropping (row and strip) with legumes
- Use of high nitrogen-fixing crops.



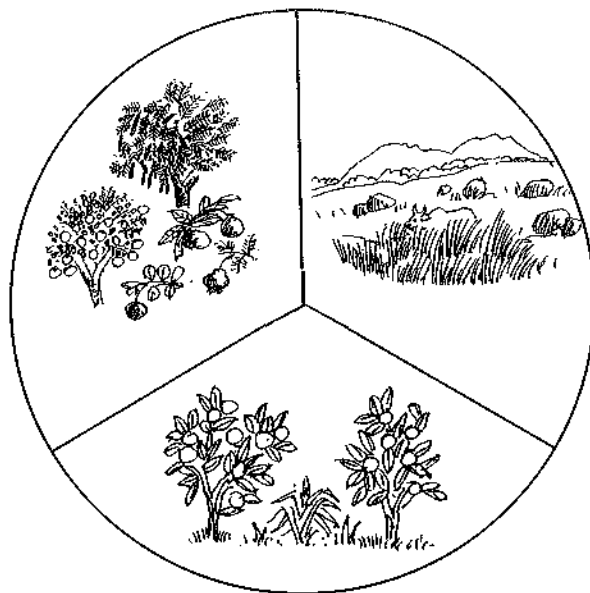
f. **Energy management (with a view to reduce pressure on natural resources):**

- Bio-gas
- Solar energy
- Fuel efficient Chullas
- Gas cylinders for domestic use.



g. Alternate land use management:

- Dry land horticulture (promoting sapota, pomegranate, tamarind, guava, lime, orange, etc.) – in middle reaches
- Agro-forestry (for use as fodder, fuel, timber, poles for house construction, etc.)
- Fodder plots (use of waste lands for growing grasses like hamata, scabra, etc.)

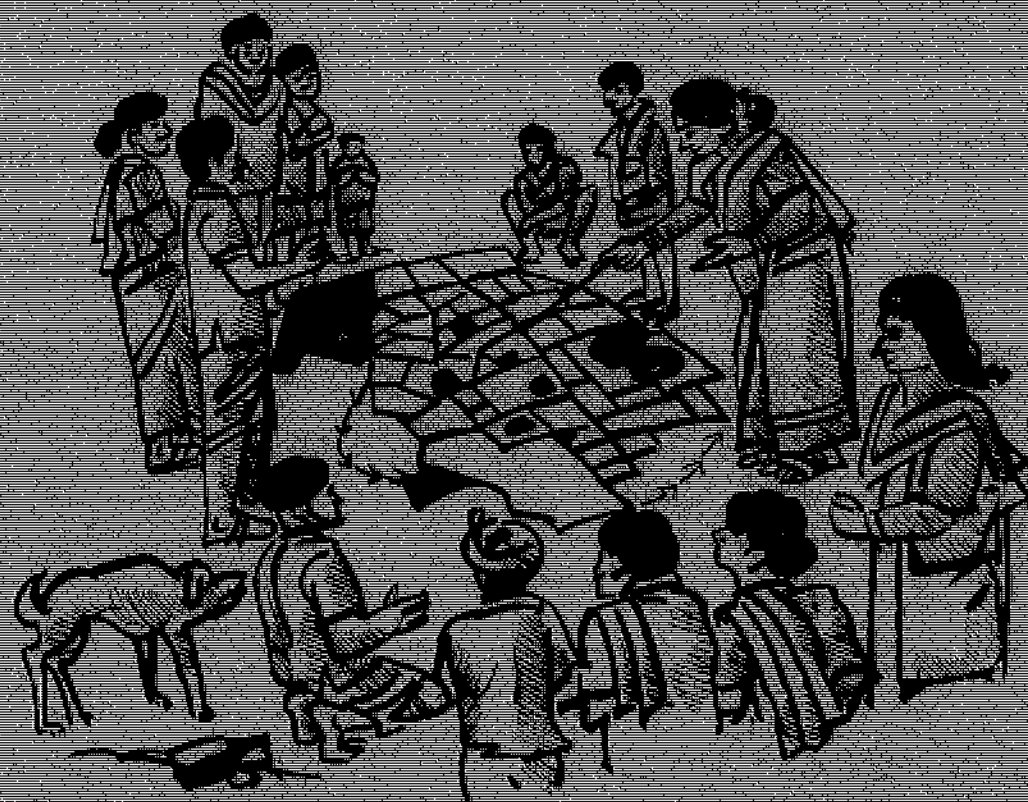


NOTE: FOR FURTHER READING RELATED TO THE ABOVE MENTIONED ACTIVITIES REFER TO 'RESOURCE MANAGEMENT IN RAINFED DRYLANDS – AN INFORMATION KIT', PUBLISHED BY MYRADA AND IIRR

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper appears to be from a notebook or a set of loose-leaf papers. The edges of the paper are slightly irregular, suggesting it might be a scan of a physical document. There is no handwriting or other markings on the paper.

SECTION 3

THE PLANNING PHASE



MODULE

3

Participatory
Planning and
Budgeting

Participatory Planning and Budgeting

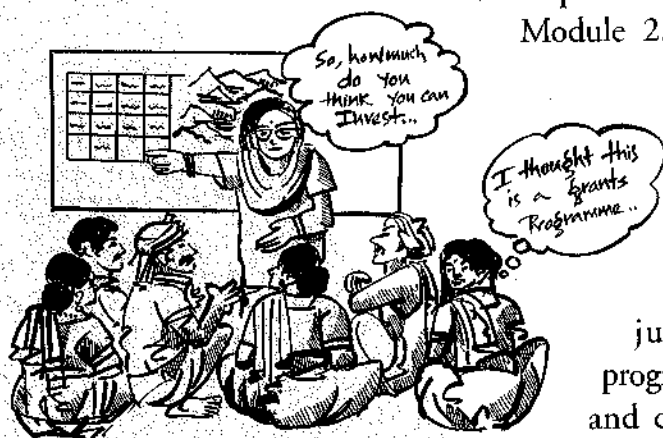
This part is not written as a module to be conducted with the people. It is a reading for the facilitator. This lesson explains and gives guidelines for participatory planning and budgeting for activities to be undertaken in a micro-watershed. Formats for the same are provided for easy reference but only as a guide. This Session is not presented as a module for WDA members because the plans emerge after a highly interactive process on the field between the staff of the intervening organisation and the other stakeholders of the watershed.

Planning and Budgeting are two crucial components in the process of watershed development and management. As explained in

Module 2.4 'Why Participation', people must

be involved because it is their lands on which work is carried out and the intervention concerns their livelihoods. Unless they are fully involved and increasingly gain ownership of the process – and not

just remain beneficiaries of the programme – they will not acquire the skills and confidence which are necessary for



sustainability of impact. These skills can be acquired by people if space and support is extended to genuinely involve them in the planning, budgeting and implementation of watershed treatment.

Budgeting forms a crucial part of any planning and is in-built in a micro-plan. While preparing the budget one should take into account the smallest details that have any financial implications. Some examples are – local contributions (in cash, labour, kind, etc.), operational costs (direct and indirect), equipment, facilities, services, maintenance, supplies, etc. Available and required facilities and services need to be studied and assessed.

There is a need to estimate in monetary terms the expenses for services, facilities, equipment and materials that could be obtained as contribution from the community for two major reasons:

1. The community gets a clear idea about its contribution to the project.
2. This reinforces a sense of ownership of the project in the community. Including the community contribution as matching fund towards the project during budgeting itself, gives an idea about how much money the community is able to mobilise on its own.

To provide a focus to this lesson, only Planning and Budgeting will be considered here. These two components will be treated separately in three categories namely:

1. Planning and Budgeting for private lands
2. Planning and Budgeting for common lands/resources
3. Planning and Budgeting for drainage lines

A format for a Consolidated Plan and Budget for the above three areas is provided in this part.

Before proceeding with the micro planning exercise, the facilitator must be aware about the provisions under the Watershed Programme. The details can be obtained from the Project Guidelines. For example, he/she should know:

- The land based programmes that can be undertaken.
- The non-land based programmes that can be promoted for the resource poor.
- Village development programmes that can be promoted.
- Funds available for various activities.
- Financial arrangements like contributions, loan, revolving fund, working capital, etc.

Before Micro Planning:

The purpose of the earlier transect (mentioned in *Module 1*) was primarily to identify the boundaries (ridge line) of the watershed and in case of larger watersheds, to identify micro-catchments within the watershed. The farmers in the catchment were also identified during the exercise.

After delineation, the farmers and other stakeholders form a Watershed Development Association (WDA) based on the micro-catchments identified. This Association then goes through a series of trainings (Modules 2.1 to 2.5) where the concept of watershed management, the role of people, the institutions required, etc. are discussed. They are taken on an exposure to a treated watershed to get acquainted with the watershed activities on the field. This is an opportunity for the farmers to interact with WDA members of the treated watershed.

Once they become knowledgeable about the various kinds of activities possible under the programme and the process of implementation, it is easier for them to plan the same for their own watershed. Thus starts the planning phase...

Tips for the planning exercise:

- Try to get all the farmers owning land to participate in the exercise.
- Participation of people not owning land, but dependent on the watershed for its resources is also important.
- Involve local Departments based on the needs of the programme.
- Ensure women's participation at all levels.
- Keep in mind the interests of the vulnerable group.
- Involve the Gram Panchayat and Gram Sabha.
- Try to plan treatment for every inch of land possible. There should not be any land left out of the plan. Ensure that they include private lands lying fallow, temple lands, common lands and drainage lines.
- Encourage the people to list out their priorities and to decide when to take up each treatment measure. This decision of theirs, depends on a lot of factors such as the season of implementation, migratory patterns, the budget (in case they are required to contribute), their immediate needs, etc. Guide them regarding which measures are possible under the present programme and which can be taken up later.
- While budgeting, keep in mind the internal and external resources available for implementation.
- Build on the indigenous knowledge and practices of the people.
- Ensure that impact of any treatment measure already undertaken in the catchment is also considered during planning.
- Ensure that budgeting is done considering people's contribution. People contribute to each measure either in cash, labour or kind. Do not impose a uniform contribution from people to all activities.
- Involve technical staff in this exercise.

How to facilitate Micro Planning**Step 1 : Transect walk**

This transect focuses on identifying the resources of the watershed - relating their availability to the present demand and assessing their potential as they exist. Existing vegetation, cropping pattern, farming practices (including irrigation), fodder and fuel wood status (as compared to people's need), forest resources and its users, land use pattern, existing structures, etc. are

Materials required for transect:

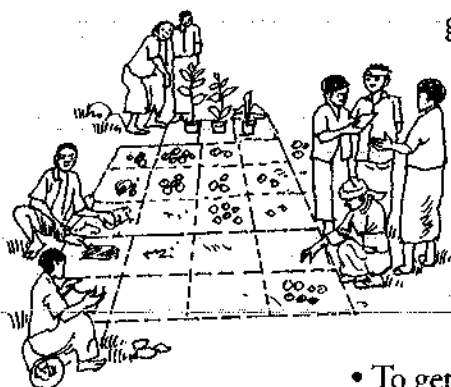
1. Watershed map (showing the delineated catchment) prepared during the previous transects
2. Drainage map culled out from the toposheet
3. Cadastral map – showing various land boundaries along with their survey numbers and also the common lands
4. Khatedar list – list of all the land holders with the extent of land holdings and survey numbers

studied in depth. Problems and opportunities on site-specific issues are studied and explored. In case of large watersheds (above 1000 hectares) the watershed area is sub-divided for the transect according to micro catchments of 100-150 ha. Farmers owning land in a particular micro catchment are part of the group studying that area. During this transect, the official khatedar list can be verified as to whether it coincides with the actual situation



in the field. Details related to ownership and use of private and common lands can be obtained during this transect. Observations are recorded on maps showing the watershed boundary and drainage lines, which are given to each group and to which all the members can relate easily.

Step 2: Participatory Resource Mapping: (refer MYRADA PRA-PALM Series 4 D)



After returning to the village from the transect, the group or groups make a model of the entire watershed showing boundaries of private lands and common lands, details of ownership and use of lands and other resources, location of major nalas and gullies, location of water bodies and common lands, different types of vegetation and soil types in different parts of the watershed, and forest lands if any. This helps in the following ways:

- To get an overall view of the watershed and the state of its various resources.
- To cross-verify the details collected by various groups in a bigger audience.
- To arrive at a common understanding of the problems and their causes, particularly related to soil erosion and water management.

This exercise is carried out in the open, in a place which is accessible to a maximum number of people from the village. The mapping can be done either on the ground (drawn by hand using a stick, coloured chalk, rangoli powder, etc.) or by modelling (creating three dimensional models for representing tanks, habitation, trees, forest, etc. using materials like stones, sticks, tree branches or twigs, etc.) which is later transferred to paper and verified by the people.

During the planning exercise, try to guide people to develop their plan which is based on their vision of what they want their watershed to look like ten years hence in order to support their livelihood base. One way to go about this is by suggesting that during the mapping exercise, people develop three models - the first depicting what their watershed looked like 20 to 50 years ago; the second what it is today; and the third, what they want it to look like in the future. These can be done with sand, mud, coloured powders, twigs of trees, etc.



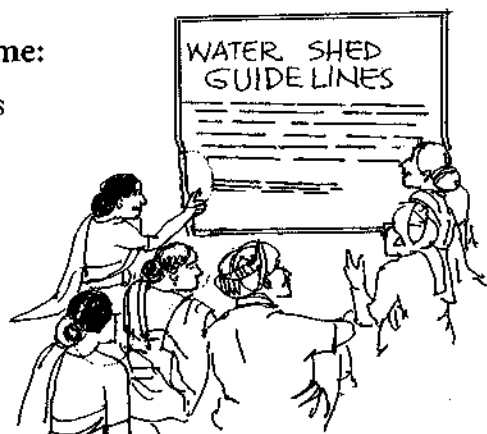
Step 3 : Introduce the people to the watershed programme guidelines. Brief them about the activities that can be taken up as well as the financial aspects.

Before starting the actual planning, the members of the WDA will require information regarding the details of the watershed programme being implemented in their watershed. The members need to know two things – firstly, the various activities that can be taken up under the present watershed programme and secondly, the financial arrangements under the programme.

People need to be briefed on the following:

Provision for activities under the programme:

- Activities that can be taken up on private lands
- Activities that can be taken up on common lands
- Activities that can be undertaken for drainage line treatment
- Any support for the landless families
- Scope for other income generating activities
- Scope for village development activities
- Any promotional activities like IPM, INM, agricultural practices, water management techniques, etc.



Financial arrangements under the programme:

- Total fund available and for what activities – example: funds available for various soil and water conservation activities, dry land horticulture, agro-forestry, other promotional activities (like IPM, INM, etc.), working capital assistance available to the SAGs, etc.
- Investment expected from the farmers and other resource users for various activities. In case the programme requires the farmers to take loans – then the pattern of management/ repayment.
- Project contribution
- Other sources of funding if any

The WDA members will need to keep these things in mind during planning.

Step 4: Planning For Private and Common Lands, and the Drainage Lines

Planning for all the lands in the watershed is done by transecting the area along with all stakeholders. If it is a smaller watershed, all lands and drainage lines can be transected and planned in one exercise. In case of bigger watersheds, separate transects can be carried out for common and private lands.

► Planning and Budgeting for Private Lands:

Planning for private lands is done by transecting each and every farmer's land in the watershed. The team should consist of representatives from the facilitating agency, members of WDA (consisting of all farmers and other stakeholders in the area), watershed committee members and technical staff from the facilitating agency/Government.

Based on the indigenous knowledge of the farmer coupled with the knowledge gained during the exposure to a treated watershed (Module 2.5) a farmer suggests various activities that are required on his/her land. The unit rates for various activities and the proportion of investment expected from the farmer should be spelled out clearly to help him/her take decisions. The technical aspects regarding the activities such as appropriate location, size, type, etc. should be discussed with the farmer. Indigenous knowledge should be respected and considered if feasible. All this information helps the farmer to take decisions regarding what activities to be taken up in his/her land. A decision needs to be taken by the farmer regarding prioritising the activities proposed and 'when' he/she would like to take them up.

Details regarding the activities to be taken up in each of the farmer's land are first recorded in a separate register called the **Micro-Plan register**. This register has 2 sheets per farmer which contain information regarding each farmer in the watershed. Details like the extent of land, existing features, activities planned, etc. are recorded in this register. (A sample sheet from this register is given on Page 126-127. After planning for all the private lands in the watershed is completed, the individual farmer wise information from the register is transferred and consolidated in the format given on the following page.



1	2	3	4	5	6	7
Sl. No.	Land Survey Number	Where is the land? (Upper – U, Middle – M, Lower – L)	Name of the Farmer	Category of Farmer (Small, Marginal, Rich, Poor)	Extent of Land	Type of land (Cultivable, Uncultivable Irrigated, Rainfed etc.)

8	9	10	11	12				13
Activities Proposed	No. of units proposed	Unit rate	Total Unit Cost	Investment by the farmer (in Rs.)				Contribution from project fund
				Cash	Material	Labour	Total	

14				15			
Phasing of the activity				Phasing of the budget (in Rs.)			
Year 1	Year 2	Year 3	Year 4	Year 1	Year 2	Year 3	Year 4

In most watershed projects managed by MYRADA, the WDAs have decided to convert the grants given to the WDA for treatment measures on **private lands** into loans to individual members. There is evidence that in these cases, the budget is comparatively smaller than in cases where grants are given. The management and maintenance of structures also improves. In many cases there is increased diversification of crops with a shift to cash crops as the impact of the watershed treatment increasingly reduces the risk of crop failure due to dry periods and increases productivity.

Extract from Micro-Plan Register (Sample Sheet)

Date : 30/4/2002

Farmer Name : Pujari Boraiah

Survey No. : 87 B

Location of the land: Upper/ Middle/ Lower reach in the watershed

Total Extent of land : 1.21 hectares

Soil Type : Red soil

Type of land : Cultivable and rainfed

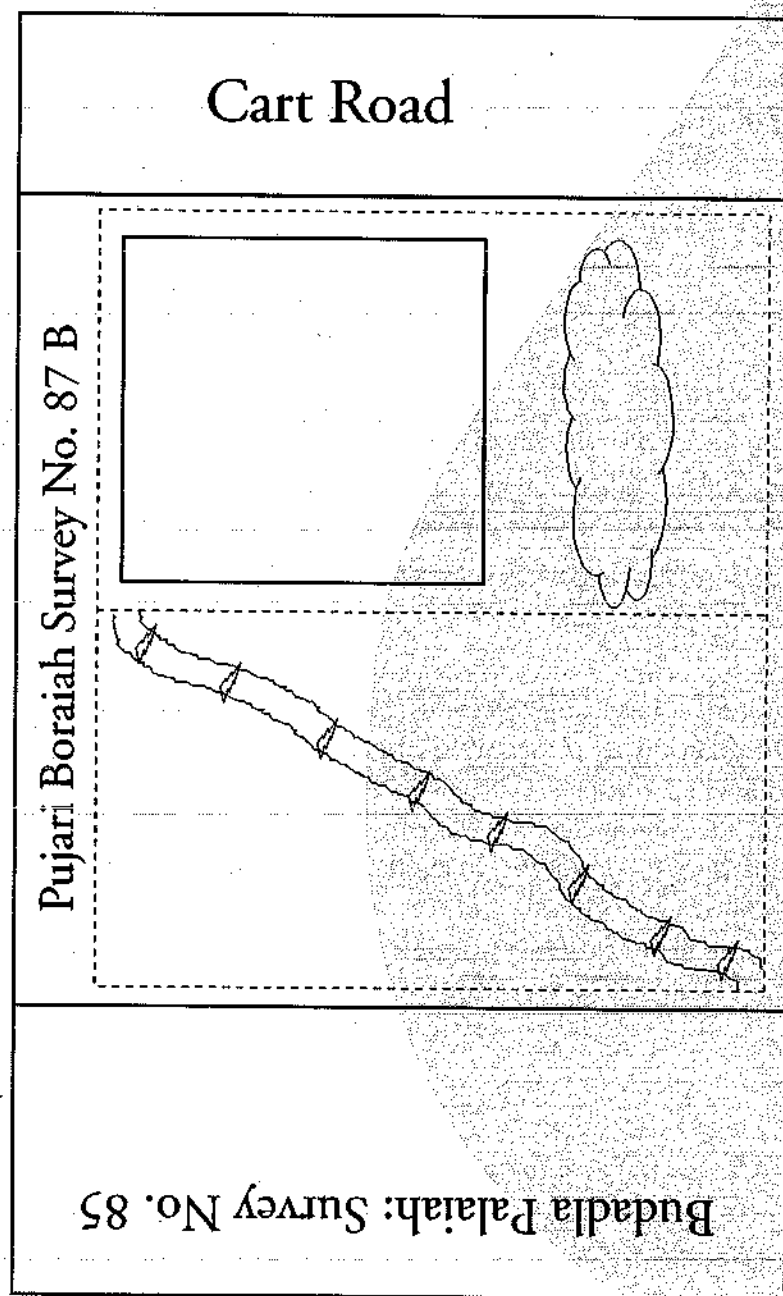
Average Slope : 3%

Crops grown : Groundnut, Horse Gram, Red Gram, Finger Millet

Problems observed:

1. Rills formation in the centre of the land
2. Soil erosion
3. Big boulders occupy large parts of the cultivable land

Map Of The Land



Dasara Palaiah : Survey No. 88

Activities proposed	No. of Units proposed	Cost per Unit	Total amount	Contribution from the farmer	Phasing of the Activity				Phasing of the Budget (in Rs.)			
					Yr. 1	Yr. 2	Yr. 3	Yr. 4	Yr. 1	Yr. 2	Yr. 3	Yr. 4
Earthen Bund formation	230 Rmt	10.25/ rmt	2357.50	589.00	230 Rmt				2358.00			
Land Shaping(reclamation)	0.80 ha.	4312/ Ha.	3449.60	1380.00	0.80 Ha.				3450.00			
Land leveling	0.50 ha.	5500/ Ha.	2750.00	1100.00	0.50 Ha.				2750.00			
Gully check	18 Rmt	133/ rmt	2394.00	598.00		18 Rmt				2394.00		
Silt application	1.21 ha	5000/ Ha.	6050.00	3000.00		1.21 Ha.				6050.00		
Total			17000	6667								

Signature of Technical Staff

Signature of the staff of Intervening Organisation

Signature of Farmer

► Planning and Budgeting for Common Lands or Common Resources:

Planning on common lands (such as forest, pastureland, uncultivable wasteland) is carried out by transecting these lands along with all the persons using the resources and having some stake in developing them. This includes people dependent on the various resources of the common property as well as representatives from institutions having authority over resources like the Forest Department, the Panchayat, etc.

Involvement of the landless poor and near landless is a must while planning for common property resources in the watershed. Many of them will be members of the Self-help Affinity Groups (SAGs). By virtue of being in a SAG and having undergone several trainings, they will be in a position to assert their stake in the watershed.



Planning for common lands is done by prioritising the needs of the people dependent for their livelihood on its resources like fodder, fuel wood, raw materials for some income generating activities, etc. and by mapping the existing resources of the common land. Decisions regarding the activities that can be taken up on such lands can be based on the overall objective of regenerating the livelihood base especially of the poor and developing natural resources.

People should be informed about the activities that can be promoted on the common lands and the budget for the same. They must be briefed about the investment expected from them for developing the common land resources. Clear implementation, management and benefit sharing strategies need to be worked out during planning and recorded.

A Sample Format used while Planning for Common Lands is given below:
(Separate tables can be used for different categories of common lands in the watershed).

Common Land Treatment Plan

Category of Common land/ Resource: Forest/ Pasture/ Temple land/ Tank

Authority responsible for Managing Common Land/ Resource: Forest / Revenue/ Panchayat/ PWD

Survey Number: _____

Total Area Covered: _____ ha.

Present Condition of the common land/ resource: _____

Present Use: _____

Number and Category of the users: _____

Treatment proposed: _____

Objective of Treatment Proposed: _____

Who invests on behalf of the community in developing the common land/ resources?

What is the implementation strategy?

What is the management strategy?

What is the benefit sharing strategy?

Any Potential for Conflict:

1	2	3	4	5	6	7	8	9
Activities Proposed	No. of Units Proposed	Unit Rate	Total Unit Cost	Investment by the people (in Rs.)				Contribution from project fund (in Rs.)
				Cash	Material	Labour	Total	

10				11			
Phasing of the activity				Phasing of the budget (in Rs.)			
Year 1	Year 2	Year 3	Year 4	Year 1	Year 2	Year 3	Year 4

Signature of the Technical staff

Signature of staff of
Intervening Organisation

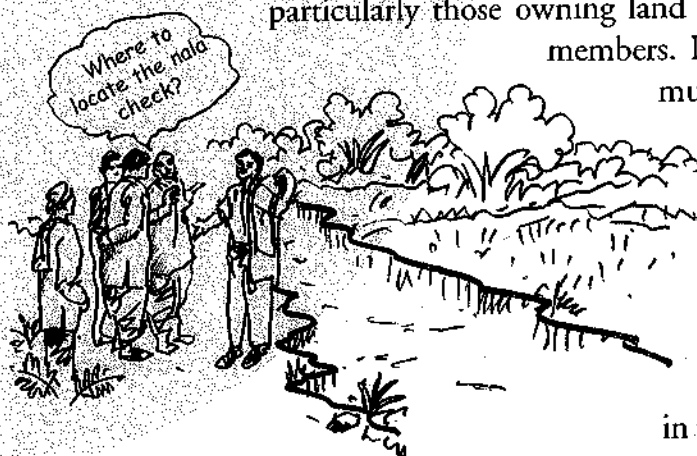
Signature of the WDA
and SAG representatives

NOTE: Plans for common land/ resource treatment or regeneration have to be submitted to the concerned authority (like Forest department, Panchayat, etc.) and permission obtained before implementation, to avoid legal complications. The WDAs/ SAGs can enter into an agreement with the concerned authority for implementing the activities and sharing the usufructs.

» Planning and Budgeting for Drainage lines:

This is done by walking along the nala accompanied by the farmers - particularly those owning land adjoining the nala and the WDA members. Presence of a technical person is a

must. Possibilities of nala checks with or without silt traps, diversion drains, strengthening nala embankment, check dams, etc., have to be explored with respect to the need and their locations. People's experience and knowledge has also to be recognised in the process.



Based on the unit cost, total cost can be worked out. Total investment that the community is ready to make as part of their contribution, and who invests should be clearly worked out and recorded. Clear implementation, management and benefit sharing strategies need to be worked out during planning.

A sample format for planning activities in a drainage line is given below:

Drainage Line Treatment Plan										
Name of the major nala: _____										
Name of the drainage line where treatment is proposed: _____										
1	2	3	4	5	6	7			10	11
Sr. No.	Activities Proposed	Location of the activity (can be given with reference to the adjoining lands or any other landmark)	No. of Units Proposed	Unit Rate	Total Unit Cost	People's investment (in Rs.)				Contribution from project fund (in Rs.)
						Cash	Material	Labour	Total	

12				13			
Phasing of the activity				Phasing of the budget (in Rs.)			
Year 1	Year 2	Year 3	Year 4	Year 1	Year 2	Year 3	Year 4

Information to be documented structure wise:

Number and Category of the direct beneficiaries of the structures : _____

Who invests on behalf of the community in the structure?

What is the implementation strategy?

What is the management strategy?

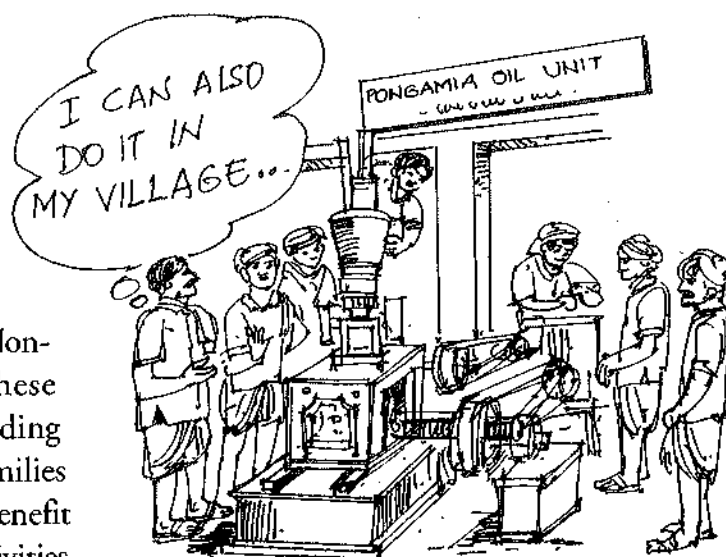
What is the benefit sharing strategy?

Any Potential for Conflict and how to resolve it ?

Signature of the Technical staff	Signature of staff of Intervening Organisation	Signature of the WDA representatives
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Step 5: Planning for Off-farm Activities (in case of provision under the watershed programme)

In KAWAD (Karnataka Watershed Development Society) and SUJALA (Karnataka Watershed Development Programme – KWDP) watershed programmes, a separate fund has been allotted for off-farm activities (known as Non-Land Based Activities). These programmes focus on upgrading the livelihoods of the poor families in the watershed who do not benefit directly from the watershed activities. Hence such programmes are taken through the SAG members who belong to the vulnerable families. Individual SAGs plan the activities based on the members needs and also on the budget available. This is consolidated for all the SAGs in the watershed to arrive at the over-all funds required for the off-farm activities.



In case of KAWAD and SUJALA, the funds for the off-farm activities (for SAGs) are routed through Watershed Committees. These funds are for skills training in specified activities and for working capital investment. In Sujala, the working capital assistance is given to SAGs as grant but then it goes as loan to individual members.

Step 6: Consolidation of Private land, Common land and Drainage line treatment plans

All the above-mentioned plans should be consolidated for the entire watershed to give the overall figures – both in terms of physical activities and their budget. This should again be phased into annual plans stretching over the entire project period, taking into account the priorities of the people, requirement of the area and also the budget available for various years (if specified) and the people's potential to mobilise resources.

The consolidated micro-plan is presented and discussed before the entire village by carrying out a Resource and Intervention Mapping Exercise.

Resource and Intervention Mapping Exercise

After the transect of the watershed for planning on various lands is over and information is consolidated in respective formats, a PRA exercise is carried out in a large open ground in the village. All the families in the watershed (the WDA and the SAG members) are invited for this exercise. Village leaders and Gram Panchayat members are also invited. People are asked to draw a map of the watershed on the ground with the help of materials like *rangoli*, twigs, earth, etc. This map includes boundaries of various kinds of lands – private/ common/ arable/ non-arable, drainage lines etc. Existing structures/ features are also marked. Survey numbers are indicated. With the help of people who participated in planning, interventions proposed on all the lands (private and common) and in the drainage line are marked.

Once the mapping is complete, people are asked to debate on the overall plan proposed. Conflicts might arise, which should be handled carefully by the staff of the intervening organisation. Implementation, management and usufruct sharing strategies are once again discussed and debated. Discussions with regards to labour availability for implementing the specified activities are held in this forum. Total budget for the activities proposed and the investment to be made by the people is discussed and clarified. All discussions are minuted. Any changes to be made in the plans are noted down. This exercise helps in the following ways:

- People get a clear picture about the entire watershed and the treatments proposed
- Transparency is ensured as everyone comes to know about various interventions proposed on private and common lands and along the drainage lines.
- Total budget and the cost sharing by the community is made clear to everybody.
- Implementation, management and benefit sharing strategies, especially for common property resources, are agreed upon in this gathering. This reduces the possibilities of conflicts in future.
- This helps the WDA to take decisions regarding the availability of labour and the possible need for use of machines during execution of works.

Any changes proposed during the PRA should be incorporated in the plan. The consolidated plan should include:

- List of activities and the extent of such activities to be undertaken on private land, common land and in drainage line
- Sequencing of these activities
- Implementation and maintenance strategies
- Time frame for achieving these activities
- Availability of labour
- Usufruct sharing strategies for common resources
- Allocation of responsibilities
- Amount to be mobilised by the people as investment towards watershed activities
- Total Budget

Sample Format for Consolidation of Private Land, Common Land and Drainage Line Treatment Plan

Sl. No.	Activity	Consolidated physical units of activity proposed (sum up of individual units proposed)	Total Budget Proposed (in Rs.)	People's investment (in Rs.)	Project Contribution (in Rs.)	Phasing of the activity				Phasing of the budget			
						1 st year	2 nd year	3 rd year	4 th year	1 st year	2 nd year	3 rd year	4 th year
A	ON PRIVATE LANDS												
1	Boulder bunds												
2	Earthen bunds												
3	Land levelling												
4	Gulley checks												
5	Dry land Horticulture												
6	Farm ponds												
7													
B	ON COMMON LANDS												
1.	Natural Forestry												
	Regeneration												
2.	Protection wall												
3.	Deep trenching												
4.	Pasture development												
5	Percolation ponds												
6													
C	DRAINAGE LINE TREATMENT												
1.	Nalla checks												
2.	Diversion drain												
3.	Nala bank stabilisation												
4													

[illegible]

Signature of Technical Staff

Signature of staff of Intervening Organisation

Signature of WDA representatives

[illegible]

[illegible]

SECTION 4

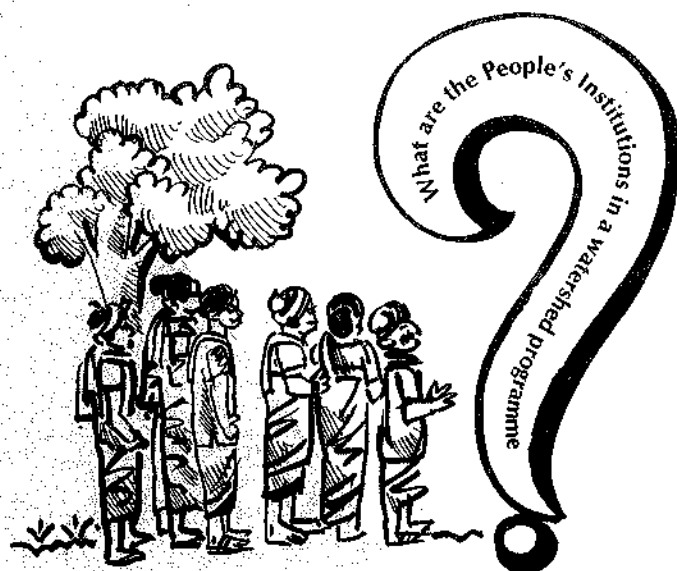
INSTITUTION BUILDING (PHASE I)



MODULES

- 4.1 Institutions in a Watershed Programme - with a Focus on Watershed Development Associations (WDAs)
- 4.2 Roles and Responsibilities
- 4.3 How to Conduct Meetings
- 4.4 Rules and Regulations in a WDA
- 4.5 Book Keeping in a WDA

Institutions in a Watershed Programme - with a Focus on Watershed Development Associations (WDAs)



Module Overview:

During the early days, watershed management was restricted to bunding on individual farmers lands and to some extent to drainage line treatment by constructing gully checks and check dams. The Department (responsible for the programme) carried out these treatment measures without involving the farmer family. The programme then, being based on individual lands did not require much coordination among the farmers. Lack of people's participation in the programme came into focus with cases of people destroying the structures created under the programme.

The Integrated Participative Approach to watershed management took care of such loopholes in the earlier programme. It integrated the treatment of common lands and the nallas along with the treatment of private lands (cultivated and fallow) and advocated systematic treatment for all the lands. This required the involvement of the community depending on the resources of the watershed, which in turn required coordination between

Sessions

- | | | |
|----------|----------------------------|---|
| 1 | Topic | : Complexities of involving various stakeholders in a watershed programme |
| | Duration | : 1 hour |
| | Methods used | : Brainstorming, case analysis and lecture |
| | Materials required: | Chart paper and markers, case studies related to membership issues in the watershed |
| 2 | Topic | : Means of involving various stakeholders |
| | Duration | : 1 hour 30 minutes |
| | Methods used | : Brainstorming and lecture |
| | Materials required: | Chart paper and markers |
| 3 | Topic | : Features and Functions of a WDA |
| | Duration | : 30 minutes |
| | Methods used | : Brainstorming and lecture |
| | Materials required: | Chart paper and markers |

Total Duration: 3 hours

the farmers and other stakeholders in the program To facilitate this coordination, watershed institutions came into being. (Need for people's participation in a watershed programme is explained in detail in Module 2.4 'Why Participation' and emergence of watershed institutions is described in detail in *Content 2.1* of this module)

Module Aim and Objectives:

This module tries to explain the various kinds of community based institutions involved in a watershed programme and focuses on WDAs (Watershed Development Associations) - the institutions which manage the watershed programme. This module also introduces the participants to the features and functions of the WDAs.

At the end of this training module, participants will be able to:

- Identify the various institutions required in a watershed programme
- Describe the role of each of the institutions in the programme
- Describe the need for WDAs to implement and manage the programme
- Describe the features and functions of the WDA

Note: For further reading on this subject refer to "People's Institutions Managing Natural Resources in the context of a Watershed Strategy" – a MYRADA Publication.

Session: 1

Complexities of Involving Various Stakeholders in a Watershed Programme

Session Objective:

At the end of the session the participants will be able to understand the complexities of involving various stakeholders of the watershed in the watershed programme.

Session Duration: 1 hour

Methods Used: Brainstorming, case analysis and lecture

Materials Required: Chart paper and markers, case studies related to membership issues in the watershed

CONTENT

Content 1.1: Who are the Stakeholders in a Watershed Programme?

The following categories of people have a stake in the watershed and hence must be involved in any watershed programme:

►► All farmers owning land within the watershed and –

- living in the watershed
- living outside the watershed
- living outside the watershed and with lands in the watershed leased out
- living outside the watershed and owning cultivable waste lands

►► Non-land owners –

- landless poor – dependent on the watershed resources such as fodder, fuel wood, forest products, etc.
- cattle owners – dependent on the watershed for fodder
- rural artisans – dependent on the watershed for the raw materials required for their trade
- agriculture labourers – dependent on the labour generated on agricultural lands

►► Institutions/ Departments

- Forest Department, Revenue Department, Gram Panchayat, etc.

Content 1.2: Issues that Arise while Involving Different Stakeholders in the Watershed Programme

MYRADA believes that involvement of people in any kind of a programme will be successful only if they come together and form an institution which is appropriate to manage the programme.



The following issues arise when a watershed programme endeavours to involve different stakeholders (mentioned in *Content 1.1*) in order to form people's institutions to plan, budget, implement and manage the programme:

- **People owning lands inside the watershed and living outside its boundaries ('A' in Figure 1) –**

Would it be possible for them to contribute their time and resources to watershed development and management? If they become members of a watershed institution, will they be able to attend regular meetings and trainings?

- **People owning lands outside the watershed but living inside its boundaries ('B' in Figure 1) –**

They may have no interest in being members of any watershed institution because their lands are not covered in the programme.

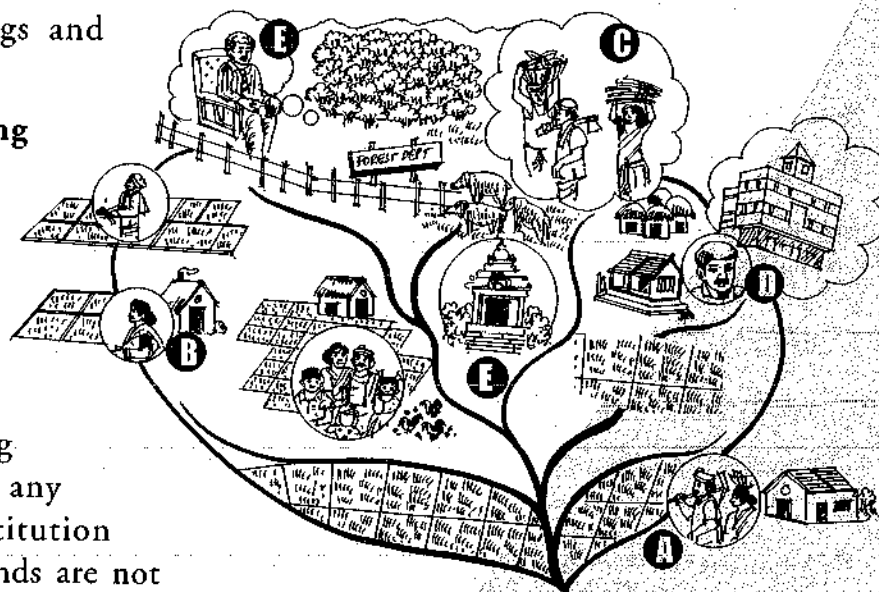


Figure 1: Complexities in involving people in a watershed programme

- **Landless people living inside the watershed dependent on its resources like fuel wood, fodder etc. for livelihood ('C' in Figure 1) –**
Being landless, they tend to be left out in the land-focussed activities of the watershed programme. How to ensure their participation?
- **People living outside the watershed, but using the watershed resources like grazing lands, tank water, etc. –** Should the programme also consider their involvement? How? When?
- **Absentee landlords with lands leased out ('D' in Figure 1) –** Who should be the member of the watershed institutions created – the landowner or the lessee? If the lessee becomes a member will s/he be in a position to take decisions regarding works and investments on the land? Will it be worthwhile to invest?
- **Absentee landlords with cultivable waste lands –** Who takes the responsibility to ensure treatment of such lands?
- **Departments such as Forest and Revenue, and institutions such as temples, schools and Panchayats ('E' in Figure 1) –** How should they be involved in the programme?

These are various issues to which solutions have often been sought locally, by discussing them with the community.

Process:

Step 1 : Brainstorm the participants about the resources of their watershed and their users.

Key Question: What are the resources in your watershed? Who are the users of these resources? Who are the people dependent on them directly or indirectly?

Record their responses as shown in the sample outcome below:

Watershed Resources	Resource Users
Agricultural land	Farmers, agriculture labours, ...
Forest land	Forest Department; poor families for fuel wood; cattle owners for fodder; timber merchants; ...
Pasture land	Cattle owners in the village; nomadic grazers; ...
Tank	Farmers for irrigation; women for domestic purposes; cattle for drinking; ...
Soil	Farmers for cultivation; brick makers; villagers and outsiders for housing; ...

Step 2 : **Brainstorming:** How are the various categories of people mentioned above affected by the watershed programme? Is it essential to involve all of them in the programme? Elicit answers.

Step 3 : Discuss the issues related to people's involvement in the watershed programme. (refer Figure 1 and Content 1.2). Present cases related to membership issues in a watershed programme. Divide participants in sub-groups and give each sub-group a case to discuss. Few examples are given below. (Facilitator can come up with his/her own cases based on field experience). Ask them to discuss the cases and present their decisions/suggestions to the plenary.

Case 1: Veerabhadrappa owns 20 acres of land in the watershed but stays in a city and hardly visits the village except during Dussera festival. Part of 20 acres has been leased out to a few landless farmers. Who should become a member of the watershed institution - Veerbhadrappa or the landless farmers? Who is in the position to take decisions with regards to works and investments on the land?

Case 2: Laxamma is quite angry about the fact that her husband, in whose name the land is registered, is made a member of the Watershed Institution. Her argument is that he is a drunkard and hardly visits his fields. She is the actual bread winner in the family. Is her argument justified?

Case 3: Ramanna has lands in the watershed but refuses to become a member of the Watershed Institution since he is a member of another watershed where he lives and holds some more land. He cannot afford time and money to be member in two Institutions. How can this case be settled?

Case 4: Fakirappa of the village runs a family business of making toys from the trees in the watershed and has no other source of income. He thinks that the watershed programme is only for land owners, and his concern is that the Watershed Institution will fence off the forests and therefore affect his livelihood. How can his interests be safeguarded?

Case 5: During rainy season, water flowing from a barren hillock in the upper reaches causes extensive damage to the fields lying below. In order to prevent the damage, the hillock has to be treated. The hillock belongs to the Forest Department. How will the Department be involved in the programme?

Step 4 : Encourage debate during the plenary presentation.

Step 5 : Brainstorming:

- What were the problems you faced while forming your WDA?
- Were there any issues related to membership in your WDA?
- Do you think all the stakeholders of your watershed are involved in your watershed programme?
- If no, how can you motivate them to get involved?

Key message: It is important to involve all the stakeholders in the watershed programme, but how this has to be done is left to the community. The Intervening Agency can suggest some options.



Stop and Check!

Are the participants able to explain the complexities of involving various stakeholders of the watershed in the watershed programme?

Session: 2



Means of Involving Various Stakeholders - Appropriate Institutions

Session Objective:

At the end of the session the participants will be able to say how various categories of stakeholders can be involved in the watershed programme.

Session Duration: 1 hour 30 minutes

Methods Used: Brainstorming and lecture

Materials Required: Chart paper and markers

CONTENT



Content 2.1: Emergence of Watershed Institutions – An overview

During the early years, all the watershed treatment programmes were managed by Government Departments. They were referred to as land treatment programmes. The

major watershed treatment measure in these programmes was treatment of major drains and contour bunding with minimum involvement of the farmer family. There were some examples of plantations on common or degraded forestlands in projects supported by Multilateral and Bilateral agencies, but again with little effort to develop a sense of ownership among the community and with no people's institutional support systems. Another major focus was to improve agricultural productivity through the introduction of hybrid seeds and fertilisers which were provided generally as grants or were heavily subsidised. The visible impact was positive but short-lived, and once these inputs were stopped, the situation reverted to pre-project days. The neglect in involving people in planning, budgeting, implementing and managing the programme was quite evident.

Learning from the past mistakes, Integrated Watershed Management with people's participation was officially introduced in watershed programmes financed by the Ministry of Rural Development Government of India in 1994 -1995. Based on the Hanumantha Rao Committee report, the Ministry advocated people's ownership of the treatment measures on all lands in the watershed. This approach required the involvement of all the people depending on the watershed's resources. This required coordination among the farmers, and between the farmers and other stakeholders of the watershed. To facilitate this coordination, watershed institutions were promoted in watershed projects sponsored by the Ministry.

Content 2.2: Different kinds of People's Institutions in a Watershed Programme

MYRADA's experience indicates that a single institution in a watershed programme cannot address the concerns of all categories of stakeholders. Hence a number of alternate institutions functional within a watershed have to be promoted. From MYRADA's experience the following institutions can help in addressing the concerns of various categories of stakeholders in the watershed:

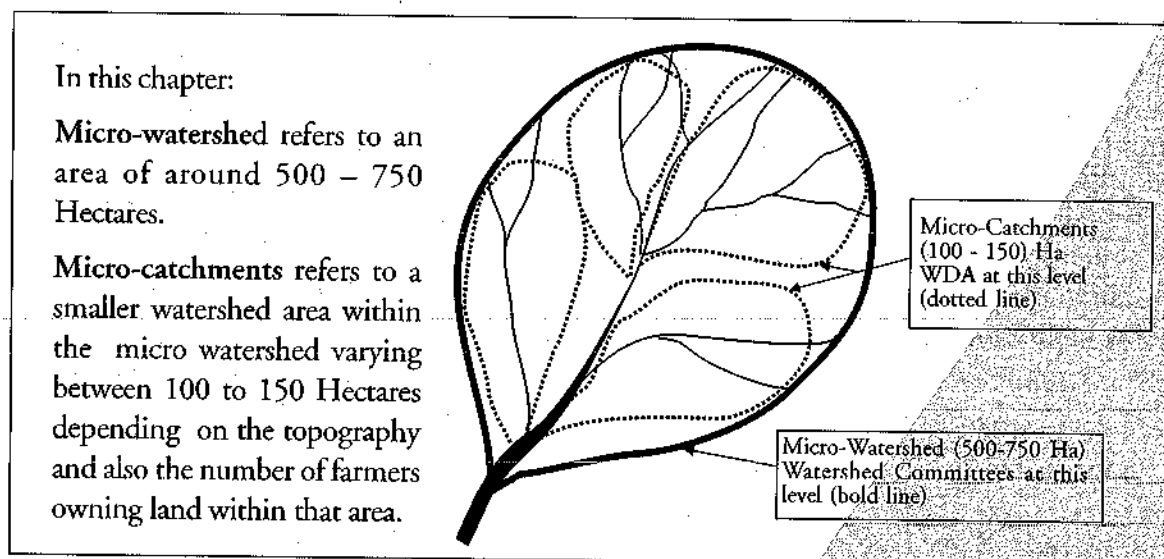
1. **Self Help Affinity Groups (SAGs)** – These are groups of people belonging to economically weaker sections of the village community and include landless poor families, small and marginal farmers, rural artisans, agriculture labour families, etc. These categories of people are dependent on the resources of the watershed in many ways as mentioned in *Content 1.1*.

It is essential that these categories of people get represented in separate institutions within the context of the watershed programme, in order to ensure that their priorities are fulfilled through the programme. As a separate group they will be able to assert their rights more effectively than as members of a group of farmers who are economically well-to-do. In order to do this, the intervening NGO has to invest in their capacity building to empower them to



influence decisions in the watershed programme. The credit provided through the SAGs will also lessen their dependence on the well-to-do.

2. **Watershed Development Associations (WDA)/ Area Groups/ User Groups** – Different programmes have different names for these groups, but they are popularly known as WDAs in projects implemented by MYRADA. WDAs are the groups comprising of all farmers owning land in a particular micro-catchment of 100-150 ha.

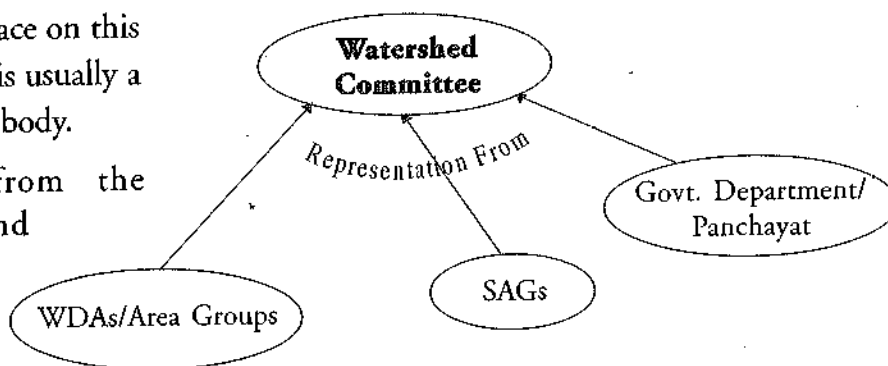


Initially it was assumed that each micro-watershed (of around 500 – 750 ha) required only one WDA. The problem with this strategy was that it was difficult to involve all the farmers/ stakeholders – numbering about 100-150 families – who depended on the watershed's resources in the programme. Effective participation of all in decision-making was impossible. Because of their large size they usually elected representatives to carry out all functions. This led to further experiments to identify a more appropriate people's institutions. MYRADA's past experience of working with village communities proved that smaller groups in which all stakeholders are members function more effectively as institutions. Hence MYRADA started forming watershed associations of farmers owning lands in small micro-catchments (100 – 150 ha) within a micro-watershed. **Around 35 farmers in a group formed an ideal size to conduct meetings and trainings, to ensure participation in decision making of all the farmers in the group. These smaller groups of farmers responsible for planning, budgeting, implementation, monitoring and management, came to be known as Watershed Development Associations (WDAs) in MYRADA's watershed projects. They receive programme funds and decide how to allocate them to members.**

3. **Watershed Committees (also called Executive Committees)** – Watershed Committees (Executive Committees) are representative bodies formed at a micro watershed level (500 – 750 ha); the members are representatives from the SAGs and the WDAs. Other institutions and Departments who have a stake in the development of the watershed such as the forest/revenue/watershed Departments, the Panchayat and at times NGOs,

etc. also find a place on this committee. This is usually a 13 – 17 member body.

Representation from the Departments and Panchayat on the committee promotes their cooperation during the implementation of the programme.



In all MYRADA watershed projects SAGs and WDAs at the 100-150 ha. level form the core of the programme management and assume the main responsibility of planning, implementing and managing the watershed programme. In many of the Government watershed projects, the 'Executive Committee' at the 500 – 750 ha level is the only recognised people's institution responsible for implementing the watershed programme. This Committee is formed before the SAGs and WDAs; as a result the members are not nominated by the SAGs and WDAs and are often selected on the basis of political party affiliation or influence.

In recent years, the Karnataka Government realised the importance of WDAs or User Groups. The KAWAD and SUJALA watershed programmes of Karnataka, have incorporated the strategy of promoting SAGs and WDAs (which they refer to as Area Groups). In SUJALA programme, it is mandatory to form SAGs and Area Groups before forming the Committee at the 500 – 750 ha. This Committee is instituted only after the SAGs and Area Groups have undergone adequate trainings and are in a position to select suitable representatives to the Committee.

Content 2.3: Watershed Committees at the 500 – 750 ha level

The present practice in Government programmes of making the Watershed Committees/ Executive Committee (EC) at the 500 – 750 ha level comprising 13 – 17 persons mainly responsible for the programme has been criticised for the following reasons: (1) In most cases this EC committee is formed before the WDAs and SAGs. As a result, the members are often selected on the basis of political influence and do not truly represent the interests of the WDAs and SAGs. (2) The ECs are representative bodies and often do not, or are not able to, give the required time to the programme (3) All funds flow through the ECs, which transfer funds directly to individual farmers; these transactions often lack transparency and can be manipulated (4) All trainings are focused to empower these handful of people to implement the programme. As a result the other people lose interest in the programme and it remains participatory only on paper.

This Executive Committee is referred to by several names, for e.g. it is called Micro Watershed Development Committee in KAWAD, the Sujala Watershed *Sangha* in SUJALA and Watershed Implementing Committee in other projects.

It is therefore advisable to form the WDAs at the Micro Catchment level (100 – 150 ha) which take the lead in the watershed programme, including receipt and management of programme funds. The number of farmers and other stakeholders at this level is around 35. Such a small body can be fully participatory where all the stakeholders are members and participate directly in all decisions. Experience indicates that these participatory bodies have greater potential for sustainability. These WDAs can elect representatives from among their groups to form the Executive Committee. The role of this Executive Committee becomes more of programme management.

Content 2.4: Role of SAGs, WDAs and the Executive Committees in a Watershed Programme

Role of SAGs	Role of WDAs	Role of Executive Committees
- To be conscious about the degraded environment and to make constant efforts to regenerate and conserve it. - To influence the programme to include the interests of the vulnerable groups and women. - To be involved in planning and implementation of programmes pertaining to common lands. - To be involved in the management and maintenance of the common property resources. - Where watershed projects also focus on upgrading the livelihoods of the poor, SAGs provide a forum to take up such programmes. (Role of SAGs in a Watershed programme is explained in detail in Module 5.4 'Equity').	- To be conscious about the degraded environment and to make constant efforts to regenerate and conserve it. - To plan the activities on private lands of the members. - To monitor the implementation of activities on private lands. - To ensure that vulnerable groups and women benefit both in the short and long terms. - To be responsible for maintenance of structures/ assets created for soil and water conservation on the private lands. - To be involved in planning and implementation of programmes pertaining to public/common lands together with Panchayath, Gramasabha, etc. - Where feasible to introduce the practice of loans for treatment measures on private lands.	- To be conscious about the degraded environment and to make constant efforts to regenerate and conserve it. - To monitor the planning and implementation of activities on private lands and common lands. - To ensure equity in watershed programme – to see that the vulnerable groups and women have a say in the programme and benefit from it. - To liaise with Panchayats, concerned departments, institutions, agencies, for mobilising financial and other resources like agricultural inputs, trainings, etc. - To integrate the treatment plans of all the WDAs in the micro watershed.

Process:

Step 1 : Lecture: Referring to *Content 2.1* explain the emergence of watershed institutions in watershed programmes.

Step 2 : Referring to the stakeholders mentioned in *Session 1*, brainstorm the participants about their involvement in the watershed programme.

Guiding Questions:

- How do you ensure the involvement of landless in the watershed programme?
- How can the landless ensure that their interests are safeguarded in the programme?

- How do you ensure the involvement and cooperation of the Department, the Panchayat, etc. in the watershed programme?
- Who is responsible for planning, implementation and maintenance of works on private lands and on common lands?
- How to ensure participation of all farmers in planning and implementation?

Step 3 : **Lecture:** Referring to *Content 2.2* explain how the various stakeholders can be involved in the watershed programme by forming appropriate institutions. Explain the role of various people's institutions using *Content 2.4*.

Step 4 : Give some examples of involvement of SAGs, WDAs and Committees in a watershed programme. (refer *Module 5.4* for examples of involvement of SAGs in the watershed programme)

Step 5 : **Lecture:** Explain the advantages of having SAGs and WDAs to manage the watershed programme as compared to the programme being implemented solely by the Executive Committees.

Stop and Check!

Are the participants able to identify the people's institutions in a watershed programme, explain how to involve various categories of stakeholders in the watershed programme and how to ensure that the interests of women and marginalized groups are protected?



Session: 3

Features and Functions of a WDA

Session Objective:

At the end of the session the participants will be able to list out essential features and functions of their WDA.

Session Duration: 30 minutes

Methods Used: Brainstorming and lecture

Materials Required: Chart paper and markers

CONTENT

Content 3.1: Features of a Good WDA

The Watershed Development Association (WDA) has the following features:

- It is a small group of around 35 stakeholders owning land and using watershed resources in the micro-catchments of around 100 – 150 ha. It comprises both men and women.



- It meets regularly and has a bank account.
- It has developed appropriate organisational and financial management systems to support its institution and the programme.
- The members have a common vision and a strategy to develop and maintain the natural resources within their catchment and they are committed to this cause.
- They are trained in all aspects related to institutional development and programme planning and implementation.
- They plan, implement and monitor the watershed programme in their micro-catchment.
- They take responsibility to maintain the structures created in their micro-catchment.
- The WDA establishes linkages with financial and research institutions, and Government departments.
- If the WDA decides to introduce a practice of loans for treatment of private lands, it has to develop the culture and supporting systems required for proper management.

Content 3.2: Functions of a WDA

The functions of a WDA can be divided into two categories:

1. Governance functions.
2. Functions that the Association is required to perform in order to successfully undertake its major objective - namely watershed development and management.

Under the first set of functions the association has to evolve rules for governance like how often to meet, how to set the agenda for the meeting, how to decide on its leaders and how/when to change them; what records to keep and who will keep them, how to raise resources at least to meet its institutional needs; its vision and strategy etc. These functions will be required to be performed as an Association even if it does not take up a watershed programme. Modules under Section 4 and Section 5 in this manual will be useful to build the capacity of the WDA to perform these institutional functions.

The second set of functions pertains to fulfilling the objectives of the watershed programme. These include

- Preparing plans for the watershed and budgeting for the same in a participatory manner (involving all the stakeholders)
- Implementing the programme as per the plans
- Monitoring the implementation of the programme
- Management of the natural resources in the watershed and of the treatment measures taken-up under the project by formulating strategies involving all the stakeholders.
- Liaisoning with the PRIs and other agencies and linking up with them for financial and agriculture related support

Process:

Step 1 : Brainstorm the participants about the features of a good WDA.

Step 2 : Supplement the discussions with *Content 3.1*

Step 3 : Brainstorm the participants about the major functions of WDA as they perceive it.

Step 4 : Supplement the discussions with the major functions of a WDA from *Content 3.2*.

Stop and Check!

Are the participants able to list out the features of a good WDA and its various functions?



[illegible]

Roles and Responsibilities of WDA Members



Module Overview:

The success of any watershed programme depends to a great extent on the way the WDA members' function as a group and on the coordination between them. For any team effort to be successful, it is very important for the team members to work in unison – this can be compared to a drama/ play, where all the actors have to play their assigned roles and conduct themselves according to the requirement of that role. Even in a WDA there are the representatives, the committee members, other members – all of them have to perform their respective roles in a coordinated manner to help the WDA reach its vision/ goal.

Module Aim and Objectives:

This module tries to create awareness among the participants about their responsibilities towards the WDA, as members, as representatives, as chairpersons and as joint signatories, and the need for them to work in unison. This module aims to create awareness of and the need for teamwork in order to achieve the targets of the WDA.

Sessions

- | | |
|----------|---|
| 1 | Topic : Team Building
Duration : 1 hour 30 minutes
Methods used : Game
Materials required : List given in Content 1.1 |
| 2 | Topic : Need for fulfilling one's responsibilities
Duration : 40 minutes
Methods used : Brainstorming, game, display of pictures
Materials required : Pictures related to the session, chart paper and markers. |
| 3 | Topic : Roles and Responsibilities of WDA members
Duration : 30 minutes
Methods used : Brainstorming, Group discussion
Materials required : Chart displaying all the functions of the WDA members, chart paper and markers. |
| 4 | Topic : Responsibilities of WDA Representatives, Chairperson and Joint Signatories.
Duration : 1 hour
Methods used : Brainstorming, sub-group and group discussions, role-play
Materials required : Chart paper and markers. |

Total Duration: 3 hours 40 minutes

At the end of this module participants will be able to:

- Explain why it is necessary to work in a team
- Explain why WDA members need to fulfil their responsibilities
- List the primary responsibilities of members, representatives, chairpersons and joint signatories of the WDA

Team Building

Session Objective:

At the end of the session the participants will be able to:

- explain why it is critical that their WDA should function as a group with shared vision
- describe what it means to function as a group

Session Duration: 1 hour 30 minutes

Methods Used: Broken Squares game (Any other game giving the same message can be played)

Materials Required: Refer to the description of the game.

CONTENT

Content 1.1: Broken Squares Game

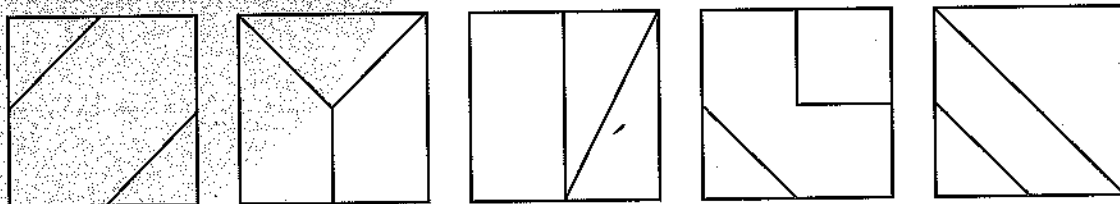
Objective of the Game: To make the participants realise the meaning of 'working in a group'

Time Required: 1 hour

A) Materials Required:

- Envelopes – number of envelopes should be the same as number of participants. (Example: if there are 40 participants, there should be 40 envelopes). The envelopes are divided into sets of five. Number of such sets should be equal to number of sub-groups formed. (Example: with 40 participants, 8 sub-groups of 5 persons each can be formed. Hence there should be 8 sets of 5 envelopes each).
- Paper – preferably a little thick. Cut into squares equal to the number of participants. Divide the squares into sets of five. Cut each square in a set according to the designs given below. You will have 15 pieces resembling the shapes in the figure, in each set.

Figure 1: Example of how the squares should be cut



- The 15 pieces are mixed and randomly put in each set of 5 envelopes. Thus each set of 5 envelopes should have a total of 15 pieces of squares (an average of 3 pieces per envelope - few envelopes can contain more than 3 and others can have less than 3 pieces)
- The pieces in one envelope should not belong to the same square.

B) Process of the Game:

1. Form groups of five persons and ask them to be seated in a circle. (As far as possible each group should have representation from all categories of stakeholders present among the participants).
2. Appoint one observer per group (this should be in addition to the 5 persons who are involved in the game).
3. Give each group a set of 5 envelopes to be distributed - one per member. Ask each group to complete the 5 squares.
4. Fix a time limit to complete the squares. (15 minutes will be sufficient)
5. Instruct the participants on the points given below (*refer section C below*).
6. Instruct the observers of each group to ensure that the rules are followed.
7. Observe the behaviour of the participants.
8. Analyse the game as given in para E.

C) Instructions for Participants:

1. Participants must open the envelopes and start forming their squares only after a signal is given.
2. At the end of the allotted time, each participant should have a square ready.
3. Each square must be made up of 3 pieces.
4. All the complete squares should be of the same size.
5. Participants are not permitted to speak or to signal each other during the activity.
6. Participants are permitted to borrow pieces or give out pieces to others in the group to complete the squares.
7. A participant can only give a piece of paper to another directly. He/she is not allowed to place the piece in the centre so that any one could take it.
8. A participant is permitted to give away all his/her pieces, or his/her whole square.
9. All the participants have to make the squares for themselves. One cannot make it for the other.

D) Instructions for Observers:

Observe the following:

1. How did the participants begin the game?
2. How long were they busy with their own pieces?

3. Who were the first ones to begin looking around?
4. Were there any persons who only wanted to receive, yet never gave?
5. Was there any one who kept the pieces they wanted and gave away those they did not want?
6. Was their giving purposeful; specific pieces to those who needed them or just at random?
7. Who was willing to give away the pieces?
8. Did anyone finish his/her square and then withdraw from the group activity?
9. Did anyone after finishing his/her square, try to help out others?
10. Were there people who were self-proclaimed leaders in the group and tried to complete all the 5 squares for the entire group single-handed?
11. Was there anyone who could not complete his/her square, yet kept on rearranging his/her own pieces, looking for an alternative without trying to give his/her pieces away.
12. How many people were actively engaged in putting pieces together?
13. Was there any turning point at which the group began to co-operate?
14. Did anyone violate the rules of not talking or signalling?

E) Line of Analysis:

Probe the participants with questions based on your observations on group behaviour during the game, and link the situation during the game with real life situations in the WDA. Examples are given below:

1. Some had more pieces, some less, yet all squares were eventually of the same size. This is also very true with life. Some have more than required resources and others don't even have the basic resources for survival. Do you think this holds true in your village community? Can this be overcome by sharing of the resources by the resource-rich as was done in the game to complete the squares?
2. In the game you could make out who required what pieces to complete the square and you passed on the squares without being asked for it. Life demands that you sometimes give without being asked. People who have more resources need to help people with fewer resources.
3. To achieve an assigned task requires lot of coordination among the team members. The squares in each group could not have been completed if there was no coordination. Similarly in order to achieve the objectives of the watershed programme, all WDA members should work as a team putting in coordinated efforts.
4. If a single person in the group is not able to complete his/ her square, the whole group loses. Similarly, if the WDA fails to involve all the members in implementing the watershed programme, the entire WDA suffers.

5. In some group only one person took the lead and completed all the squares for the group. This did not help the others as they did not understand what was happening and finally they lost interest. Similarly, in the WDA if only the leader/ representative takes the entire responsibility of implementing the programme in his/ her hands, the WDA might slowly collapse.

Underlying message:

In order to achieve the objectives of the watershed programme the WDA has to work as a team and share the responsibilities among various members.

Process:

Step 1 : Play the game and analyse it according to the instructions given in *Content 1.1*.

Step 2 : Sum up the session with the message given in the content.



Stop and Check!

Are the participants able to understand the importance and need for teamwork and collective action in their WDA?

Session: 2



Need for Fulfilling One's Responsibilities

Session Objectives:

At the end of this session participants will be able to state why each member of the WDA needs to fulfill his/her responsibility as part of the team.

Session Duration: 40 minutes

Methods Used: Brainstorming, game, display of pictures

Materials Required: Pictures related to the session (examples given below); chart paper and markers

CONTENT



Content 2.1: Need for Fulfilling One's Responsibilities

All members of a family or an institution have different roles to play. In a family, the role of the mother is different from that of the father; in an organization/ institution, the role of the president/representative/officer is different from other members. Since every individual is part of a family, of society and of an institution, every individual has many

Figure 2: Role of members in a family

In a family, each member's role is different – children have to respect their elders and study well, husband/wife manage the household and see to the needs of the family, grandparents take care of the grandchildren, etc.



Figure 3: Multiple roles of an individual

Every individual has multiple roles to play – a mother is also a wife and could be the breadwinner at the same time.



roles to play. In each of the roles, his/her responsibilities are different.

In an institution, it is the joint responsibility of all the members to see that the institution achieves its set goal. This can only be possible if each individual in the institution plays his/her part well. For an organization to function and achieve its objective, it is necessary that each member perform his/her prescribed or chosen role. For example, only if all the actors in a play

perform their respective roles will the play be a success; only if the players in a football team coordinate their moves and put in their best, can the team win.

Process:

Step 1 : Display the pictures (Figures 2 and 3) given in Content 2.1. Brainstorm the participants in order to reinforce the understanding of responsibilities an individual has as a part of any institution, be it a family, a society or a WDA.

Leading Questions:

- Who all are the members of a family?
- What is each member's role as a part of the family?
- What happens if the family members do not perform their duties?
- What are the responsibilities of the person shown in Figure 3 in different roles?
- What happens if the person does not perform his/her duties?

Step 2 : Elicit answers for the above and play the 'War game':

War Game:

Situation: A traditional game is played between 5 villages every year. Every village is supposed to select 5 members to fight against other villages. The winning team is awarded a prize.

How to proceed: Divide participants into groups of 5. Each group represents a village. Ask each of the groups to identify themselves with a village name. If there are more participants select few observers.

Rules of the Game: The first person in a team starting the attack says "one", the second "two", the third "three", the fourth calls out "attack" and the fifth calls out the name of the village to be attacked. The village whose name is called out prepares itself to attack another village in a similar manner, i.e. the first person says, "one", the second "two" and so on. The game goes on for 15 to 20 minutes. Once the roles are fixed they must not change. For instance if the second person says anything but "two" the whole team gets out. There must be no delay in attacking, once the name of the village is called out. If a village's name is called and that team fails to respond immediately, the team is declared "out".

Message: If one person in the team does not fulfil his/her responsibilities, it affects the performance of the entire team.

Step 3 : Brainstorm the participants about their learnings from the game. Show them *Figures 4, 5 and 6.*

Leading questions:

- What do you see in the pictures?
- How can such events be organised?
- When does a team win a match?

Step 4 : Elicit answers for the above and sum up by stressing the importance for all WDA members to carry out their responsibilities to achieve a common goal.

Figure 4: Picture of a village jatha



Some families take responsibility for mass cooking, some for decoration. ... This is how large village fairs are organised.

Figure 5: Picture of matki phod

A popular game played during *Janamashtami* festival where a human pyramid is made to break a pot hung high up in the air.



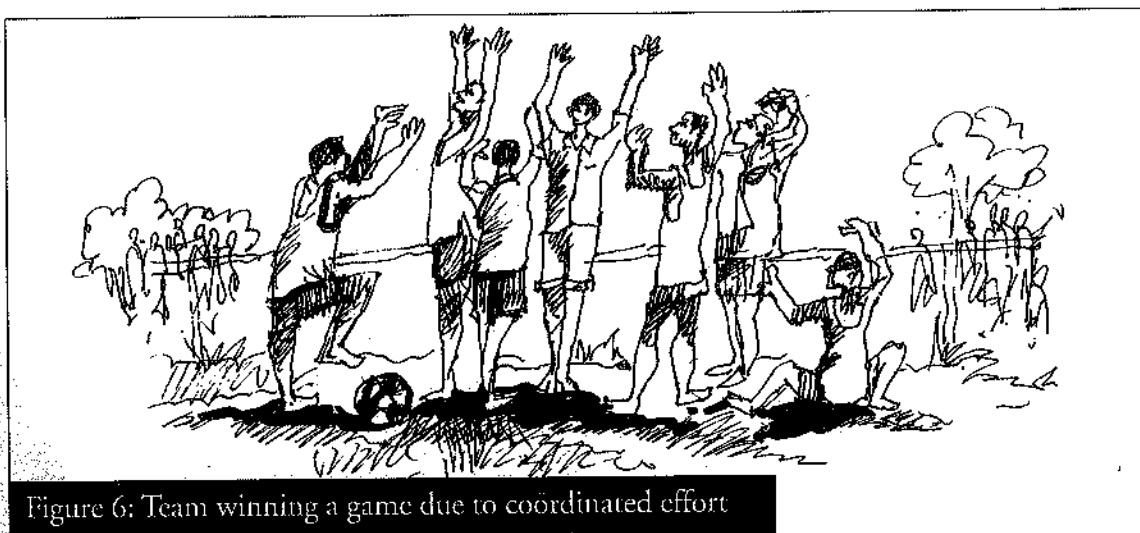


Figure 6: Team winning a game due to coordinated effort

Stop and Check!

Are the participants able to state why every member of the WDA needs to fulfil his/her responsibility being a part of the WDA?



Session: 3

Roles and Responsibilities of WDA Members



Session Objective:

At the end of this session the participants should be able to list out the responsibilities of WDA members.

This session provides examples of what most WDAs in MYRADA watershed projects have decided in regard to the responsibilities of members. This is revised from time to time as the WDA progresses.

Session Duration: 30 minutes

Methods Used: Brainstorming, group discussion

Materials Required: Chart displaying all the functions of the WDA members, chart paper and markers



CONTENT

Content 3.1: Roles and Responsibilities of WDA Members

Responsibilities of WDA Members:	
1. Meetings and Group Functioning related: • To attend the WDA meetings regularly • To participate actively in the proceedings of the meeting • To provide suggestions during discussions so that the WDA may arrive at fair decisions. • To ensure rotation of representatives every year • To maintain discipline and unity in the WDA • To apply & accept sanctions for breaking rules • Others as decided by WDA	2. Private Land related: • To participate in planning for individual lands • To ensure that all activities on one's land are carried out as per plan and on time • To invest on the treatment measures as required by the project or as decided by the WDA • To ensure the quality of work carried out on each field. • To adopt appropriate agricultural conservation and enhancement measures and water management strategies • Others as decided by the WDA
3. Common Land related: • To participate in planning for common lands • To ensure the participation of the landless poor and other families using the common property resources • To ensure that activities planned for the common land are completed as per agreed plan. • To ensure management and maintenance of assets created through the watershed programme • To ensure that products of common land (water, fuel, fodder, fruit, etc.) are shared equitably among various users. • Others as decided by WDA	4. Social and Environment Change related: • To participate in any village development activity- particularly in health, education and environment • To attend all training programmes and make use of the learning • To take the lead in initiatives for social change related to class, caste, gender, etc. • Others as decided by WDA

5. Finance related: • To follow the rules laid down by the WDA related to common fund, investments, loans, etc. • To ensure that all members utilize money appropriately and repay loans in time • To keep track of one's individual savings and loans record • To invest in the watershed activities as decided by the WDA • Others as decided by WDA	6. Cash Management and Documentation related: • To conduct cash transactions only during the meeting • To bring passbooks for updating during the WDA meeting • To ensure that cash inflow to the WDA is remitted to the bank at the earliest • To ensure timely updating of all books and records • To ensure that audit takes place regularly • Others as decided by the WDA
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Process:

Step 1 : **Brainstorm** the participants to find out their understanding about the responsibilities of the WDA members.

Leading Question: What do you think are the responsibilities of an individual as a member of the WDA?

Step 2: Supplement their replies with the list of responsibilities mentioned in *Content 3.1*.

Facilitator's Note:

- Display the list of responsibilities evolved along with the participants on a chart.
- Ask one of the participants to note the list in the training register of the WDA. This can be read out during their monthly meetings to reinforce the understanding of these responsibilities by all.
- Communicate the message that roles and responsibilities change as the WDA progresses.



Stop and Check!

Are the participants able to list out the responsibilities of WDA members related to various roles/functions of the WDA?



Responsibilities of WDA Representatives, Chairpersons and Joint Signatories

Session Objectives:

At the end of this session the participants will be able to state the responsibilities of representatives, chairpersons and joint signatories of WDA.

Session Duration: 1 hour

Methods Used: Brainstorming, sub-group and group discussions, role-play.

Materials Required: Chart paper and markers.

CONTENT



Content 4.1: Responsibilities of WDA Representatives

WDA Representatives can be compared to people's representative like Panchayat members - wherever they go as representatives, they speak on behalf of the people of their area. Often WDA representatives have multiple responsibilities. Apart from the responsibilities as members (as mentioned in Session 3), they have the following additional responsibilities related particularly to the WDA's functioning:

Responsibilities of WDA Representatives	
1. Meeting and Group Functioning Related: • To ensure that meetings are conducted regularly as planned • To ensure that all members attend the meetings regularly • To be present at the meeting venue ahead of time and get the venue ready • To facilitate effective participation by all in decision making • To ensure that decisions taken are fair and do justice to all members particularly the marginalized and women • To ensure that sanctions decided by the group are imposed • Others as decided by the WDA	2. Interpersonal Relationships Related: • To facilitate a good working relationship between WDA members • To resolve differences/ conflicts among members in an amicable manner • To motivate members to actively participate in the WDA's activities • To co-ordinate the activities of the various committees if there are any in the WDA • Others as decided by the WDA

Contd.. Responsibilities of WDA Representatives	
3. External Relationships Related: - To initiate linkages between the WDA and other government, research and private institutions - To assist other members, especially committee members to establish links with appropriate institutions - Others as decided by the WDA	5. Watershed Programme Related: - To motivate all members to actively participate in watershed activities - To involve all members in planning - To ensure involvement of all stakeholders (especially the poor) while planning for common property resources - To ensure that all members complete activities on their land as per plan - To ensure that members invest/contribute for development activities on their land as per plan - To initiate activities in common land and take part in their maintenance - To ensure equitable distribution of benefits from common land - To motivate members to follow best agriculture practices, to adopt integrated crop management and water management practices - To monitor the activities of the committees - Others as decided by the WDA
4. Capacity Building and Information Sharing related: - To share the information gathered during meetings and trainings with other members - To facilitate the WDA to have a shared vision - To steer the WDA towards achieving its vision - To motivate all members to participate in the WDA's activities and trainings - To ensure that information from various committees is shared during WDA meetings - To train other members to succeed them as representatives at the end of their term - Others as decided by the WDA	
6. Documentation Related: - To undertake training in maintenance of books and records - To record attendance at meetings - To ensure updating of all books before the end of the meeting - To ensure that all books and documents are kept safely - To monitor the book writers - To frequently review the WDA's plan at meetings and ensure that if there are any variations from the plan, they are recorded in the minutes book with valid reasons	7. Finance Related: - To mobilize community contribution as per the requirement of the programme and as decided in the meetings - To prepare and present the Monthly Financial Statement before the WDA members - To monitor the financial affairs of the WDA including maintenance of records, audit and funds management - To ensure proper utilization of funds in the WDA - To ensure timely repayment of loans

Contd..	Responsibilities of WDA Representatives
• To ensure that the formats related to process and progress monitoring of the project are timely updated • Others as decided by the WDA	• To frequently review the WDA's plans and ensure that costs do not exceed the plans • To ensure that receipts are issued for any money received into the WDA • To ensure regular audit of the WDA's finances • To mobilize resources from the government and other financial institutions • Others as decided by the WDA

Content 4.2: Responsibilities of a Chairperson

At each meeting, the WDA selects a member to chair the meeting. This helps to build the confidence and skills of all members. Her/His responsibilities are:

- To preside over the meeting
- To facilitate setting the agenda for the meeting
- To facilitate discussions during the meeting and ensure that all members participate in the discussion and decision making
- To handle cash transactions for the day and remit the amount to the bank
- To ensure that all proceedings and transactions are recorded in appropriate books
- Others as decided by the WDA

It is advisable to appoint a new chairperson for every meeting. This ensures that everybody acquires the skills required for a good moderator.

Content 4.3: Responsibilities of Joint Signatories

The representatives are the joint signatories of the WDA's account. At least one of them should be present during the meetings. In case both are absent for some reason, they must verify decisions taken at the WDA before signing the cheques later on.

- While signing cheques, the signatories must ensure that a decision authorising the payment has been taken and minuted in the WDA's minutes book
- Others as decided by the WDA

Process:

Step 1 : Sub-group Discussion: Divide participants into 3 or 4 groups. Ensure that each group has at least one literate member. Ask them to discuss what the responsibilities of WDA representative are and record the points on a chart.

Step 2 : Ask each of the groups to make a presentation.

Step 3 : Consolidate the results and supplement information if required from *Content 4.1*.

Step 4 : **Brainstorm** the participants about the responsibilities of a Chairperson and Joint signatories.

Step 5 : Elicit the answers for the above. Supplement information if required from the *Content 4.2 & 4.3*.

Step 6 : Ask the participants to **conduct a 'mock meeting'** - emphasising the role of representatives, the chairperson and the joint signatories.

Step 7 : **Analyse their roles** at the end of the meeting and give them feedback with respect to the roles played.

Stop and Check!

Are the participants able to list out the responsibilities of WDA representatives, chairperson and joint signatories?



[illegible]

How to Conduct Meetings



Module Overview:

Building a team is a long process. It requires supporting organisational and management systems which are transparent, participative and able to resolve conflict when it occurs. The basis on which these systems are built is the meeting. The success or failure of a WDA to a large extent depends on how the meetings are conducted. It is therefore important for the members of the WDA to conduct meetings in a way that promotes transparency, and participation of all; the meeting should also emerge as a forum for conflict resolution and to design and adopt new initiatives to fulfil the WDA's Vision and Mission.

Conducting a meeting and bringing it to some meaningful conclusion is an art which requires a great deal of tact in handling various situations that arise during the meeting. Many meetings seem to continue for ages and still are inconclusive. This module attempts to help the WDA members to acquire effective meeting skills in order to conduct meaningful meetings. This module provides a start; the performance of members at meetings must be reviewed regularly and Sessions in this module repeated when required.

Module Aim and Objectives:

At the end of this module participants will be able to:

- Understand why it is necessary to meet regularly
- List the necessary conditions for conducting a WDA meeting
- Describe the procedures to be followed while conducting a WDA meeting

Sessions

1	Topic	: What is a Meeting?
	Duration	: 30 minutes
	Methods used	: Brainstorming and group discussion
	Materials required	: Chart paper, markers and pictures
2	Topic	: The importance of regular meetings
	Duration	: 30 minutes
	Methods used	: Brainstorming and group discussion
	Materials required	: Chart paper and markers
3	Topic	: Necessary conditions for conducting meetings
	Duration	: 30 minutes
	Methods used	: Group discussion, display of pictures
	Materials required	: Chart paper, markers and pictures
4	Topic	: How to conduct a WDA Meeting
	Duration	: 1 hour 30 minutes
	Methods used	: Role-play, fish bowl exercise and group discussion
	Materials required	: Passbook, money (or "game" currency), minutes book, savings and loan ledgers, pen, paper, chart paper and markers

Total Duration: 3 hours

What is a Meeting?

Session Objective:

At the end of the session the participants must be able to differentiate between meeting and gathering.

Session Duration: 30 minutes

Methods Used: Brainstorming and group discussion

Materials Required: Chart paper, markers and pictures



CONTENT

Content 1.1: Difference between a Meeting and a Gathering

A meeting can be defined as coming together of members/ people with a specific agenda, at a particular place and time. Example: Gram Panchayat meeting, WDA meetings, weekly meetings of SAGs, etc. The meeting provides a platform for meaningful interaction and helps the WDA to perform its functions. It should be held in a place where all are free to come. The seating arrangements in a meeting can often promote or reduce participation (e.g. Fig. 3 and 4).

A gathering can be defined as an informal get-together of people - without any specific agenda or any prior notice. Example: gathering of people at a bus-stand or a tea stall or at the village square, etc.

Process:

Step 1 : Show the participants pictures of gatherings and meetings given below. (any other picture if available can be used).

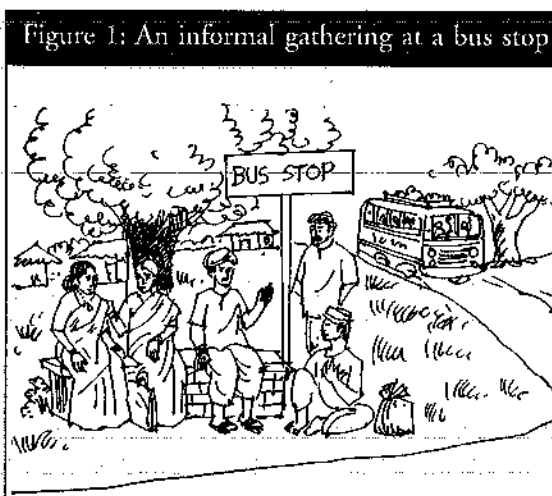


Figure 1: An informal gathering at a bus stop

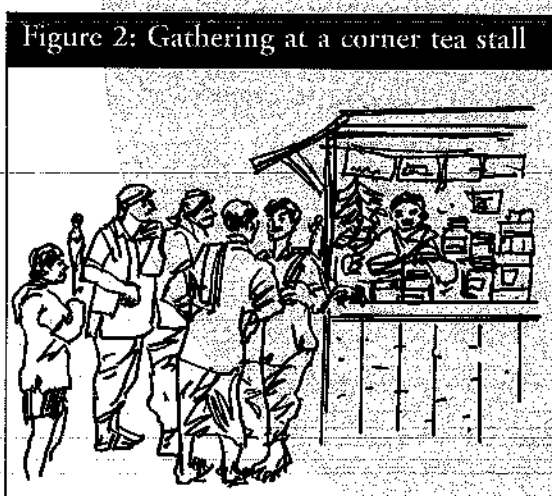


Figure 2: Gathering at a corner tea stall

Figure 3: Gram Panchayat Meeting

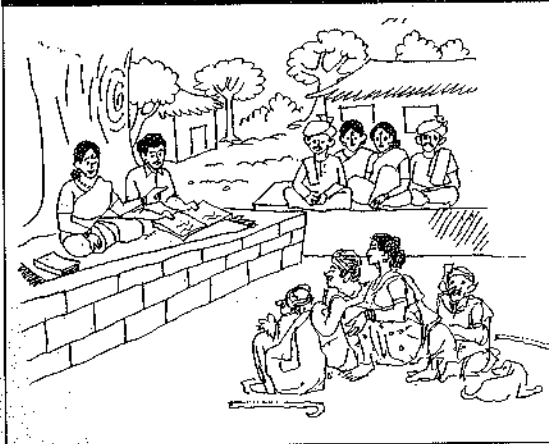


Figure 4: SAG meeting



Step 2 : Brainstorming: Probe the participants about what they understand from the pictures.

Key Questions:

What are people doing in the pictures? How are they seated? Why are they gathered together at one place? How are they interacting? What is the difference between a gathering and a meeting?

Step 3 : Sum up using Content 1.1.

Stop and Check:

Are the participants able to describe a meeting? Are they able to point out the difference between a 'gathering' and a 'meeting'?



Session: 2

Importance of Regular Meetings

Session Objective:

At the end of the session the participants must be able to state the importance of conducting WDA meetings regularly.

Session Duration: 30 minutes

Methods Used: Brainstorming and group discussion

Materials Required: Chart paper and markers



A critical factor here relates to: Who calls for the meeting. In some programmes where Government has a key role to play, it is often the practice that meetings are held only when a Government officer is present. In reality it is the Government Officer who is given the responsibility of calling the meeting – only when she/he is available are meetings held. In such cases, people do not have ownership of the meeting. The consequence of giving the responsibility to the Government Officers to call a meeting or requiring that she/he be present is that, such meetings are never regular. It is therefore important that, from the beginning people decide to call for the meetings themselves. In some projects the Government Officer's presence is required to sign cheques for payment. In such cases the regular meetings of the WDA should still continue even if the officer is not available. Some WDAs have arrived at a compromise – they meet weekly especially in the initial period, but put matters related to finance on the agenda only every fortnight. This makes it easier for the Government Official to attend. If meetings are called only when there is an agenda, then it is noticed that a) they are very irregular; b) they are called only when the leaders have an issue to discuss.



CONTENT

Content 2.1: Why are Regular Meetings Essential?

Regular meetings are important because it:

- Provides a regular and frequent opportunity for WDA members to interact with each other to discuss issues related to watershed and other matters
- Inculcates discipline and a habit
- It is easier for the people to remember the meeting day or date if it is held regularly on fixed days
- Provides scope for regular financial transactions, such as saving, contribution, loan and interest repayment
- Allow for regular monitoring and follow-up of the programme
- Allow for regular monitoring and follow-up of loan repayment or collection of farmer's share of investment
- Provide greater opportunities for the capacity building of the members and for developing their communication and discussion skills
- Provides a forum for identifying, discussing and getting involved in community issues which arise regularly
- Provides a formal forum for conflict resolution

Preferably these meetings should be held on weekly basis since studies indicate that successful WDAs have all met weekly in the initial years of formation.

Process:

Step 1 : Brainstorm the participants about the consequences of having regular WDA meetings.

Key Questions:

How often should the WDA meet – weekly, fortnightly, monthly or as and when there is some agenda? Why are regular meetings important? What might happen if meetings are held less frequently?

Step 2 : Synthesize the learnings from the discussion to conclude that it is always better to have regular meetings on a fixed day or date and time. (*refer Content 2.1.*)

Step 3 : **Group discussion:** Lead the participants to fixing the frequency of their meeting.

Guiding Question:

What frequency of meetings do you think will be ideal for your WDA – weekly, fortnightly or monthly?

Step 4 : Allow the group to discuss and debate. Once they arrive at a decision, ask them to record it.

Stop and Check!

Are the participants able to explain why regular meetings are important?

**Session: 3****Necessary Conditions for Conducting a Meeting****Session Objective:**

At the end of the session the participants will be able to list out the necessary conditions for conducting the meetings.

Session Duration: 30 minutes

Methods Used: Group discussion, display of pictures

Materials Required: Chart paper, markers and pictures

CONTENT**Content 3.1: Necessary Conditions for Conducting a Meeting**

The following are necessary conditions for conducting a meeting:

- A place for the meeting, acceptable and accessible to all.
- Lighting facility, in case the meeting is held at night



- A fixed time when people will meet
- Mats or durries to sit on
- A trunk or box to keep all the books of accounts, which may also be used as a make shift table by the book keeper.
- Presence of all the members on time.
- Presence of all the representatives on time.
- Books and documents, pens and book writer.
- An agenda to be discussed in the meeting. (This must be drawn up by brainstorming the members present at the beginning of the meeting).
- A Chairperson to be selected at the beginning of the meeting.

Process:

Step 1 : Brainstorm the participants about the essential conditions for conducting meetings.

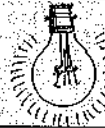
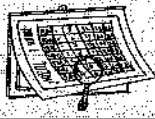
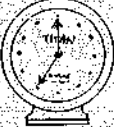
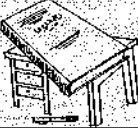
Key Questions:

What are the minimum things required to start a meeting?

Use pictures in *Figure 5* to facilitate discussion.

Step 2 : Synthesise the learnings from the discussion and supplement if required using the points given in *Content 3.1*.

Figure 5: Pictures of essential conditions required for the meeting.

1. Fixed place accessible to all.	
2. Lighting Facility	
3. Fixed day and date	
4. Fixed time	
5. Presence of all members and representatives	
6. Books and documents	



Stop and Check!

Are the participants able to list the necessary conditions for conducting a WDA meeting?



How to Conduct a WDA Meeting

Session Objective:

At the end of the session the participants will be able to describe the various steps to be taken to ensure that meetings are orderly and are brought to a meaningful conclusion.

Session Duration: 1 hour 30 minutes

Methods Used: Role-play, fish bowl exercise and group discussion

Materials Required: Passbook, money (or game currency), minutes book, savings and loan ledgers, pen, paper, chart paper and markers.

CONTENT

Content 4.1: Process to be followed while Conducting Meetings

The following process should be followed while conducting a meeting:

1. Sit in a circle
2. Sing a prayer or group song - this helps in focussing the group attention on the meeting
3. Select a chairperson (for role of the chairperson refer *Module 4.2, Content 4.2*)
4. Welcome address. (Also welcome any visitors for the day, but ensure that they are sitting outside the circle and do not disturb the meeting. They are welcome to ask questions at the end of the meeting.)
5. Record the attendance
6. Set the agenda in a participatory manner
7. Review the previous meeting's minutes
8. Maintain discipline - group members should ensure that rules and regulations are followed throughout the meeting. Sanctions can be imposed for breaking rules
9. Ensure that all issues on the agenda are discussed
10. Ensure that all members participate in the decision-making
11. Record transactions if any in respective books
12. Record proceedings during the meeting in the minutes book and read them out to all members at the end of the meeting
13. All members must sign the minutes book at the end of the meeting

14. Give ample time for discussion of local issues.

15. Formal Closure

Process:

Step 1 : Conduct Role-plays to demonstrate effective meeting procedures.



Examples of some issues to be given for discussion during Role play:

1. "Why follow a circular seating arrangement"? Ask two participants to sit back to back, or all the participants to sit in one straight line and try and discuss a certain topic. Is this effective?
2. "Why fix an agenda"? Ask the participants to start discussions, without an agenda. What happens to the discussion?
3. "Why nominate a chairperson"? Start the meeting without a chairperson. What happens to the meeting? Who collects the money? Who moderates?

NOTE: Materials listed in 'Materials required' can be provided during the role plays. You may conduct role-plays to demonstrate all the procedures listed in *Content 4.1*.

Step 2 : Analyse the role play taking participants views on the rules demonstrated for effective meetings.

Step 3 : **Lecture:** Inform the participants of the process to be followed during a meeting.

Step 4 : Conduct a Model Meeting using the **Fish Bowl Exercise**.

How to conduct a fish bowl exercise:

1. More than half the participants are chosen to participate in a role-play.
2. The rest of the participants are chosen as observers – the observers are not permitted to participate in the role-play.
3. The participants in the role-play conduct a mock meeting following all the necessary protocol.
4. At the end of the meeting, ask the observers to analyse what went right and what went wrong during the meeting. The participants may repeat the exercise if they want to and if time permits.

The fish bowl exercise should be allowed to evolve without any intervention by the facilitator.



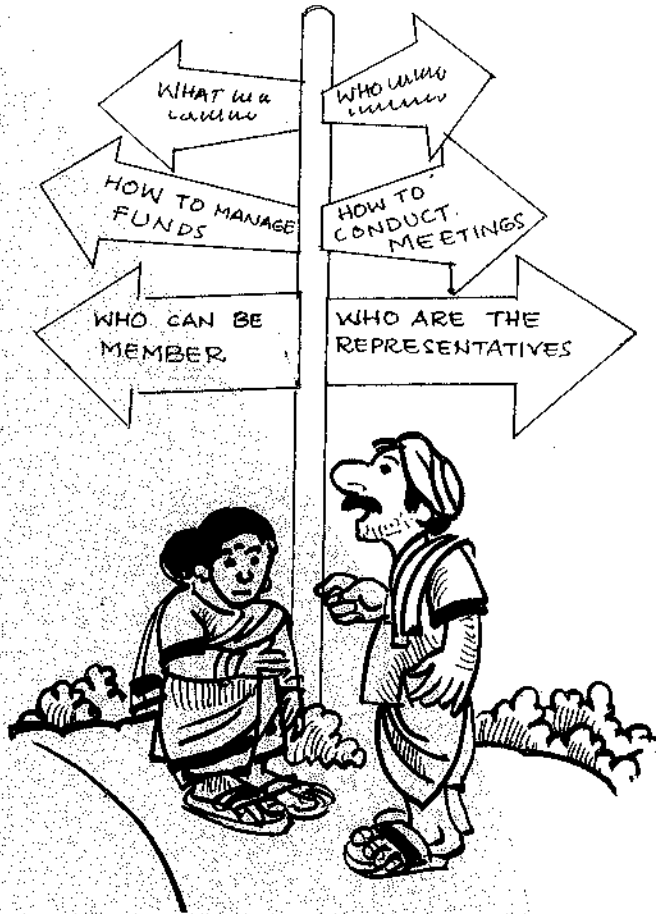
Stop and Check!

Are the participants able to describe the steps involved in conducting a WDA meeting?

[illegible][illegible]

This image shows a blank sheet of white paper with horizontal blue or grey ruling lines. On the right side, there is a large, triangular-shaped area filled with a dense pattern of small dots or a fine grid, creating a shaded effect. The rest of the page is plain white with no other markings or text.

Rules and Regulations in a WDA



Module Overview:

An organisation without rules and regulations is like a ship without a rudder - the ship sets out to reach a destination, but has no way to maintain its course without a rudder. This is what happens to an institution which does not have rules to give direction to the group activities and to ensure discipline. Sometimes the rules and regulations exist, but the level of compliance is low. This again is a dangerous situation, which might lead to members acting according to their own will and fancy. In order that all the members consider it their moral duty to abide by these rules, it is essential that they are all involved in framing these rules. It is also essential that the group frames and imposes sanctions for disobeying the rules.

ಓಡುವ ನೋಡನ್ನು ನಡೆಯುವಂತೆ ಮಾಡಿ, ಮರಳಿ ಮುಟ್ಟಿಗೆ ಜೀವ ನೀಡಿ.

Sessions

1	Topic	: Need for Rules and Regulations
	Duration	: 30 minutes
	Methods used	: Display of pictures, group discussion, games
	Materials required:	Pictures, chart paper and markers, a box with double the number of marbles as the number of participants
2	Topic	: Framing and reviewing WDA rules and regulations
	Duration	: 1 hour 30 minutes
	Methods used	: Group and sub-group discussion
	Materials required:	Chart paper and markers
Total Duration: 2 hours		

Module Aim and Objectives:

The purpose of this module is to assist the WDA members to develop their own rules and regulations in order to function efficiently and achieve their goal.

At the end of this training module, participants will be able to:

- Explain the need for rules and regulations in their WDA
- Frame rules for efficient functioning of their WDA.

Need for Rules and Regulations in a WDA

Session Objective:

At the end of this session the participants will be able to state the importance of rules and regulations for proper functioning of their WDA

Session Duration: 30 minutes

Methods Used: Display of pictures, group discussion, games

Materials Required: Pictures, a box with double the number of marbles as the participants, chart paper and markers

CONTENT

Content 1.1: Need for Rules and Regulations in an Institution

Rules and regulations of a WDA govern the actions of the members. They are required for the smooth and efficient functioning of any institution in a disciplined manner. Rules and regulations are like the fence that protects the field. It is not enough to water the field, weed it and apply compost. This will definitely yield a good crop; but if left unprotected it might get destroyed by animals or thieves. Similarly, however noteworthy an institution's vision and strategy maybe, if it does not have rules to govern its functioning and to give direction, it will soon collapse.

The chances of continuous adherence to the rules are greater, if they have been developed involving all the members.

Figure 1: Examples of Rules & Regulations

People line up to collect water from a tanker



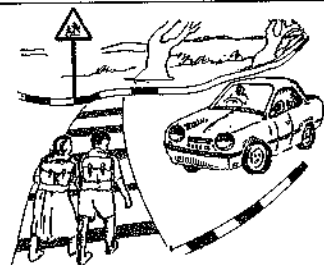
Bell ringing at a school



People queue up in front of fair price shop



Traffic signal, traffic rules



Process:

Step 1 : Brainstorming – What do you mean by rules and regulations? Why are rules and regulations needed in a WDA?

Elicit answers.

Step 2 : Using the pictures in *Figure 1*, facilitate the discussion by giving examples of rules enforced in society.

Leading questions:

- How do the people behave when a water tanker comes to the village?
- What would happen if people do not form a queue to get water from the tanker?
- Why is it essential to have fixed timings to go to school or office?
- Why are traffic rules essential? What happens when we break these rules?

Step 3 : Play the following Game: Place a box full of small marbles in the centre of the room. As soon as the facilitator sounds a whistle, all participants should come to the box and pick up as many marbles as they can. Observe what happens when the whistle is sounded. After all the marbles are taken, see who gets the maximum. Analyse the behaviour of the group:

- Did everyone get the same number of marbles? Were there people who didn't get any marbles?
- Did everyone rush to the box?
- Were there some people who never reached the box?

Collect the marbles and put them back into the box. Frame a rule for picking the marbles in the next round of the game (ask participants to form a queue and take two marbles each when they reach the box). Observe what happens.

- Did everyone get a chance to reach the box?
- Did everyone get marbles?
- Which is a better system?

Step 4 : Sum up using *Content 1.1*

Stop and Check!

Are the participants able to state the importance of Rules in a WDA?



Framing and Reviewing WDA Rules and Regulations

Session Objective:

At the end of the session the participants will frame and state the rules for their WDA. In case of existing rules, the participants will be able to review the rules and modify them if required. They will also frame sanctions for violating the rules.

Session Duration: 1 hour 30 minutes

Methods Used: Group and sub-group discussion

Materials Required: Chart paper and markers

CONTENT



Content 2.1: Framing the rules

Members frame rules for smooth functioning of their organisation. It is essential that all the members get involved in framing the rules. This ensures that the rules are fair and just, and are not favouring any single individual or a section of the WDA. If the reason behind framing of the rules is understood by the members, there are less chances of the rules being violated. It is also essential to frame sanctions for violating the rules.

In a development process, no rules can be cast in iron. Hence, space must be provided for change as the programme progresses.

Content 2.2: Scope of the Rules

In order to function smoothly, a WDA needs to frame rules related to the following:

1. **Membership:** who should be the members of the WDA; what should be the size of the WDA; what should be the policy to involve all landowners; what should be the policy to involve other stakeholders – especially the women and the landless; ...
2. **Meeting:** how frequently should the WDA meet; where and at what time should it meet; what is the minimum attendance required for the meeting; ...

Points to be kept in mind while framing rules:

- Are the rules fair/just to everyone in the WDA and seen to be so by the members?
- Do they hurt anyone in the WDA or any section of the community to which the WDA belongs?
- Do the rules ensure participation/representation of all stakeholders?
- Was everyone involved in framing the rules?
- Has everyone understood the purpose behind framing rules?
- Are the penalties for breaking the rules developed and accepted by all?

3. **Training:** who attends the trainings; how is the learning from the training shared;
4. **Finance:** what should be the norms for contribution; what should be the policy for lending and repayment within WDA; what should be the norms for common fund and programme fund utilization; who maintains the books and how; when should the auditing be done and by whom; ...
5. **Responsibility sharing:** what are the responsibilities of various members, representatives, chairperson etc. in a WDA; ...
6. **Watershed Programme related:** whose lands must be treated on priority basis; how to ensure implementation of works as per plan and how to monitor it; how to ensure transparency in implementation and programme fund management; how to ensure timely collection of farmers share of investment; how to ensure that the poor also benefit from the programme;

Example of few rules framed by Myrada WDAs:

- Monthly review of the financial status of the WDA
- Display of the financial status in a common place which is updated monthly
- All accounts in the name of the WDA and not in the names of one or two members
- No money transactions to be conducted outside the meetings
- Signatories of WDA Bank account to be rotated periodically
- No WDA member to hold cash balances of the group at any time
- All decisions regarding fund management to be verifiable through minutes of WDA



Facilitator's Note: This session can be used to frame basic rules related to membership, meetings, finance, leadership, training, etc. Rules related to more specific subjects like common property resources, land treatment related, environment related, etc. can be discussed as and when the group starts taking up such activities.

Process:

- Step 1 : Brainstorming:** Ask the participants to list out the areas in which rules should be framed in a WDA. Supplement this list with the list given in *Content 2.2*.
- Step 2 : Sub-group discussion:** Divide participants into sub groups. Ask each of the sub-groups to select an area where rules need to be framed. Allot time for the sub-group to discuss and frame rules. Also ask them to discuss the sanctions for violating the rule. You can assist the sub-group members in framing the rules by probing them with related questions. A sample list of questions is given below.

Leading questions to assist the sub-groups to frame rules:

Membership Related

- Are all stakeholders represented?
- Have all people with lands in the catchment enrolled in the WDA?
- What should the membership fee be so that it is affordable to all concerned?
- How many members should the WDA have?
- What happens if a member wishes to leave the WDA at some point of time?

Meetings Related

- At what time, place and frequency should the WDA meet?
- How are the meetings conducted/ documented/ followed-up.
- What fines should be imposed for members who are late for meetings or are absent without prior notice?

Leadership Related

- What qualities should a representative have?
- How often will representatives be rotated?
- Will the WDA assess its own performance or will it require the help of the NGO staff/ outsiders?
- What sanctions will be imposed if the representatives don't do their duties properly?

Finance Related

- For what purposes will the funds in the WDA be utilized?
- Who will monitor the utilization of funds?
- In case of loans, how will the WDA ensure that members pay their dues to the WDA in-time
- How will the WDA ensure that it pays its dues to other institution from which it may have borrowed?
- Who will maintain the WDA's accounts?
- Who will handle cash and how?
- What are the sanctions for delayed repayment? What are the sanctions for misutilisation of loan?

Training Related

- Who will attend trainings?
- How will those trained share their knowledge/ experience?
- What are the sanctions for non-attendance in trainings?

Watershed programme Related

- On whose lands should treatments be taken up on priority basis?
- How to ensure that the poor benefit from the watershed?
- How will transparency in implementation and in financial aspects be ensured?
- How will the programme be monitored?
- How will the WDA ensure that farmers pay their share of investment in time?

Step 3 : Let each sub-group present the result of its discussions. Allow for debate, additions and deletions.

Step 4 : Supplement any information if required.



Facilitator's Note: If this module is being conducted for one particular WDA and all the members are present, then the rules framed during the session can be taken as final, and can be noted in the minutes book. If the module is being conducted for a mixed group – i.e. participants are representatives of various WDAs, then these representatives should carry out a similar exercise when they go back to their WDAs. A few representatives cannot frame rules on everyone's behalf.



Stop and Check!

Have the participants listed down rules pertaining to basic and more general issues of the WDA? Have they decided sanctions for violation of the rules?

[illegible]

[illegible]

Book-keeping in a WDA



Module Overview:

Books and records are important instruments to ensure transparency and accountability in an organisation. This is especially so, when the institution is handling programmes and is involved in financial transactions. Hence the WDA must understand the importance of maintaining relevant books.

This module discusses the various books and records maintained by WDAs on various MYRADA projects. All the books mentioned here are not kept by all the WDAs. Each WDA decides which books are necessary, though there are a few books which are common to all the WDAs. MYRADA's experience with WDAs indicates that the books related to accounts are often not kept up to the standard required. This module therefore gives more importance to make the WDA members aware of the critical importance of maintaining books of accounts. Details regarding how to maintain each book will be provided in a separate manual being brought out by MYRADA specifically on financial systems in WDAs. This can be used to train the WDA book-writers.

Sessions

- 1

Topic	: The importance of maintaining books and records
Duration	: 45 minutes
Methods used	: Game, role play and group discussion
Materials required	: Paper money, chart paper and markers.
- 2

Topic	: What are the various books at the WDA level? What is their purpose?
Duration	: 1 hour
Methods used	: Lecture, group discussion
Materials required	: Sample books being maintained in WDAs, chart papers and marker
- 3

Topic	: Selecting a book-writer
Duration	: 30 minutes
Methods used	: Brainstorming, group discussion
Materials required	: Chart paper and markers
- 4

Topic	: Financial auditing in a WDA
Duration	: 30 minutes
Methods used	: Lecture and group discussion
Materials required	: Audited statements of the WDA accounts, chart paper and markers

Total Duration: 2 hours 45 minutes

Module Aim and Objectives:

The aim of this module is to help WDA members to understand the importance of record keeping and acquire skills and insights which will enable them to monitor record keeping minutes of meetings, financial statements, etc. This module also tries to communicate the importance of a book-writer for a WDA. The necessity of periodic auditing of WDA books by external auditors is also highlighted.

At the end of this module the participants will be able to:

- Explain the importance of maintaining and updating books and records regularly.
- List the books maintained at WDA level and explain the importance of each of them. (If all the WDA members are present they can even prioritise the essential books that their WDA needs to maintain)
- List the responsibilities of a book-writer and decide the process to appoint her/him and the experience/qualifications required.
- Explain the need for periodic auditing of the books of accounts.

The Importance of Maintaining Books and Records

Session Objective:

At the end of the session the participants must be aware of the need for maintaining books and records in their WDA.

Session Duration: 45 minutes

Methods Used: Game, role play and group discussion

Materials Required: Paper money, chart paper and markers

CONTENT

Content 1.1: Importance of Book-Keeping



Book-keeping implies keeping track of events, accounts/transactions, etc. by writing them down in separate books and timely updating the same. This helps in the following ways:

1. If not recorded, decisions, events, transactions, etc. can be easily forgotten and hence later might lead to confusion and conflict. In a WDA, when decisions are recorded immediately in the meeting, they are recognised and respected by all the members.
2. Keeping records, helps in planning the future by reflecting on past experiences.

Process:

Step 1: Play the money game as given in the box below:

The Money Game: Ask one of the participants to volunteer for the game. Ask him/her to distribute paper currency to 3 participants. Each participant can receive more than one currency note. Ask her/him to collect the money back and redistribute it to 5 other participants. Ask her/him to collect the money back from 3 of the participants and redistribute it to 4 others. Let this continue till the transactions get a little complicated. Now ask the volunteer to list out how much money s/he has given and to whom. Ask the participants – who received how much money?

Step 2 : Analyse the game using the following leading questions:

- Can anyone remember the transactions exactly as they happened?
- Why is it difficult to remember the transactions in the game?

Message: Frequent transactions cannot be remembered after a while and hence need to be recorded immediately and regularly. It is very difficult to rebuild your records after some time has lapsed.

Step 3 : Ask the participants to **conduct a role-play** based on the case given below:

Case for role play: A gully check which was directly beneficial to 3 farmers having lands adjoining to the structure has breached. WDA has convened a meeting to decide how to repair the gully check. One of the beneficiaries offers to contribute 40-50% of the sum required for repair. Later when the actual repair work starts, he/ she refuses to share any financial burden. S/he refuses to remember having even made such a promise.

Instruct the participants to demonstrate through role play the meeting situation discussed in the case above.

Step 4 : **Analyse the role-play:** What happened during the meeting? Did anyone document the proceedings? If Yes, did documentation of the process help in resolving the conflict? If No, did it hamper the conflict resolution process?

Message: If the whole process had been documented with everybody's signature, the direct beneficiary would not have behaved the way s/he did. Hence it is very important to record all processes and decisions taken in a WDA.

Step 5 : Sum up by explaining the need to maintain books and records. *Refer Content 1.1.*



Stop and Check!

Are the participants able to state the need to maintain books and records?



Session: 2

What are the Various Books at the WDA Level? What is Their Purpose?

Session Objective:

At the end of this session the participants will be able to list out the books required for their WDA, and explain their purpose.



Facilitator's Note: This session gives an overview of the books maintained by WDAs on various MYRADA projects. If the particular watershed programme/ project/ donor requires maintenance of some other books in addition to those mentioned here, brief the participants about the same. Inform the participants that a separate training on book writing will be conducted for the book writers of the WDA, wherein the formats for record keeping and the modalities for making entries will be discussed and shared in detail.

Session Duration: 1 hour

Methods Used: Lecture and group discussion

Materials Required: Sample books maintained in WDAs, chart papers and markers

CONTENT



Content 2.1: WDA Books and Records, and Their Purpose

Following is a compiled list of books/ registers/ ledgers maintained by WDAs on various MYRADA projects. All WDAs may not be keeping all the books mentioned below. Each WDA selects the essential books to be maintained for their project.

Individual Members are Monitored through	Financial Transactions and Assets are Monitored through	Physical Progress is Monitored through
1. Minutes Book 2. Attendance Register 3. Individual Loans and Cash Contributions Pass Book 4. Individual Loans and Contributions Register 5. Admission Register 6. Training Register NOTE: Loans referred to in No. 3 and 4 need to be maintained only if the WDA is giving loans to individual farmers for treatment on private lands or for agricultural inputs.	1. Receipt and Payment Voucher 2. Cash Book 3. Bank Pass Book 4. General Ledger 5. Cheque Book 6. Stock Register 7. Fixed Asset Register (Minutes book, Individual Loan Pass book & Register, Utilisation certificate, Trial Balance, Monthly financial Statement are also helpful for financial monitoring)	1. Payment cum Project Cost Control Register 2. Work Measurement Book 3. Muster Roll Cum wage sheet 4. Activity-wise progress Register on private and common lands. 5. Local Contribution Register 6. Soil Test Register (helps in monitoring impact of watershed activities on the soil) 7. Impact register - for recording impact and analysis

In addition to the above books, WDAs maintain supporting documents such as Loan Agreement, Quotations, Purchase/Work Order, Bills and Vouchers etc. A file with PRA information, micro-planning documents, maps and other documents related to the area, is also maintained at the WDA.

Purpose of these books:

1. **Minutes Book** - Minutes Book is used to record all issues discussed and decisions taken during every meeting. It is also called the 'mother book' as it is one of the most essential books and the first book used during any of the meetings.

2. **Attendance Register** - This records the physical presence of the members in every meeting and helps to monitor the attendance.
3. **Admission Book** : At the time of admission, along with the member's name, details regarding his/her social and economical status is recorded. This forms a baseline to evaluate the impact of the programme on the member's socio-economic status. Regular updation of the same is required to study the impact.
4. **Training Register** - This records the trainings given to and attended by the members of the WDA.
5. **Individual Loan and Contribution Pass Book** - Every member is given this book which records his/her loan and repayment details. Besides, this book also records the member's contribution, project grant to the member and total amount that is invested on his/her land. This is kept with the member.
6. **Individual Loan Ledger** - This contains information of individual loans of all the members. It is used to review the recovery status of individual farmers and plays a major role while sanctioning loans. This is kept with the WDA.
7. **Receipt and Payment Voucher** - A receipt voucher acknowledges that money has come in to the WDA's account from members or from other sources. A payment voucher acknowledges that money has gone out of the account to members or to any other parties; these vouchers should be serially numbered.
8. **Cash/ Bank Book** - Daily records of receipts and payments is made in chronological order in this book. It is balanced daily and signed by the authorised signatories.
9. **Bank Pass Book** - This book records the deposits made into, and the withdrawals made out of the bank account of the WDA. It is maintained by the banker. This book helps to prepare monthly Bank Reconciliation Statement and monthly closure of the Cash/Bank Book. It is kept with the WDA.
10. **General Ledger** - The records in this book are based on the entries in the cash/bank book. It is a book where transactions of similar nature are grouped together. It is from this book that monthly trial balances and year-end final accounts are prepared.
11. **Cheque Book** - The Cheque book is issued by the Bank to the WDA. To ensure transparency and accountability, transactions through cheques have become a norm in WDAs.
12. **Stock Register** - This register is maintained at every stock point. Materials secured and delivered should be entered in the register immediately.
13. **Fixed Assets Register** - This is useful to the WDA to have a control over the assets received in the name of the WDA and to have a systematic procedure to acquire and dispose assets. It is also useful to record the number and location of all the physical structures that have been introduced in the watershed like number of gully plugs, weirs, length of bunds, trenches, etc., including the structures that existed before the project.

14. **Payment cum Project Cost Control Register** - This records expenditure on all activities against the amount budgeted.
15. **Work Measurement Book cum Payment Register** - This contains information on the measurement of the each activity and is maintained at WDA level. This is used to cross check with the Muster Roll & Wage Sheet (total unit completed Vs. individual labour work). Payments are made as per this statement.
16. **Muster Roll cum Wage Sheet** - This records the attendance of labour with the confirmation by the designated person or committee who checks the unit of work completed and approves the payment. This document helps to keep the record of employment generated for men and women and to keep track of the contribution made in the form of labour and wages paid.
17. **Impact Register** - This register helps to review the impact of the watershed activities on yield, cropping pattern, soil fertility, water bodies in the watershed, linkages, knowledge and awareness of the farmers of the watershed, etc. This is kept either by the WDA or the NGO.
18. **Activity wise Progress Ledger (maintained separately for Individual lands and Common lands)** - This is maintained at WDA level. It provides the information on planned physical and financial targets both for individual as well as common land for the entire project period and for each year. Activity wise achievement is recorded monthly against the plan.
19. **Local Contribution Register:**
 - Cash contribution** - The representatives of the WDA collect cash contribution from the members and issue cash receipts. This contribution needs to be minuted in the minutes book and recorded in the local contribution register.
 - Contribution in labour** - The details of members contributing to the project in the form of labour are recorded in this register. These details include the member's muster roll detail, quantity of work done, etc. This helps in calculating the people's contribution to the programme in the form of labour.
20. **Soil Test Register** - This records the type of soil, its fertility and the nutrient content before taking up work. When updated periodically, it helps to monitor the impact of the interventions on soil status.

Process:

Circulate sample copies of books and registers among the participants and explain the purpose of each one of them referring to content above. Ask them to list out the books required for their WDA.



Stop and Check!

The participants must be able to list out, identify and mention the purpose of each of the books and registers and to decide which is required for their WDA.

SESSION THREE

Session: 3

Selecting a Book Writer

Session Objective:

At the end of the session the participants will be able to say who can qualify to become a book-writer for their WDA.

Session Duration: 30 minutes

Methods Used: Brainstorming, group discussion

Materials Required: Chart paper and markers

CONTENT



Content 3.1: The WDA's Book-Writer

A book-writer could be a literate person from among the group members. In case such a

person is not available, the WDAs

hire the services of any literate youth/ person from the village.

Often sons or daughters of the WDA/ SHG members help the members with writing the books.

In many of the WDAs, the book writer is remunerated by the

group for his/ her services. Any

person chosen for this job has to be

extensively trained to maintain and update

the books. WDAs should always try to select

and train two to three persons for book writing, so that if one of

them is unavailable, the task does not suffer.



Some useful practices followed by the WDAs to monitor the book-writers:

- The book writer never handles money.
- WDA members always verify the minutes before they sign.
- If the book writer is not a member of the group, s/he does not interfere with the group's proceedings.
- Some WDA members learn the systems of book-keeping and keep a check.
- During meetings, a literate person/ Chairperson sits next to the book-writer.
- Books are never kept in the custody of book-writer; they are always with the WDA and the book-writer handles the books only in the presence of other members.
- Regular auditing of the group's account has proved useful to the WDA's, to assess the book-writers performance.

A book writer should possess the following qualities:

Knowledge of accounting – if a person has good sense for numbers, s/he can be trained to write the books; the person should be known for her/his personal integrity and honesty and be acceptable to all group members. With experience, book-writers are able to analyse the information in the books and present it to the group members.

Process:

Step 1 : Brainstorm the group with the following **Key Questions:**

- What qualities and skills would you look for in a book writer?
- How will you monitor your book-writer?
- What steps will you take to ensure that your WDA does not suffer if your book writer is unavailable or is otherwise unable to write the books?

Step 2 : Elicit the answers for the above and supplement it with the *Content 3.1*.

Stop and Check!

Are the participants able to describe all the qualities and skills of a desirable book writer? Are they able to explain what steps they will take to monitor their book-writer and to ensure that their WDA does not suffer if their book writer leaves? Are they able to explain how they will monitor the book-writer?



Financial Auditing in a WDA

Session Objective:

At the end of this session the participants must be able to understand the importance of auditing the WDA's books of accounts periodically.

Session Duration: 30 minutes

Methods Used: Lecture and group discussion

Materials Required: Audited statements of the WDA accounts (sample), chart paper and markers.

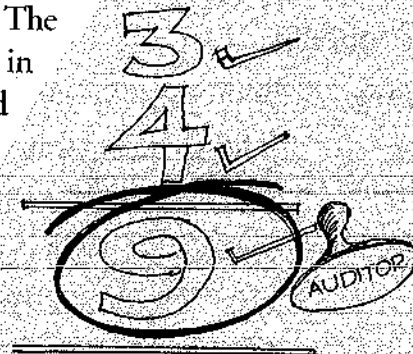


CONTENT

Content 4.1: Need for Auditing in a WDA

Auditing is a systematic verification of books of accounts by an external accountant (Chartered or experienced Auditor). The objective of auditing is to track errors and omissions in maintaining accounts, to rectify the existing errors, and to prevent the mistakes from being carried forward.

Auditing is required for the benefit of the WDA itself and to establish the credibility of the WDA's operations before the outside world. It is important that the WDA ensures follow-up action based on the audit report.



Process:

Step 1 : **Brainstorm** the participants to elicit their opinion about the need to audit books of accounts.

Key Question: What is meant by auditing? Why does the WDA need to audit its books of accounts?

Indicative Answers are:

Auditing is scrutinising of our books of accounts by an outsider. WDA accounts need auditing –

- to promote financial accountability and transparency
- to find and rectify the errors and omission in maintaining books in time
- to strengthen the existing accounting system in the group
- to confirm income, expenditure, assets and liabilities

- to build trust in the WDA as an institution leading to sustainability, recognition and credibility
- for future budgeting and financial decisions.

Step 2 : Elicit the answers for the above. Using the last audit report of the WDA, highlight the strengths and weaknesses of the group. Explain, how a group can be assessed based on the audit report. Explain the need for a follow-up action on the audit report.

Stop and Check!

Are the participants able to explain why WDAs need to get auditing done periodically?



READINGS FOR THE FACILITATOR

Book-keeping Related

Promote	Discourage
1. The NGOs must ensure that WDAs are trained to keep basic books and documents. 2. The WDA members must be aware that they should ensure that all books of accounts are regularly updated. 3. The WDA members must be aware that they must close the books by the end of each calendar year. 4. WDAs must be helped to evolve their own (appropriate) mechanisms for ensuring writing and updating WDA books. They can do this either by getting one of their members trained in the job, or by recruiting somebody on voluntary or paid basis.	1. The NGOs should discourage the practice of keeping WDA books with the staff or in the NGO office. 2. Money for purchase of books & stationery may come from NGO at the initial instance but this cannot be a permanent arrangement. The WDA must pay for these. 3. The NGO staff must assist the WDAs in maintaining their books, but care should be taken to see that the staff does not take on the role of writing the books on a permanent basis. 4. If a WDA retains a person on an honorarium/wage basis to keep accounts, the wage will have to be generated by the WDA and not expected from the NGO.

Audit and Asset Related	
Promote	Discourage
1. WDA Accounts must be audited atleast twice a year. 2. WDA Auditors must ensure that concerned staff and WDA representatives are present at the time of audit. 3. The audit report must be presented to the WDA in the language members can understand. 4. Audit reports should be taken note of, for immediate and appropriate follow up action. A regular, <u>recorded</u> system should be established by the Project Officer to follow up audit remarks. 5. WDA Auditors should not only scrutinise and tally books but also take up the task of asset verification. 6. Insurance of assets and settlement of claims, etc. have to be verified by WDA auditors.	1. Disposal of WDA-owned assets cannot be undertaken without the approval of members and appropriate documents. 2. Members who have purchased assets with WDA assistance cannot dispose off the same while loan instalments are still due, without adequate reasons that have the approval of other members. 3. Where project accountants are hired to scrutinise the WDA books of accounts, it is recommended that one accountant handles not more than 20 to 25 WDAs accounts.

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SECTION 5

INSTITUTION BUILDING (PHASE II)



MODULES

- 5.1 Leadership
- 5.2 Collective Decision Making
- 5.3 Conflict Resolution
- 5.4 Ensuring Equity in a Watershed Programme
- 5.5 Gender Issues in Watershed Management Programmes
- 5.6 Establishing Linkages

Leadership



Module Overview:

A watershed programme undertaken by people's institutions, aims at building people's confidence and skills required to manage the programme. Success or failure of any programme depends to a large extent on those who are leading or coordinating it. WDA members need to be aware of the qualities of able leaders, in order to elect them to lead their group. Further, the programme should focus on empowering all the members of the watershed institution to take up leadership successively rather than empowering a few. Hence the members need to be made aware of the need to change group leaders periodically.

Module Aim and Objectives:

This Module focuses on the type of leadership required for the WDA and the need to change the leaders periodically.

At the end of this training module, participants will be able to:

- Explain the need for leadership in a WDA
- Describe the qualities of a good leader
- Explain the need to change leaders periodically

Sessions

1	Topic	: The need for leadership in a WDA
	Duration	: 30 minutes
	Methods used	: Games, lecture, brainstorming
	Materials required:	Chart paper and markers
2	Topic	: Leadership styles and characteristics of a good leader
	Duration	: 1 hour 30 minutes
	Methods used	: Lecture, exercise, role-play, brainstorming, group discussion
	Materials required:	Chart paper and markers. For the exercise: 4 glasses, water, stone, handful of mud, little sugar
3	Topic	: Promoting leadership through rotation
	Duration	: 45 minutes
	Methods used	: Brainstorming, lecture
	Materials required:	Chart paper and markers

Total Duration: 2 hours 45 minutes

Step 2 : Analyse the game and the behaviour of members of each of the groups during the exercise. **Guiding Questions:**

- How did the first group go about collecting materials? Was there any confusion in the group? Did every one in the group know what to collect?
- How did the second group start? Who decided about what should be collected? Was any strategy planned? Was there any confusion?
- What did they learn from this exercise?

Step 3 : Brainstorm the participants to elicit their views about the need for leadership in their WDA.

Leading Question: Why do you need leadership in your WDA?

Elicit answers for the above.

Step 4 : Sum up by filling in gaps if any and emphasise the key-message in *Content 1.1*. Stress that the three categories of functions/roles of the leader (related to organisation management, administration and group building related), are all equally necessary. The supporting inputs to perform these functions are gradually built up through trainings, experience and reflection on and analysis of experience.

Stop and Check



Are the participants able to explain why their WDA needs able leadership?

Session: 2



Leadership Styles and Characteristics of a Good Leader

Session Objectives:

At the end of this session the participants will be able to:

- identify and describe various styles of leadership
- describe the kind of leadership that is appropriate for their WDA
- list out qualities of an ideal leader for their WDA

Session Duration: 1 hour 30 minutes

Methods Used: Lecture, exercise, role-play, brainstorming, group discussion

Materials Required: Chart paper and markers, for the exercise - 4 glasses, water, stone, handful of mud, little sugar

CONTENT

Content 2.1: Different Kinds of Leaders

1. **Autocratic Leader:** is selfish, bossy, dictatorial and dominating. S/he tends to impose his/her views on everyone. Such a person might be successful in accomplishing the task set out for the group, but is least considerate of members' needs, opinions and preferences. As a result if s/he is absent, no one will take any initiative and even when s/he is present no one will dare to make suggestions.



2. **Neutral or Dummy Leader:** is a leader only in namesake. S/he is irresponsible and does not like to take risks. To avoid taking responsibility for his/ her actions, the person might, in the name of participation, ask the members to act according to their own wishes. As a result no one knows what to do.



3. **Anarchic Leader:** is negligent, promotes no mutual understanding in the WDA; in fact s/he promotes dissidence among the members. Instead of building up the group and trying to maintain group unity, s/he does more harm by using 'divide and rule' policy. For example: in a conflict situation, such a person tends to side with the party from which s/he foresees more personal benefits.

4. **Democratic or Participatory Leader:** tries to represent and give space for every members' interests to be expressed and discussed. Such leaders accomplish any task by involving all the people concerned; they make them feel that the task in hand is the responsibility of the entire group and not just of the leader. Such leaders act as a catalyst in the entire development process and thus help each of the members to grow. Such leaders are willing to contribute their time and resources to help build the group.



This is the ideal kind of leadership required for any group.

(Additional reading on Democratic Leaders at the end of the module).

Content 2.2: Characteristics of a Good Leader

A good leader of a group:

- Is sincere, honest, impartial and courageous
- Puts group interest before self-interest
- Promotes participatory decision making and encourages all members to participate in the activities of the group
- Tries to create leadership potential in all the members
- Is a visionary who always keeps the group's goal and vision in mind and strives to achieve it involving everybody
- Is a good planner, who delegates responsibilities and keeps a track of individuals in the group doing their duties
- Takes initiative, challenges and risks

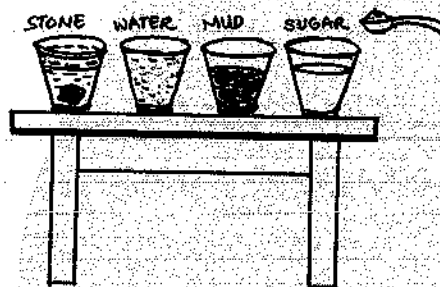
Process:

Step 1 : Lecture: Explain the four kinds of leadership styles mentioned in *Content 2.1*.

Step 2 : Conduct the exercise given in box below for further clarification.

Materials required for the exercise: 4 glasses, water, stone, handful of mud, sugar (2 spoons)

Exercise: Take four glass tumblers and fill them upto half inch below the brim with water. Ask 4 participants to volunteer. Ask the first volunteer to drop the stone in one glass. (Ensure that the stone is large enough to make the water overflow). Ask the second volunteer to pour some water in the second glass and fill it up to the brim. Ask the third volunteer to add soil to the third glass (ensure that the type of soil selected mixes to a large extent with water). Ask the fourth volunteer to add sugar in the fourth and stir it slowly.



Ask participants to describe what happened in each case. Explain the 4 kinds of leadership styles mentioned in the content above by analysing the exercise as follows:

- The autocratic leader is like the stone dropped in the tumbler. Like a stone, the autocratic leader does not mingle with the group. Even more, like a stone which displaces some water from the tumbler, an autocratic leader may cause discontent among the members and make some of them leave the group.
- Adding water to water makes no difference. Dummy leader is similar to this - s/he does not make any difference to the WDA.
- Anarchic leader is like the soil which muddies the entire water. S/he creates disturbance in the entire group.
- The sugar represents the democratic leader. Sugar dissolves in the water and sweetens it. Similarly, a good leader mingles with the rest of the group and adds quality to it.

Step 3 : The 4 kinds of leadership can further be made clear by conducting a role-play. Ask participants to simulate a WDA meeting using the following case:

Case: The issue of giving a loan to a WDA member for building a boulder bund is being discussed. The farmer concerned is not very regular in attending meetings. He has also not cleared his earlier loans with the WDA. However his need for a boulder bund is genuine as his land is on a slope and erosion is high. If loan is not given immediately, the watershed programme in the area comes to an end and there will be no other opportunity in the near future for availing the same. There are other competitors for availing this loan. The group is divided in its opinion about extending a loan to this farmer.



(You can choose any other case from your field/watershed for the purpose).

Divide the participants into 4 groups. Ask each one of the groups to stage a meeting to discuss the above issue. Ask a volunteer from each group to enact one of the four kinds of leadership styles listed in *Content 2.1* (4 volunteers, 4 types of leaders). The others in the group should not be told about the kind of leadership style their group volunteer is portraying. Give 10 minutes to each group for the enactment.

At the end of the exercise, ask the participants to identify the leadership styles enacted by the four volunteers and analyse the leader's behaviour in each case.

Guiding Questions:

- How did the leaders behave in each of the case?
- Can you point out the kind of leadership portrayed by each of the volunteers?
- What approach did each leader take in sorting the problem?
- Did the leader involve other members in the decision making process? Did s/he listen to the farmer's point of view?
- Was the decision impartial?

Using the characters in the role play as an example, explain the different kinds of leadership styles.

Step 4 : Brainstorming: What are the characteristics of a good leader? What qualities would you like your leader to possess?

Step 5 : Elicit answers. Supplement points from *Content 2.2* if required. Ask them to reflect on persons having such qualities in their group who can become their representatives/leaders.

Stop and Check!

Are participants able to describe the different leadership styles? Are they able to list out the qualities of a good leader?



An example of a Leader taking initiative to see that his group members benefit: A case of Jadeswamy Watershed, Ganigamangala village, Kollegal Hill Area Development Project, MYRADA

Ganimangala is a small remote village located 33 kms away from Hanur in Chamarajanagar district of Karnataka. The dominant community here is the 'Soliga' - a tribal community. Work in Jadeswamy watershed located in Ganimangala village started in November 1999 with 32 members. It covers 175 acres of land. Kariyappa is a Soliga tribal leader and is also a village leader. He took the initiative in starting this watershed programme. He is also a representative (leader) in the WDA. After establishing the WDA and starting the watershed programme, Kariyappa took the initiative in establishing linkages with the Agriculture Department to mobilise resources available at subsidised rates. He met the Department officials and mobilised 10 tonnes of gypsum, 3 power sprayers, 10 litres of pesticide, Rs.3000/- as assistance for compost pits and got 5 hand sprayers free of cost for the WDA members. He organised a 2-day seminar on groundnut cultivation practice in the village and invited agricultural scientists and department staff as faculty. The WDA members supported him in his initiative. Kariyappa still goes on motivating other people and involving them in development activities through the WDA.

Session: 3



Promoting Leadership Through Rotation

Session Objective:

At the end of this session participants will be able to state the importance of changing the WDA representatives/ leaders periodically.

Session Duration: 45 minutes

Methods Used: Brainstorming, lecture

Materials Required: Chart paper and markers

CONTENT



Content 3.1: Rotation of WDA Representatives

Leaders change in every institution - even in an informal institution like a family. The son/daughter takes over when the father is too old or dies. The father tries to orient the children to take over family responsibilities.

Members of the WDA do not belong to a homogenous community. People from different backgrounds and different levels in the community's caste and income hierarchy

become members of the WDA. It is only natural to expect that leaders in the village society will try to become leaders in the WDA.

In the formative stage of the group, there are people among those who have lands in the watershed who take the initiative to form the group, who volunteer to take up responsibilities, who take the risk of starting a particular activity first, etc. These are the people who are easily identifiable due to their inherent leadership qualities. They are the ones who are usually elected to become representatives of the WDA in the first year; they are the natural leaders.

Natural village leaders are of great help to the NGO/ intervening organization in the initial period when it is not too well acquainted with the people. But care should be taken to see that these people are not given more than necessary importance, because they may hijack the entire WDA and the programme to suit their needs. There have been instances where such leaders mis-lead the NGO staff due to excess faith placed in them.



Gradually, over the first year, the intervening organisation as well as the representatives should try to identify and train a second line of leadership in the WDA. This is done by inviting members to function as Chairpersons during WDA meetings during the first year, by taking them to meetings with Government, Banks etc. This helps them to gradually acquire the confidence and skills required for leadership. It is obvious that all will not respond in a similar fashion; but the opportunity must be given to all. In this way, rotational leadership will ultimately lead to creating leadership capacities in all the members so that they can not only lead the group, but also can steer their life towards a better future.

Benefits of changing WDA leaders periodically:

- It gives an opportunity to every member to develop leadership qualities through practice; as a result the hidden potential of people comes to light and is known to other members.
- It promotes sharing of responsibilities
- It does not allow domination by a few members
- It helps in ensuring transparency
- It prevents exploitation of the WDA by a few members
- It ensures that the group will not collapse in the absence of one or two leaders

It contributes to the process of empowerment as every member gets a chance to become a WDA representative and to assume responsibilities.

Process:

Step 1 : Brainstorm the participants to help them analyse leadership in their WDA.

Leading questions:

Who contributed the most in organising the people in the watershed group? Is s/he a Panchayat member? Does s/he generally take the lead in any village related activities? Is the person a member in your WDA? If Yes, what position is s/he holding in the group at present? Was this person a representative in the first year? Is the system of changing the leaders/ representatives being followed in your group or not? In either of the cases what has been the consequence? ...

Step 2 : Brainstorm the participants about the advantages of rotating a leader.

Guiding Questions:

- What happens if a person appointed in the first year as a leader or a representative continues in the same position for 5 years?
- What happens if this person suddenly dies or leaves the village?

(Probable Answers: The person will start dominating the group. He/ she will start using the group for his/ her own interest. Others will not get an opportunity to learn and take on the responsibilities of a representative. If the sole leader suddenly dies or leaves, the group will feel lost without anybody to give directions, ...)

Step 3 : Elicit answers for the above and referring to *Content 3.1* explain the need to change the WDA representatives periodically.

Step 4 : Brainstorming: How often do you think you should change your representatives? Why?

Step 5 : Elicit answers and ask them to minute the decision taken.

Stop and Check!



Are the participants able to explain the importance of changing leaders periodically in a WDA? Have they decided the frequency of changing the representatives in their groups

Additional Reading on the Characteristics of a Democratic Leader

Democratic leaders are principle-centred leaders who have the following qualities which make their style of leadership more effective than others.



They are continually learning: They are open to new experiences. They read, they seek training, they attend classes, they listen to others, they learn through both their ears and their eyes. They are curious, always asking questions. They continually expand their competence, their ability to do things. They develop new skills, new interests.

Most of this learning and growth is self-initiated and feeds upon itself.

They are service oriented: They see their task as a mission and not as a burden. They place the interest of the group above their own.

They radiate positive energy: Their outer expression is always cheerful, pleasant, happy. Their attitude is optimistic, positive, upbeat. Their spirit is enthusiastic, hopeful, believing.

This positive energy is like an energy field or an aura that surrounds them, which changes weaker or negative energy fields around them. They also attract and magnify smaller positive energy fields. When they come into contact with strong, negative energy sources, they tend either to neutralise or to sidestep this negative energy.

They believe in other people: They do not overreact to negative behaviour, criticism, or human weaknesses. They realise the potential of all people. They feel grateful for their blessings. They forgive and forget the offences of others. They don't carry grudges. They refuse to label other people, to stereotype, categorise, and prejudice.

They lead a balanced life: They are active socially, having many friends. They are active intellectually, having many interests. They read, watch, observe, and learn. Within the limits of age and health, they are active physically. They enjoy themselves. They have a healthy sense of humour, particularly laughing at themselves and not at others' expenses. They are not extremists – they do not take an “all or nothing” approach.

They see life as an adventure: Ready to take risks. They don't label people from past successes or failures. They see no one bigger than life. They are not awed by top government figures or celebrities. They are capable of adapting to any situation. One of their principles is flexibility.

They are synergistic: Synergy is the state in which the whole is more than the sum of the parts. They improve almost any situation they get into. In team endeavours they build on their strengths and strive to complement their weaknesses with the strengths of others. Delegation is easy and natural to them, since they believe in others' strengths and capacities.

They exercise for self-renewal: Finally, they regularly expand and deepen the four dimensions of the human personality: physical, mental, emotional, and spiritual.

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This image shows a blank sheet of white paper with horizontal ruling lines. A large, dark gray triangular shape is positioned on the right side of the page, pointing towards the top-left corner. The paper appears to be part of a document or notebook, with some faint, illegible markings visible along the edges.

Collective Decision Making



Module Overview:

The WDA is composed of persons from various castes, classes and income strata with varied interests in the watershed. The nature of the watershed programme itself is such that it has the potential to generate conflicts. Before presenting training sessions on conflict resolution strategies (which will be presented in the Module 5.3), it is useful to reflect on the importance of increasing people's awareness of, and commitment to a process of collective decision-making. If people are able to initiate and manage this process of collective decision-making and see its value in promoting a win-win situation that will benefit all stakeholders in the WDA, it will lay the basis for a stronger WDA.

Module Aim and Objectives:

The aim of this module is to communicate the importance of collective decision-making to the participants and to equip them with the skills involved in arriving at a consensus.

Sessions

1	Topic	: What is a decision? What factors influence decision-making?
	Duration	: 1 hour
	Methods used	: Brainstorming, guided dialogue, lecture and game
	Materials required:	Chart paper and markers
2	Topic	: Various ways of making decisions
	Duration	: 1 hour
	Methods used	: Lecture, brainstorming, fish-bowl exercise and group discussion
	Materials required:	Chart paper and markers
3	Topic	: Process of collective decision making
	Duration	: 45 minutes
	Methods used	: Lecture, role-play, brainstorming
	Materials required:	Chart paper and markers
4	Topic	: Importance of recording decisions
	Duration	: 15 minutes
	Methods used	: Brainstorming
	Materials required:	Chart paper and markers
Total Duration: 3 hours		

At the end of this training module, participants will be able to:

- Describe various ways in which groups of people arrive at decisions
- Explain why the members commitment to collective decision making is essential in a WDA
- Explain the importance of recording decisions taken in the WDA

What is a Decision? What Factors Influence Decision-Making?

Session Objective:

At the end of the session the participants will be able to:

- explain what a decision is
- list the factors influencing decision making

Session Duration: 1 hour

Methods Used: Brainstorming, guided dialogue, lecture and game

Materials Required: Chart paper and markers

CONTENT

Content 1.1: What is a Decision?

“Considering various choices/alternatives in a given situation and at a given time, and coming to a conclusion/solution”



Content 1.2: Influences on Decision Making Process

Decisions are highly dependent on:

- **People:** decisions depend to a large extent on the people taking them. Given the same situation, different people may take different decisions. People's decisions are influenced by their past experience, perceptions, background, biases and expectations.
- **Situation and time:** Decisions often differ based on situation and time. Given different situations and times, the same person may take different decisions on a same issue.
- **Resources:** Decisions also depend on the resources available with the people at the moment of taking the decisions.

Example: All farmers would have different reasons for joining or not joining a WDA. For example, in a watershed programme some farmers refused to get involved because of their past bad experience with a previous Soil and Water Conservation programme. Another farmer refused to join the WDA, because one farmer owning land higher-up, broke his bund during heavy rains which caused a gully in his land – the conflict between them was still fresh. Yet another farmer refused to join because there was a family history of conflict over land. Few other farmers, who agreed to join the WDA, did so, because they had relatives in a neighbouring village who were members in their respective WDAs. These relatives had spoken to the farmers about the benefits of a watershed programme.

In order to make the right decision, it is important to have adequate information about the issue. For example:

- In order to decide which crop to grow, the farmer must have information on the soil type, previous history of cultivation, sale price, availability of inputs.
- In order to arrive at a decision on whom to approach for a loan, a borrower must know the sources and the terms and conditions offered by each of them.
- In order to decide on a location for an earthen bund, the farmer must know the quantum and force with which water flows across his/her land during a heavy shower, the slope of the land, soil depth, etc.

Hence decision makers must gather as much information as possible related to the issue to help them analyse the matter and come to a decision. The facilitators should ensure that the farmer or the WDA member has access to as much information as possible in order to make the right choice.

Content 1.3: Factors to be Considered while making a Collective Decision

Collective decision is a conclusion/ solution to a certain problem or situation arrived at by a group of people. Following factors should be considered while making a collective decision:

1. The WDA should keep its vision and mission in mind
2. The WDA should listen to everyone's point of view and then take the decision after analysing all the options available
3. The decision taken should not be harmful to people within and outside the WDA
4. It should not be partial, favouring any one person or community

Process:

Step 1 : Brainstorm the participants to find out their understanding about what a decision is.

Key Questions: What is a decision? Can you give a few examples of the decisions taken in your everyday life?

Elicit answers for the above.

(Probable Answers: which crops to plant in the coming season; whom to approach for a loan; which market to sell the crop; at what price will it be profitable; what meal to cook; which school to send the children; where to locate a new hand pump; etc.)

Record responses on a chart paper.

Step 2 : Using Guided Dialogue method, discuss the factors that influence decision making. Select a decision that they have mentioned above (example: where to locate a new handpump) and discuss using the following leading questions:

- What factors did you consider while taking such a decision?
- Who took these decisions – one person or many? Head of the village or the concerned families? Men or women?

- Were there any disagreements? How were they sorted out?
- Would the decision have been different if the situation/ time/ people involved/ resources available, were different?

Step 3 : Lecture: Explain how decisions are people centric, situation centric or resource centric. (*Refer Content 1.2*).

Step 4 : To explain the influences on decision making further, play the game: 'Stranded on an island'.

Game: Stranded on the Island

Situation: A plane has crashed and the passengers are stranded on the island. There are 10 items available on the island: map, compass, food packet, needle, thread, torch, match box, revolver, blanket, water bottle. 4 rounds of the game are played one after the other. Following are the instructions to be given for each round:

Round 1: Ask all the participants to prioritise the items in the order that they would pick up if they were one among the stranded passengers.



Round 2: Ask the participants to sit in pairs and between the two of them decide and prioritise the items in the order that they would pick up if the two of them had been stranded on the island.

Round 3: Divide the participants in two groups. Ask each of the groups to prioritise the items they would pick up if they had been stranded on the island.



Round 4: Ask the participants to repeat the same exercise in one single group.



Step 1 : Analyse the game with the participants as follows:

- Given the same situation, did the participants decide differently?
- It is easier to take decisions individually. The more the number of people involved in decision making, the more difficult it is to arrive at a consensus.
- Collective decision-making involves modifying one's point of view to accommodate others' views.
- In different situations people take decisions differently. For example, if the plane had crashed in a desert instead of the island, the decisions taken would have been very different. Similarly, decisions depend on time. If the participants had landed on the island at night, the decisions would have been different.

Step 2 : **Brainstorming:** What are the factors to be considered by a WDA while making decisions?

Step 3 : Elicit answers. Supplement if required using *Content 1.3*.



Stop and Check!

Are participants able to define what a decision is? Can the participants state what factors influence decision-making? Are they aware about the factors to be considered by the WDA while making decisions?

Session: 2



Various Ways of Decision-Making

Session Objective:

At the end of the session the participants will be able to:

- describe various ways in which decisions are usually taken
- point out the most appropriate way of decision making
- explain why collective decision making is required in a group

Session Duration: 1 hour

Methods Used: Lecture, brainstorming, fish-bowl exercise and group discussion

Materials Required: Chart paper and markers

CONTENT



Content 2.1: Importance of Collective Decision Making

Collective decision-making is a democratic process by which all the stakeholders jointly discuss and arrive at a mutually beneficial solution. In this process all participants are involved from the beginning and their participation and contribution are promoted and respected.

Collective decision-making is important, as the members know why particular decisions are taken and hence “own” the decisions made. The process of collective decision making in a group is itself educative and empowering because individual members get an opportunity to express their views and debate on the issue. A decision arrived at the end of such a process has a high level of ownership and hence, reduces the chances of conflict during the implementation of the decision. Often collective decision-making paves the way for collective action.

Content 2.2: Various Ways of Decision Making

Different situations might require different decision-making styles. For example, in a crisis situation quick action by the group might be required; at such times, a ‘one-person’ decision may be necessary. However, it is important to note that the process through which the decision is made influences the implementation of the decision. A decision is effective only if those responsible for its implementation are involved in the process and accept the decision and commit themselves to implement it. Therefore the process of decision-making is as important as the decision itself. Some of the ways in which decisions are taken in a group are illustrated below:¹

- **The Unspoken:** *‘I think we should introduce ourselves’... followed by silence from the rest of the group.*

In this case it emerged that nobody agreed with the proposal to introduce themselves and the group decided not to take up the proposal. Instead of saying so explicitly, they expressed their disagreement through silence. (Decision by Omission). Silence cannot be treated as consent. Encourage silent members to speak. Do not make assumptions.

- **The Self-Authorised:** *‘I think we should introduce ourselves; I am...’*

Here one person has decided that the group members should talk about themselves and then has proceeded to implement the



¹ Adapted from “Training of Trainers: A Manual for Participatory Training Methodology in Development” PRIA 1994

decision without consulting the others (**Decision by One**). This often happens in the WDA during the initial months since the leaders selected tend to be more skilled and confident. The NGO needs to ensure that a second line of leadership is built up.

- **The Hand Clasp:** 'Does anyone object?' or 'Do we all agree?' - Decision by a minority on behalf of the majority

This occurs when a few people in the group decide on behalf of everybody without consulting anybody else in the group. This often happens when there are a few big farmers in the WDA. They tend to influence the group decisions in their favour by the virtue of they being more powerful than the others.



- **Voting: Decision by majority.** This process does not ensure understanding of the issue by all members as this does not involve open sharing of views in the group. The decision is taken without discussion and negotiation in which all are involved.



- **Consensus or Collective Decision Making:** Decision by many: All may not agree but a large majority does agree and others go along after discussion and negotiation. Everybody understands the reason behind the decision taken and hence there are more chances of members adhering to the decision taken.

Process:

- Step 1 : Brainstorming:** Why a collective decision-making process is important for a WDA?
- Step 2 : Lecture:** Elicit answers and supplement using *Content 2.1*.
- Step 3 : Lecture:** Explain the various ways in which decisions are usually taken, using sketches in *Figure 1* and give examples (*refer Content 2.2*). Ask the participants to supplement the discussions by giving examples.
- Step 4 : Fish Bowl Exercise:** To clarify *Content 2.2*.

Role play for the Fish Bowl exercise

Situation: A decision has to be taken in a WDA regarding the various activities to be implemented in their watershed under a watershed development programme. Also, the means of implementation – whether the majority of the works will be implemented through machinery or through labour – has to be decided. There is also a contribution component to the programme. The farmers have to invest a part of the total expenditure to be incurred on their lands. The WDA has members from all classes and occupations. It has agricultural labourers whose interest is to see that works are implemented using their labour. There are big farmers who favour the use of machinery as this would reduce the total cost of treatment on their lands and, in turn, will affect the amount of investment they need to make in the programme. One or two farmers in the WDA are also the owners of earth work machines. Their interest is to promote the use of their machinery.

Ask 10 to 15 volunteers to perform a role play. Divide the roles of agricultural labourers, big farmers, machine owners and the WDA representatives among the volunteers. Ask the rest of the participants to be observers. Allot 15 minutes for the play.

Step 5 : Brainstorm the observers as well as the performers about the method adopted in reaching a decision.

Guiding Questions:

What was the method used for arriving at a decision? Was the method adopted one among the ways listed in *Content 2.2*? Was it a combination of those methods?

Step 6 : Sum up by informing the participants that the best way of arriving at decisions is by involving all the members in the process. This ensures impartial decisions, in a win-win situation. The NGO, however, needs to emphasise that the landless/poor should benefit.

Stop and Check!

Are participants able to describe various ways of making decisions? Are they able to point out the most appropriate way of decision-making?



Session: 3

Process of Collective Decision-Making

Session Objective:

At the end of the session the participants will be able to explain the process of collective decision-making.

Session Duration: 45 minutes



Methods Used: Lecture, role-play, brainstorming

Materials Required: Chart paper and markers



CONTENT

Content 3.1: Steps Followed While Making Decisions Collectively

1. State the topic to be discussed and the issues related to it clearly in front of all the members.
2. Provide all the information relating to the topic and ask others to supplement with information if required.
3. Select a chairperson or a moderator who is able to guide the discussions without any bias.
4. Set a tentative time frame for arriving at a decision. At least be conscious of the time that will be spent.
5. Give a fair opportunity to all (especially the poor and women who are most affected by the issue) to voice their opinion.
6. Break down large issues into smaller more manageable ones.
7. Discuss the issues objectively in a polite and businesslike manner, maintaining control over emotions. Do not let personal biases or interpersonal relationships affect the decision-making process.
8. Some rules must be set for discussions: e.g., one person speaks at a time, do not confuse opinions with facts, stick to the topic being discussed, do not increase interpersonal tensions by undue criticism or negative feedback, etc.
9. Consider various alternatives and assess the impact (positive and negative) of alternate decisions on the persons concerned – within and outside the WDA.
10. If it is absolutely necessary to give the issue more time or to continue the discussions at another date, the chairperson should seek the permission of the members to do so.
11. When an agreement is reached on the issue, record it in the minutes book and move to the next issue – preferably to a related issue.
12. Make sure that the WDA members are committed to implement the decisions taken and that responsibility is fixed.
13. At the end the chairperson should thank all the participants for their co-operation in the decision making process.

Process:

Step 1 : Lecture: Briefly describe the steps (mentioned in *Content 3.1*) for arriving at a consensus decision. Emphasise the behaviour of participants that enables effective collective decision-making.

Step 2 : Ask participants to conduct a **fish-bowl exercise** (select participants and observers) based on the following case:

Situation: Nagaraj is a member of the Parisaramithra Watershed Association. He has 4 acres of dry land and grows ragi (finger millet). After a check dam was constructed in the watershed, he took a loan of Rs. 12,000/- from the WDA to level his land and dig an open well. He now plans to shift to sericulture, which will increase his income considerably. However, he needs to install a motor in his well for which he needs some more funds. He has not settled his outstanding dues on his first loan from the WDA. He has applied for another loan of Rs. 5,000/- to the WDA. The WDA does not lend to a member if s/ he already owes money to it. Hence most members of the WDA do not wish to lend money to Nagaraj. Besides, they feel that the burden of the first loan itself is too heavy for Nagaraj. Nagaraj's contention is that if he gets the second loan, he can start cultivating and irrigate his land, which will help him clear his debt. Nagaraj's application has been pending for two weeks. The WDA fears that if they consider his application and advance him the loan, it might set a precedent to other people doing the same. Nagaraj has been pleading his case but wants the WDA to decide one way or the other fast, for if the WDA does not give him the money, he has to look elsewhere for a loan even if it means a much higher rate of interest.

Supplement the participants with additional information if they ask for it. For example, the fund position in the WDA, Nagaraj's track record, his income, etc. Explain the purpose of the exercise, i.e. – to depict the process of collective decision-making.

Step 3 : Ask the observers to reflect on the behaviour of the participants and how the exercise was carried out. **Probe them with questions** like:

- Did the group arrive at a decision?
- Do you think it was a consensus decision? Was everyone involved in the decision making process?
- What process was followed for arriving at a decision? Was anyone 'hurt' by the decision? Did anyone feel left out? Did anyone dominate?
- Was Nagaraj given an opportunity to express himself?
- Did anyone dominate the process? Or did everyone participate freely?
- Were the steps/guidelines mentioned above in *Content 3.1* followed? Which ones were not observed?
- Etc.

Step 4 : Clarify doubts if any and sum up by stating that collective decision-making is a difficult process and requires a certain level of discipline to be followed.

Stop and Check!

Are the participants able to explain the process of collective decision-making? Can they recognise whether a decision is made collectively or not?



Importance of Recording Decisions

Session Objective:

At the end of this session the participants will be able to explain the need to record decisions taken in the WDA.

Session Duration: 15 minutes

Methods Used: Brainstorming

Materials Required: Chart paper and markers

CONTENT



Content 4.1: Importance of Recording Decisions

It is important to record all decisions taken in the WDA for the following reasons:

- To remember the decision taken and also the process and people involved in it. This will be of use in case of any disputes regarding the decision in the future.
- To maintain transparency in the WDA.
- To ensure accountability on the part of those who were involved in decision-making and to follow up on those who have accepted responsibilities.
- To serve as learning for any future decisions to be made.



NOTE: Often, only the final decisions taken tend to be recorded in the minutes book. But, it is essential to record the entire process of decision making. This helps to avoid any conflicts later on. It is important that decisions are recorded during the meeting itself and the minutes read out once the meeting is over. People present should vouch for the decision by signing the minutes.

Process:

Step 1 : Brainstorming: Ask participants why it is important to record decisions and what may happen if decisions are not recorded. Ask them to give an example of a decision taken in the village Gram Sabha or Panchayat which was not recorded and which was questioned, or not followed later on. What were the consequences?

Step 2 : Elicit the answers for the above and **sum up** by using the *Content 4.1* above.

Stop and Check!

Are participants able to list down reasons for recording decisions taken in the WDA?



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Conflict Resolution



Module Overview:

Programmes promoting the Management of Natural Resources often create conflicts or cause latent conflicts within a community to surface. If the aim of these programmes is to address equity, to involve all the people in the management of private and common property resources, and to promote access to resources by all, conflict is bound to arise. In this process, local conflicts, which at times are latent and deep rooted in the community, get triggered off. The WDAs are heterogeneous groups of large, small and marginal farmers having land in a particular micro-catchment. This diversity makes working in a team difficult. Resolving a conflict situation is an art, which the people involved in the project need to learn. They also need to understand that bringing a conflict situation into the open in order to resolve it is more helpful than to sweep it under the mat.

Sessions

- | | | |
|----------|---------------------------|---|
| 1 | Topic | : Understanding conflicts |
| | Duration | : 1 hour |
| | Methods used | : Problem solving exercise, brainstorming, games |
| | Materials required | : Chart paper and markers, alternatively chalk and black board |
| 2 | Topic | : What happens if conflicts are not resolved in time |
| | Duration | : 1 hour 15 minutes |
| | Methods used | : Brainstorming, story telling, showing pictures, lecture |
| | Materials required | : Stories related to the subject, chart paper and markers, pictures |
| 3 | Topic | : Mechanisms of conflict resolution |
| | Duration | : 1 hour |
| | Methods used | : Lecture, role play using fish-bowl exercise, group discussion |
| | Materials required | : Chart paper and markers |

Total Duration: 3 hours 15minutes

Module Aim and Objectives:

This module tries to equip the WDA members with skills to identify the conflicts (latent and potential) and to deal with them as and when they emerge. It advocates a win-win situation to safeguard or promote everyone's interests, as far as possible.

At the end of this module the participants will be able to:

- Explain what conflicts are, why they arise and what are the consequences if conflicts are not resolved at the right moment
- List out various ways of resolving conflict
- State the best possible outcome of a conflict resolution



Understanding Conflicts

Session Objective:

At the end of the session the participants will be able to:

- explain what conflicts are
- explain why they arise

Session Duration: 1 hour

Methods Used: Problem solving exercise, brainstorming, games

Materials Required: Chart paper, marker, alternatively chalk and black board

CONTENT

Content 1.1: Understanding Conflict

People have set ways of thinking which are influenced by their family, upbringing, the school they attended, their physical environment, their friends, the degree of exposure they have had, etc. As a result, the way people react to any issue will also be different. If the issue under discussion is a general one (which does not affect the individual), then it is discussed and debated but often not carried further. Everybody is free to hold different opinions. But if the issue is one, which has direct or indirect impact on individuals, then the debate often gets extended to confrontation when everybody wants their opinion to prevail. Conflicts arise not so much because of differences in opinions, but because people refuse to listen to and understand other's points and want to prove that *only* the opinion that they hold is right.

Conflicts arise and get aggravated because of:

- differences in background, perception, needs, attitudes, way of thinking
- lack of mutual trust
- poor communication
- lack of openness to other's views
- rigidity in holding and proving ones' point
- perceived injustice or inequitable distribution of benefits
- traditional rivalry

In a diverse group like a WDA, conflicts are natural and inevitable. Care should be taken to handle these conflicts with tact and in an organised manner.



Content 1.2: Problem Solving Exercise

Few cases for problem solving that can be used to understand conflicts:

- Farmers with good lands in the lower reaches near the drainage point are objecting to erosion control measures in the upper reaches because it will deprive their fields of silt, which they harvest. How will the WDA persuade them to allow implementation of soil erosion mechanisms in upper reaches?
- Farmers in the middle reaches of the watershed have broken their bunds during the recent heavy rains. This has created problems for farmers owning lands lower down. There is a serious conflict between landowners in the two locations. How will the WDA solve this problem?
- WDA members have decided to protect wasteland in their watershed so that it can regenerate. Some non-land owning families who are dependent on this wasteland for grazing their animals, harvesting fodder and fuel, have been negatively affected due to this decision. This has created conflict between the WDA and the landless families. How will the WDA resolve this?
- Two people want to become the President of the WDA. How should this be resolved so that there is no on-going tension if one is elected?
- One member in a WDA does not implement the treatment measures according to plan. This causes damage in the neighbour's field. How will the WDA handle the situation?



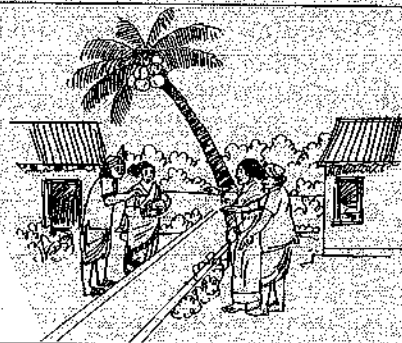
Facilitator's Note: The facilitator should select some cases from the field to be given for the role play.

Process:

Step 1 : Story Telling: Narrate the story of a coconut tree given below:

Story telling

There was once a coconut tree, which had its roots on one person's land, but the coconuts fell on his neighbours' roof. The neighbour claimed ownership of all the coconuts that fell on her roof, which the owner of the tree disputed. Whom do the coconuts belong to? How can they resolve this dispute?



Step 2 : Brainstorm the participants for their opinion.

Step 3 : Play the 'perception' game.

Step 4 : Analyse the story and the game using **Leading Questions** like: Why do you think conflicts arise in a group? Refer *Content 1.1* for analysis.

Step 5 : Role-play: Divide the group into 2 – 3 sub-groups. Give each of the groups a case involving a conflict situation, to be solved. Examples of few cases are given in *Content 1.2*.

Step 6 : Appoint a few observers from among the participants to make a note of how each group deals with the issue causing the conflict and how they arrive at a solution.

Step 7 : After each group conducts the role-play ask the participants and the observers for their observation on the process of conflict resolution.

Leading Questions:

- What was the root cause of the conflict?
- Was it a real conflict or was it just misunderstanding that caused the conflict?
- What do you think about the process followed for resolving the conflict?

Step 8 : Sum up by explaining that conflicts arise when everyone tries to establish that what they believe is the only right way. Also explain that conflicts are natural and inevitable in a group which is as diverse as the WDA. (*Refer Content 1.1 for summing up*)

Stop and Check!

Are the participants able to explain what conflicts are and why they arise?



Session: 2

What Happens if Conflicts are not Resolved in Time?

Session Objective:

At the end of the session the participants must be able to explain the consequences if conflicts are not resolved in time.

Session Duration: 1 hour 15 minutes



Perception Game:

Ask the participants to sit in a circle and place a mug or a cup (with a handle) in the centre of the circle. Pass small pieces of paper to the participants and ask them to secretly write down which side of the mug/cup the handle is on. (If the participants are illiterate, approach a few participants from various positions in the circle and ask them to whisper the answer in your ears). Everybody's answers will vary depending on which side of the cup the person is sitting, Some may say left, some may say behind, others may say front.



Methods Used: Brainstorming, story-telling, showing pictures, lecture

Materials Required: Stories related to the subject, chart paper and markers, pictures



Facilitator's Note: Keep a few stories related to the session ready.



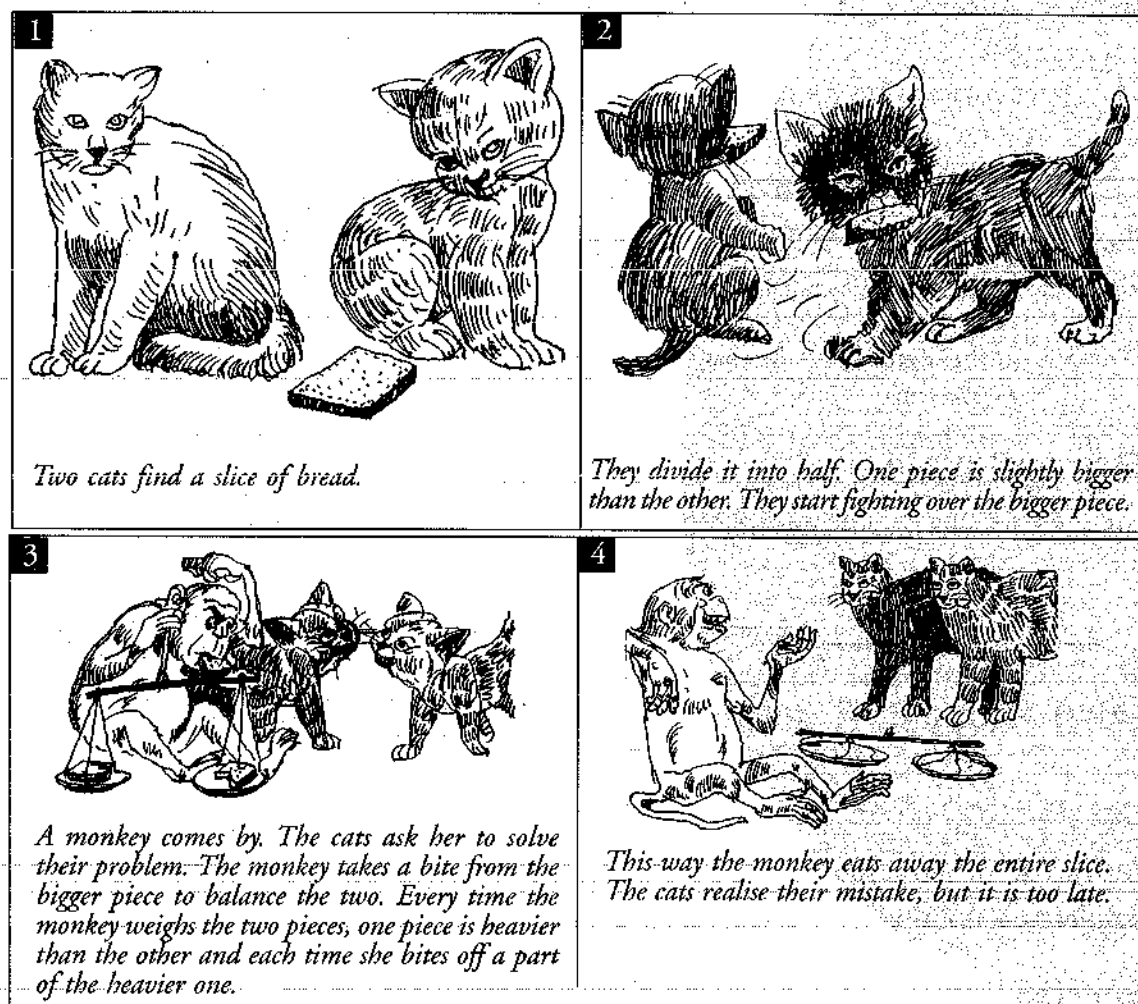
CONTENT

Content 2.1: Consequences of Conflicts Remaining Unresolved

- Unresolved conflicts can adversely affect relationships and hinder normal functioning of the group.
- Smaller issues might grow more complex if not resolved quickly
- An external person might use the conflict in a group as an opportunity to promote his/ her interests, which will weaken the group.

Content 2.2: Stories You can Tell

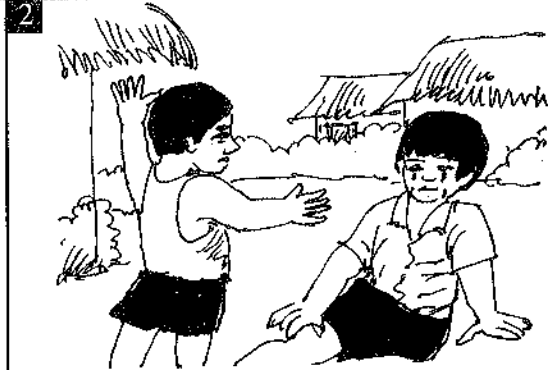
Story 1: The Greedy Cats and the Monkey – an example of how an external person can make use of a conflict situation in a group to destroy it.



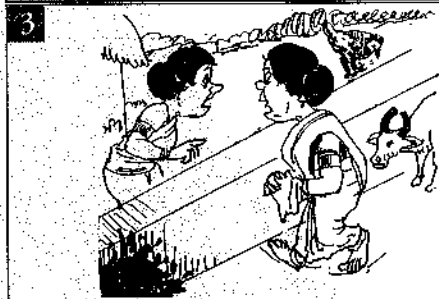
Story 2. A spark neglected burns the house



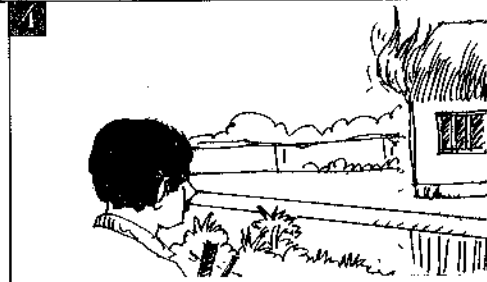
Ramu and Ashok were very good neighbours having a very cordial relationship.



A small fight between the children of the two families changed things for the worse.



The women of the house did not easily forget this incident. After a few months when Ashok's chicken happened to wander into Ramu's backyard, Ramu's wife refused to hand it over. To get even, when one of Ramu's cows destroyed a part of Ashok's compound wall, Ashok's wife refused to give back the cow.



These fights kept on growing and gradually Ashok and Ramu also got involved in the fights. One night Ramu saw a small spark on the thatched roof of Ashok's house. He knew that there was nobody in the house. Remembering his differences with Ashok, he just ignored the spark and went to bed.



Later that night Ramu woke up to see his own house on fire.



When he rushed out with his wife and children, he saw that Ashok's house had completely burnt down and the fire had spread through a haystack in his own backyard to his house.

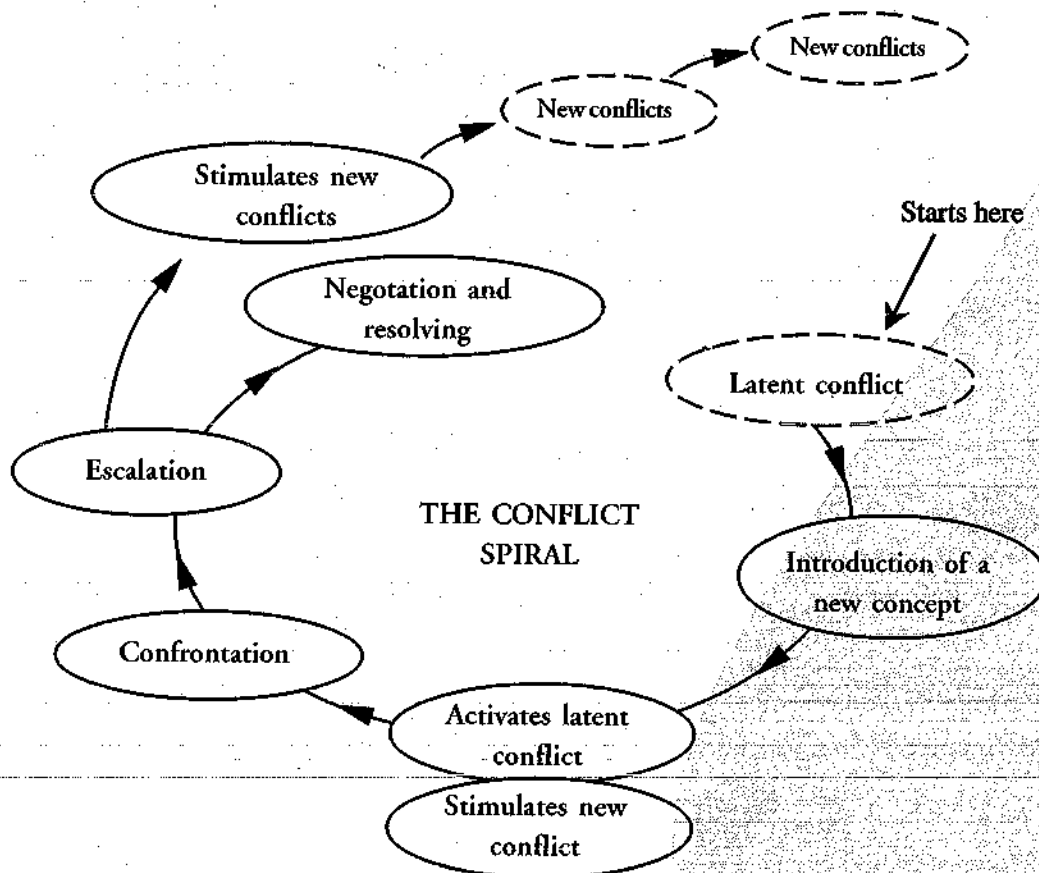
Message: Many times conflicts are born out of minor problems. If these problems are not resolved in time, they often escalate and the situation gets out of control and causes more damage.

Process:

Step 1 : Tell the stories of 'The greedy cats and the monkey' and 'A spark neglected burns the house'. (refer Content 2.2)

Step 2 : Brainstorm the participants about the lessons from the stories. Explain the lesson of the stories in the context of their WDA. (refer Content 2.1)

Step 3 : Sum up by explaining the conflict spiral given below.



Explanation of the Spiral:

There exists a latent conflict among the group members → a new concept or issue is introduced → latent conflict surfaces or new conflicts are created → there is direct confrontation between parties concerned → the problem magnifies/escalates → a step to resolve this conflict needs to be taken (negotiation and resolving) → if this is not done it may spiral into many more conflict issues.



Stop and Check!

Are the participants able to explain what happens if conflicts are not resolved in time?

Mechanisms of Conflict Resolution

Session Objective:

At the end of the session the participants will be able to:

- list out various ways of resolving conflicts
- state the most acceptable outcome of the conflict resolution process

Session Duration: 1 hour

Methods Used: Lecture, role-play using fish-bowl exercise, group discussion

Materials Required: Chart paper and markers

Facilitator's Note: Keep a few cases ready to be given as an exercise for role-play.
(Confer Readings for the Facilitator at the end of this session)



CONTENT

Content 3.1: People's Approaches to Conflict Resolution

Resolving conflict is an art, and there are no fixed ways of doing this. Different people have different ways of dealing with conflicts. A few of them are given below:

- **Avoidance:** Some people try to withdraw from a situation of conflict and refuse to discuss it.
- **Smoothing:** Some people cover up differences and claim that everything is fine, when in reality it is not. They are afraid of acknowledging the conflict; it is swept under the mat.
- **Bargaining:** Some people arrive at a compromise, but do not tackle the core issue/ problem causing conflict, which remains latent.
- **Forcing:** Some might also use force to make people accept a decision made by a few.

All the above-mentioned ways of dealing with conflict tend to keep it dormant and hence there is always the fear of the conflict surfacing from time to time.

- **Problem solving as an approach to Conflict Resolution:** The best way of dealing with conflicts is to accept the difference and to resolve it in a collaborative way. This is considered to be appropriate to arrive at a win-win situation in a WDA.

A problem-solving approach implies open recognition of the actual factors causing conflict, an acceptance of different ways of thinking and a desire to change one's stand if required.



Content 3.2: Problem Solving Approaches

In a problem-solving mode of dealing with conflicts, often there is a need for an outside intervener. A few problem-solving approaches are listed below:

- **Facilitation:** In this technique, a neutral third party's assistance is involved - usually an NGO. The neutral party helps in designing and conducting a productive meeting with the conflicting parties. A facilitator may help in time management and in recording or keeping track of agreements, etc. but the solutions to the conflicts are developed by the parties concerned.
- **Mediation:** Mediation also involves the assistance of a neutral third party in a negotiating process where the mediator assists the disputing parties in a more specific manner to reach an agreement. The mediator does not direct the conflicting parties or make decisions but may make suggestions.
- **Arbitration:** Arbitration also involves a neutral third party's assistance. The conflicting parties voluntarily submit the case to the neutral third party for decision-making. The parties do not meet face to face to resolve their differences; however, the decision to approach a third party is taken together by them
- **Conciliation:** In this process, a neutral third party takes the initiative to communicate separately with the conflicting parties. The main purpose is to reduce tensions and agree on a process for resolving the dispute. The conciliator merely facilitates the process and does not direct the parties.
- **Negotiation:** This is a voluntary process in which conflicting parties meet face-to-face to reach a mutually acceptable resolution of the issue. There is no involvement of a third neutral party. Negotiations are typically unstructured and often lack formal procedures such as 'rules of the game' or in what order issues will be addressed.



Note: A conflict resolution process may involve one or more of the above approaches. For e.g. it may start with facilitation or even arbitration and can end with negotiation.

Content 3.3: The best conflict outcome – a WIN-WIN situation

There are outcomes or results of conflict situations. The outcomes of a conflict resolution process can be broadly grouped into four categories:

1. **Lose-Lose** – where one person wants the conflict to deteriorate to the point where both parties are worse off than before. The attitude that this person wears is '*if I cannot win this situation, I will see to it that even you do not win it*'. Where such a situation exists it may be advisable to start with conciliation.
2. **Lose-Win** – where one person takes a position that '*I am ready to be on the losing*

	Lose	Win
Lose	Lose-Lose	Win-Lose
Win	Lose-Win	Win-Win

side for the sake of peace' (this outcome could help to solve some issues in the WDA, but it cannot happen too often; if it does, members affected would leave) OR *'It's OK if I lose this time. Next time I will take you on.'* (This outcome definitely weakens the WDA). Mediation can help in this case as a first step.

3. **Win-Lose** – where a person feels that he/she can win only if he/she can beat the other person. Hence the person's entire energy is directed to see that the other person loses to make him/her the winner. (This outcome is most certainly destructive for the WDA). Conciliation may be useful here as a start.

4. **Win-Win** – In this situation, creative solutions are sought that provide benefits to both parties. All parties feel good about the decision and feel committed to the action plan. The thinking of the parties involved in this situation will be: *'It's not your way or my way, it's simply a better way to achieve our objectives.'*

Conflict resolution should try to end in a WIN-WIN situation, where both the parties either actually benefit or where both the parties at least agree to disagree agreeably (in which case, the parties would settle the matter in a way mutually agreeable, though neither may benefit), and then proceed with their programmes.

Process:

Step 1 : Lecture: Explain the various approaches adopted by people in resolving conflicts. Refer Content 3.1 and 3.2.

Step 2 : Role-play: Present the following case to the participants.

A Case for Role-Play:

There is a big tank in the catchment of Nagamanakere Halla watershed which belongs to the entire village. The tank was de-silted under the tank rehabilitation programme. The farmers owning land in the watershed decided to apply its silt to their fields. The non-land owners of the village who were basically agricultural labourers and who were not a part of the programme objected to this and prevented removal of silt. Their stand was – if the tank belonged to the entire village, why should the benefits go to only a few? Being a WDA member how will you resolve this issue?

Ask the participants to conduct a **fish-bowl exercise** to demonstrate how to resolve the conflict. The inner circle tries to resolve the conflict with the help of a facilitator. Observers are in the outer circle.

Step 3 : Ask the participants in the outer circle about their observations.

Leading Questions: for the outer circle

- What are your observations about the way the entire group started discussing the problem?
- Who raised the issue first and what were the first reactions?
- Do you think the process of resolving the conflict was properly handled?

- Did the interveners involved help the parties concerned in resolving the conflict?
- Do you think justice was done to all? etc.

Step 4 : Ask the participants in the inner circle about their feelings while playing different roles.

Leading Questions: for the inner circle

- What are your reactions while playing various roles you were assigned?
- Did you feel you have done justice to the case?

Step 5 : Now question the inner circle and the outer circle together.

Leading Questions: in general

- How did the two parties involved in the issue feel at the end?
- Did they feel they have won or lost the case?
- Were they satisfied with the outcome? etc.

Step 6 : **Sum up** by explaining that the best way of resolving a conflict is to achieve a WIN-WIN situation in the end (*refer Content 3.3*). This will require some compromise on both sides – if both parties consider that they have more to gain in the long term than they have sacrificed in the short term in order to arrive at a compromise, then a win-win situation will last.



Stop and Check!

Are the participants able to explain various mechanisms of resolving conflicts? Are they convinced of the long term value of a win-win situation? Have they acquired some idea of how to foster a process that arrives at a win-win situation?

Readings for the Facilitator



Few examples of how conflict situations in a watershed programme were resolved in the WDA

1. Case of Conflict Resolution in Muneswara Watershed

Muneswara watershed in Kollegal taluk of Chamarajanagar district started in March 1999 with 35 members.

During the implementation of the watershed activity, a dispute arose between two WDA farmers, Shantamallaiah and Mallanaika who had lands adjoining each other. The cause of the dispute was a piece of uncultivable waste land along the nala, adjacent to the *patta* land of both farmers. Mallanaika had recently started cultivating the waste land adjoining his land. Coincidentally, at the same time, his health started to deteriorate. He was advised by an astrologer to convert the waste-land having three corners (according to *Vastu* three cornered site brings bad luck to the owner) into a rectangular shape. In order to do this Mallanaika encroached a part of the waste-land belonging to Shantamallaiah.

The whole issue came to light when under the land levelling activity, Mallanaika got the entire land levelled – including the waste land he had encroached. It was then that Shantamallaiah got to know about the encroachment and the two farmers got into a massive fight. This issue was brought to the notice of the WDA. After a lot of debate and discussion, the WDA decided to constitute a committee of four WDA members along with two other village leaders. The committee visited the disputed land and had a discussion with both the farmers.

Since Mallanaika had got the levelling done on Shantamallaiah's land without his approval, the committee asked Mallanaika to bear half the burden of land treatment on the encroached land and revert the land back to Shantamallaiah. Since Shantamallaiah was to benefit out of this treatment, he was asked to contribute the other half of the costs. The committee took their agreement in writing and asked them to keep peace.

2. Case of Conflict Resolution in GM Doddy Watershed

GM Doddy WDA was formed in the year 1995 with 36 farmers from 5 villages in Odeyarapalya, Kollegal taluk of Chamarajanagar district. The Watershed treatment work was implemented as a grant for common land activities and on a 100% loan basis for individual land based activities. The concerned farmers contributed 30% of expenditure to the WDA at the time of work implementation; the remaining 70% was given as a loan from the WDA, which was to be repaid in four years, in four instalments to the Association.

Mr. Nagendraswamy with 10 acres of dryland was a member of the WDA. He had taken up land treatment work on his land towards which he had contributed Rs.745 and had taken a loan of Rs.4000. In the first year, he attended regular meetings and repaid the first instalment of Rs.1000 to the Association on time.

The conflict between Nagendraswamy and the WDA started at the time of repayment of the second instalment when Nagendraswamy refused to pay the amount due. He also stopped attending the WDA meetings. Talking to Nagendraswamy and trying to convince him to repay, did not work. That's when the WDA members came up with a strategy - the members noticed that Nagendraswamy was not cultivating all his lands on his own but leased out 2 acres of land to other members. The Association then asked one of its members, Mr. Puttaraju to take the land on lease for a year and instructed him to take WDA members along with him at the time of settling the lease amount, but to keep this matter a secret. Accordingly, Puttaraju informed the association when he was going to Nagendraswamy's house to settle the lease amount. Other members of the WDA followed him. Just before Puttaraju handed over the money, the WDA members demanded repayment of the loan amount. Realising that he was trapped, Nagendraswamy instructed Puttaraju to repay the sum to WDA.

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Ensuring Equity in a Watershed Programme



Module Overview:

Watershed programmes are largely land-based activities; hence it is natural that benefits go primarily to land owning families. Watershed interventions therefore tend to widen the gap between the rich and the poor. They increase the already existing imbalance in the rural community. In order to prevent this from happening, interveners and the WDA members need to consciously make efforts to ensure that the interests of vulnerable groups are incorporated in the design of the programme itself and that all involved are committed to protecting and enhancing the livelihood base of the poorer and marginalised sectors.

Module Aim and Objectives:

The aim of this module is to sensitise the WDA members about the equity issues in a watershed programme and to commit them to addressing these issues in the process of watershed development. This module also provides the tools to identify the vulnerable groups in the community and helps the participants to evolve action plans to take care of the interests of the vulnerable groups.

Sessions

1	Topic	: Who are the primary and secondary stakeholders in the watershed?
	Duration	: 30 minutes
2	Topic	: Who uses what resources in your watershed?
	Duration	: 1 hour
3	Topic	: What is equity?
	Duration	: 1 hour
4	Topic	: Challenges in ensuring equity
	Duration	: 45 minutes
5	Topic	: Extent to which equity has been addressed in your watershed programme - an analysis
	Duration	: 1 hour
6	Topic	: Strategies to promote equity in watershed management programmes -role of Self-Help Affinity Groups in promoting equity
	Duration	: 45 minutes
	Methods used	: Brainstorming, guided dialogue, case discussions, games, lecture, sub-group work, group discussion
	Materials required:	Refer Individual Sessions
	Total Duration:	5 hours



Facilitator's Note: This training module must be conducted before the preparation of the microplans and repeated within six months of planning, so as to help the WDA members to assess whether adequate measures have been incorporated to address equity.

At the end of this module the participants will be able to:

- Explain why it is important to address the issue of equity in the course of watershed development and management
- List out the various stakeholders in the programme, particularly the vulnerable groups
- List out the resources on which the vulnerable groups depend for their livelihoods
- Analyse to what extent equity issues are being currently addressed in their watershed
- Understand the role of Self-help Affinity Groups (SAGs) in promoting equity

Who are the Primary and Secondary Stakeholders in a Watershed?

Session Objective:

At the end of the session the participants will be able to identify the primary and secondary stakeholders of their watershed programme.

Session Duration: 30 minutes

Methods Used: Brainstorming and guided dialogue

Materials Required: Chart paper and markers

CONTENT

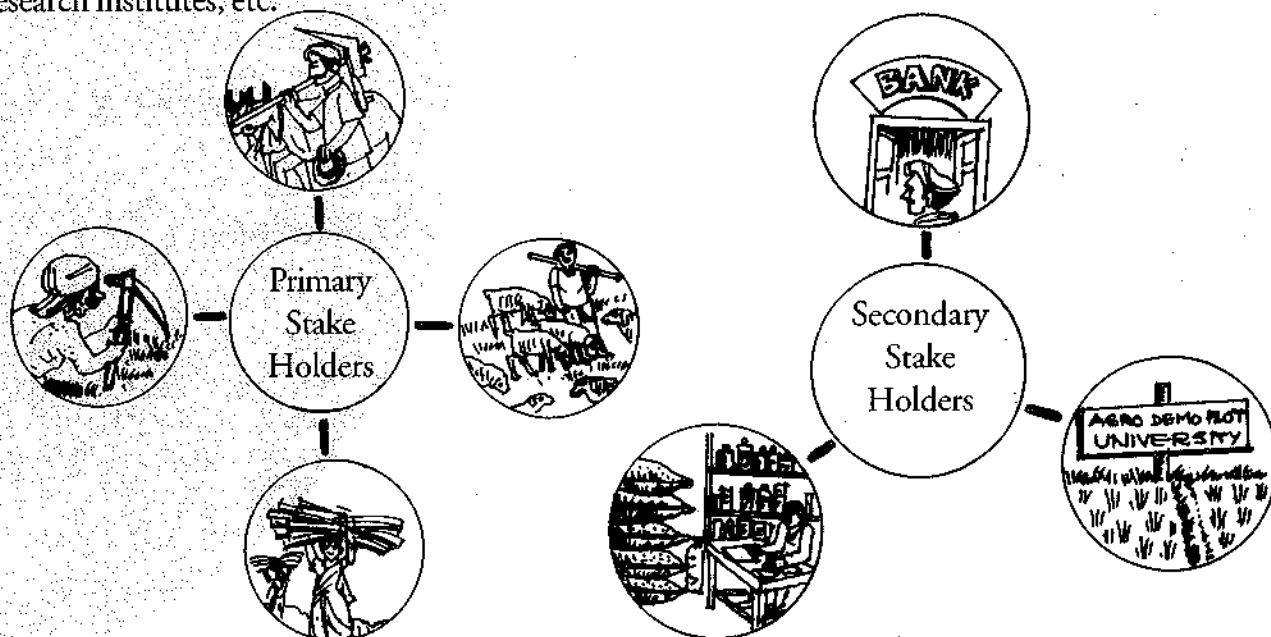
Content 1.1: Primary and Secondary Stakeholders

Primary stakeholders are those who are dependent directly on the watershed resources for their consumption/ food needs or for income generation. They generally live within the micro - watershed or in an adjacent one. However a few who use the common lands for collection of wood or for grazing cattle may also belong to nearby villages.

Examples of Primary Stakeholders: Land owners, landless people depending on fuel wood for cooking, cattle owners, people using water resources like tanks, open wells, bore wells, etc.

Secondary stakeholders are those who benefit indirectly from the development of a watershed. In most cases the WDAs build linkages with the secondary stakeholders.

Examples of Secondary Stakeholders: Banks, dealers in agricultural inputs, agriculture research institutes, etc.



Process:

Step 1 : Guided dialogue: Lead the participants to list out various stakeholders in a watershed programme and their respective stakes in it. Probable answers are given in brackets at the end of each question

Key Questions:

- Why do you want to implement the watershed programme?
(Probable Answers: To prevent soil erosion; to increase land productivity; to regenerate wastelands; to reduce poverty; ...)
- Who benefits directly from the watershed programme?
(Probable Answers: People who own land; farmers in lower reaches; big farmers; ...)
- Is there anybody else who will benefit from the watershed programme?
(Probable Answers: Landless people, marginal farmers depending on labour availability in the watershed; women who generally go long distances to wash clothes or to collect drinking water will benefit with increased water availability within the village due to watershed activities; ...)

Step 2 : Brainstorming: Lead the participants into listing down the direct and indirect beneficiaries.

Key Question: Can you now list down separately who benefits directly from the watershed programme and who benefits indirectly?

Step 3 : Elicit answers for the above and list them separately in their respective categories. If required supplement the list with categories mentioned in *Content 1.1*.

Stop and Check!



Are the participants able to list out the major primary and secondary stakeholders in their watershed?

Session: 2



Who Uses What Resources in Your Watershed?

Session Objectives:

The purpose of this session is to sensitise the participants about protecting and promoting the interests of the vulnerable sections in the watershed. At the end of the session the participants will be able to identify how interests of women, the poor and other vulnerable sections are dependent on watershed resources.

Session Duration: 1 hour

Methods Used: Brainstorming

Materials Required: Stakeholders analysis chart, chart paper and markers

CONTENT

Content 2.1: Analysis of Resource Users

Use the sample chart given below :



Stakeholders Analysis Chart

Total number of families in the village:

Occupational / economic classification of families from the village	Landless poor	Landless non-poor	Rural artisans	Small & Marginal farmers	Big farmers
No. of families under each category →					
Watershed Resources →					
↓	No. of families under each of the five categories dependent on various watershed resources				
1. Forest Produce					
					Resources collected by: Women/Men/ Both
Fodder	--	--	--	--	--
Fuel wood	--	--	--	--	--
Fruits	--	--	--	--	--
Timber	--	--	--	--	--
Honey	--	--	--	--	--
Leaves	--	--	--	--	--
Bamboo	--	--	--	--	--
Grasses etc.	--	--	--	--	--
2. Common water bodies					
					Resources used by: Women/ Men / Both
Cattle pond	--	--	--	--	--
Tanks	--	--	--	--	--
Open wells	--	--	--	--	--
Stream, etc.	--	--	--	--	--
3. Land					
					Resources used by: Women/ Men / Both
Owner Cultivated land (private)	--	--	--	--	--
Cultivable Fallow Land (private)	--	--	--	--	--
Uncultivable Wasteland (Government)	--	--	--	--	--
Pasture land (gomala, gochar)	--	--	--	--	--
Temple land	--	--	--	--	--
Forest, etc.	--	--	--	--	--
4. Quarry or any other business dependent on the resources of the watershed					
					Women/ Men / Both

Process:

Step 1 : Brainstorming: Evolve a table/ chart similar to the one given in *Content 2.1* by brainstorming the participants about the various resources in their watershed and their users.



Facilitator's Note: The format given in the *Content 2.1* is just a sample. The community you are working with might have a different structure with regard to occupation or economic classification. The watershed you are working in, might have different kinds of resources. Hence it is advisable to evolve the list of watershed resources and also the category of users along with the participants. However the exercise should be conducted keeping in mind its purpose – to make the participants realise the extent of dependency of non-land owners on the watershed resources. Baseline and PRA data can be referred to, during the exercise.

Leading Questions:

- What are the various resources in your watershed? List them down.
- How will you categorise the families in your village according to their occupation or their economic status (eg. small farmers, big farmers, traders, labourers, sharecroppers etc.)
- How many families belong to each of these categories.
- How many of the families categorised by you as landless poor depend on common resources like water bodies, common lands, and forests?

Step 2 : Elicit answers. Fill the information in the format prepared.

Step 3 : Analysis of the Table: Ask participants for their reactions to the exercise conducted.

Key Question: What do you understand from the above exercise? What emerges from the table?

(Indicative answers: Poor are dependent on the watershed resources, particularly on the common resources to a large extent; women may or may not own watershed resources but are major users; ...)

Step 4 : Display the list of stakeholders prepared during the previous session. Compare their present understanding of the users of the watershed resources with the list produced during Session 1.

Key Question: Did you learn anything more in this session about the users of the watershed resources when compared to the previous session?

Step 5 : Sum up by giving the following **Key message:**

There are various people dependent on the watershed's common resources other than the people owning land in the watershed. Also among the landless category, the degree of dependency varies. Women's contribution to agriculture and also their needs from the watershed have to be recognised. The interests of

all these people vary; hence while preparing micro-plans or while formulating a watershed programme, the requirements of each group, particularly of the poorer families and women must be kept in mind and included in the plan and budget.

Stop and Check!

Are the participants able to explain how the women, the poor and other non-land owning families are dependent on watershed resources especially on the common resources like water bodies, forests, waste land, etc.?



Session: 3

What is Equity?

Session Objective:

At the end of the session the participants will be able to describe equity by means of appropriate examples.

Session Duration: 1 hour

Methods Used: Case discussions, brainstorming and lecture

Materials Required: Stakeholders analysis chart from Session 2, cases or field examples to differentiate between 'equity' and 'equality', chart paper and markers

CONTENT

Content 3.1: Equity and Equality

The meaning of equality and equity in the context of a watershed programme.

Equality – Equal opportunities offered to people (However this pre supposes that all the people involved can avail of these opportunities equally – that they have the same/similar resource base, equal confidence, skills and ability to take risks with regards to investment in a watershed programme).

Equity – Unfortunately in a traditional village situation, the above is not true. People have been affected by traditional caste and class relations, by different economic and resource bases; their confidence and skills also differ. Therefore, interveners whose objective is to narrow the gap between the resource rich and the resource poor have to invest directly in promoting the interests of the poor and in changing exploitative relations. This "bias" towards the poor is what equity is about. In a watershed context, special emphasis needs to be given to promote equity since the structure of a watershed programme is itself biased in favour of the resource rich.



Equity and equality are often confused with each other. But in fact there is a lot of difference between the two words.

Equity is something, which you can justify morally. For example: It would not be fair to ask the landless families who get few benefits out of the common land treatment to contribute equally as the families benefiting from treatment on their private lands. The reason being that, often the benefits from common land treatment are not too tangible and even if they are, they will have to be shared among various stakeholders; these too are generally long term benefits. However, in private land treatment, where benefits are more tangible and short-term, the individual contributions must definitely be higher than in the common land treatments. Hence 'equity' here refers to the fact that although all of the beneficiaries will have to contribute towards the programme, the contribution will be in proportion to the benefits foreseen.

An example of equality: In Talavadi project of MYRADA, under the community irrigation scheme, 7 small farmers share the water from a bore-well as well as the costs to operate the water pump equally on rotation basis.

Examples of Policies/Strategies that Promote Equity in Public Life:

- Government has introduced reservation for the SC/STs and women. This is a way to compensate for their long suppression by society because of which they have not had the opportunity to access similar kind of facilities as the other groups.
- In a hospital a serious case or emergency receives priority for treatment over a simple cold or cough. Here the principle of equality – as in first come first served – does not operate.

Sometimes equity may also mean equality – like equal pay for equal work, equal food for growing children whether they are boys or girls.

Process:

Step 1 : Brainstorming: Refer to the Stakeholders Analysis done in Session 2. Ask participants if in the planning and budgeting for the watershed programme, they have been sensitive to various stakeholders, especially the vulnerable groups.

Key Question: Does your watershed programme take into consideration the interests of all the stakeholders mentioned by you in the table?

(Probable answers are: Right now, only the landowners have been involved; the labour component of the watershed programme has been given to the landless;)

Step 2 : Present the three cases given below.

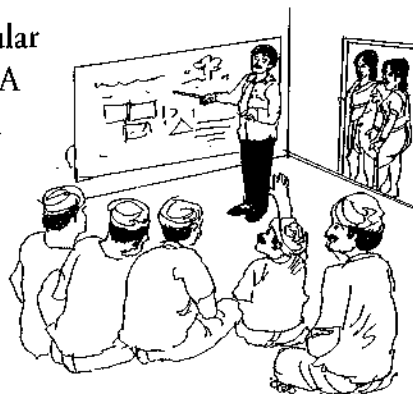
Case 1

A new watershed has been delineated for treatment and the micro-plan is being prepared. There is a hillock in this watershed, which caters to the fodder and fuel needs of many poor families in the village. With a view to conserve natural resources and to help regeneration in the upper reaches, the WDA has decided to protect the hillock and ban grazing and cutting.



Case 2

Watershed activities are to be taken up in a particular watershed. PRA is conducted in the village. The PRA exercise reveals that women are occupied with work for 17 hours a day and out of that, they spend 7-8 hours in agricultural work. A few days later a training programme on appropriate agricultural practices is organised. Only men have been invited for this training.



Case 3

A WDA is functioning in a village. All its members are landowners. The WDA has decided to afforest a dried tank bed since the tank no longer collects water. The land belongs to the entire village. The members have decided to take turns to protect the saplings planted in the dried tank bed for 10 years. The WDA invested in fencing and planting of saplings. The landless villagers were involved for labour and were paid for the same. The WDA has decided that 90% of the benefits will go to the WDA and 10% will be given to the Panchayat.



Ask the participants to reflect on each of the cases.

Guiding questions can be:

Is the decision in each of the cases justified? What would your WDA do in such cases? Have there been similar instances in your village? Give examples.

Step 3 : Sum up the session by explaining the concept of equity in a watershed context. Explain the differences between equality and equity. (refer *Content 3.1*)

Step 4 : Clarify doubts if any.

Stop and Check!



Are participants able to define or state the concept of equity and give reasons as to why it needs to be addressed in a watershed programme? Are they clear about the difference between equity and equality?

Session: 4

SESSION FOUR

Challenges in Ensuring Equity

Session Objective:

At the end of the session the participants will be able to explain how a watershed programme tends to overlook the objective of equity.

Session Duration: 45 minutes

Methods Used: Game, brainstorming, lecture

Materials Required: Chart paper and markers; for the game: marbles, wooden blocks and chalk

CONTENT



Content 4.1: Challenges in Ensuring Equity

Watershed programmes are largely land-based activities and hence the natural tendency is to concentrate on the people owning land. The larger the land holding size, the more will be the activities undertaken, and consequently the greater will be the investment and the corresponding benefit. Thus the person already with resources tends to get more benefits.

Also, investments tend to be made on lower lands which are more fertile, as people's participation and contributions come more easily. Consequently, watershed development activities tend to increase the gap between the 'haves' and the 'have-less/have-nots'. In order to avoid this, a conscious effort has to be made to implement the programme in such a way that it has an inbuilt component that promotes the livelihoods of the landless and the marginalised sectors.



Another reason why the benefits of a watershed tend to go to the bigger farmers is that they are often the ones who come forward to take up various activities proposed under the programme. Having crossed the threshold of food security and livelihood security, they are in a position to absorb risks which exist in any investment made on land. The other categories of people – the small and marginal farmers, have smaller stakes in the programme. Having to struggle to meet their basic consumption and livelihood needs, they are not in a position to take risks on their investments. The position of women is similar. Even though their contribution in a rural economy is very high, women hardly find any place in the design and budget of the watershed programme. In order not to add on to the already existing imbalance, we need to consciously make efforts to see that the interests of these vulnerable groups are incorporated in the design and budget of the programme itself.

Process:

Step 1 : Conduct the Marble Game (*refer box below*)

The Marble Game

Materials Required: 40-50 marbles, chalk, 3 blocks of wood of varying sizes.

Procedure: Draw a circle on the floor using chalk, in the centre of the hall. Place the marbles in it. Ask a few participants to volunteers (both men and women). Give this group the largest block of wood and ask them to stand at a distance of 5-6 feet from the marbles. Call a few more volunteers (men and women).

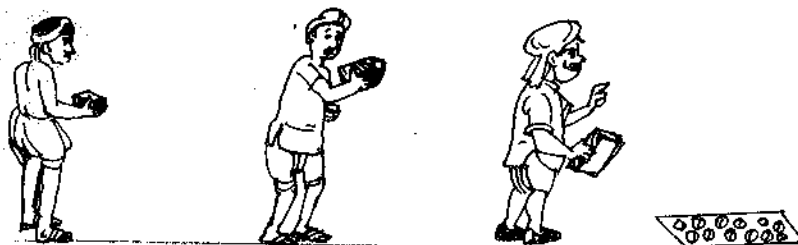
Give the second group a smaller block of wood and ask them to stand around 10-12 feet away from the marbles.

The rest of the participants should be asked to stand at the door and are given the smallest block. Ask the first group of volunteers to hit the marbles with the block and try to displace as many as possible.

All the marbles outside the circle go to the group. Similarly the second group is also asked to aim at the marbles and collect whatever is displaced outside the circle. The third group gets whatever remains inside the circle. (If more marbles are left after the second groups attempt, the facilitator asks the third group to aim and win the displaced marbles). The group collecting the highest number of marbles is the winner.

Analysis: Relate The Game to Equity in Watershed - The marble heap symbolises the limited resources available to everyone in the watershed. The size of the block represents the means available to the participants to acquire the resources.

The distance from the marbles symbolises their access to the resources. Those



who have better (closer) access to resources, grab all the resources. These are generally the well-to-do people in the watershed. The poor who hardly have any resources or access to resources are marginalized because of two reasons – firstly because their capacity to take risks is low, hence they do not volunteer to come forward; secondly, the nature of the watershed activities being land based, it tends to give more importance (in decision making) to families with larger and better land holdings and to leave out people who do not own lands.

The poor can improve their livelihoods through a watershed programme by organising themselves, by improving their capabilities and their knowledge and by asserting their rights over the common resources. But the powerful too have a role in voluntarily opening out the access to the resources to the poor and enabling a more equitable sharing of common resources.

Step 2 : To analyse the game, probe the participants with the following questions. The suggestion regarding how to relate each of the questions with the objective of promoting equity in a watershed programme is given in brackets.

Leading Questions:

- **How do you feel about the game? Can you draw parallels between this game and a watershed programme?**

(The game is unfair – because the people with the big block got to stand closest to the marbles, all those who followed later had fewer and fewer marbles to win! Similarly a watershed programme does not distribute benefits equally if left to itself; a person owning more lands in the valley will naturally benefit more from watershed treatment).

- **Who got the first chance and why were they given first chance?**

(People who volunteered first got the first chance. In a watershed programme too, there are some people who are more interested in the programme than the others as they anticipate immediate benefits. Many of these people are natural leaders who volunteer for everything. It is these people who catch the eyes of outsiders and tend to get preference in terms of training, exposure, etc.).

- **What is it in the first set of volunteers, which made them take a risk and volunteer themselves without knowing the complexities of the programme? Are they more educated? Do they belong to upper caste? Are they rich? Is there some affinity between these people who volunteered first?**

(People who try to use every opportunity are generally the ones who are already a step ahead in life. They are either educated or have sound economic backing or belong to the upper caste, etc. Their stability and backing gives them confidence to take risks. They are better equipped to bear a loss, if there is any).

- **Who are the types of people who will not easily come forward for the watershed programme?**

(Women, lower caste, tribals, the landless - because of their being suppressed for a long time, they are not confident of themselves. They hesitate to look at new opportunities. The interveners often find it convenient to proceed with people who are most willing, even though they are generally the people who are already one step ahead in life).

- Were women given a chance to hit the marbles in any of the groups? What was the process involved? Do you see any parallel between the involvement of women in the game and in the watershed activities?

(Women are generally the silent onlookers in any watershed programme. Why?).

Step 3 : Sum up using *Content 4.1*

Stop and Check!

Are the participants clear about why the watershed programme tends to benefit a few who are already more privileged than others?



Session: 5

Extent to which Equity has been addressed in your Watershed Programme – an Analysis

Session Objective:

At the end of the session the participants will be able to analyse the extent to which equity issues are being addressed in their watershed.

Facilitator's Note:



This session can be conducted only if micro plans have already been prepared by the watershed institution and implementation has progressed for a few months. It should be conducted at least once a year for it to be an effective instrument in fostering equity.

Session Duration: 1 hour

Methods Used: Brainstorming, sub-group work, group discussion

Materials Required: Chart paper and markers, micro-plans of the watershed, PRA documents related to wealth ranking exercise of the watershed/ village, list of families in

the SAGs, reports on progress in implementation of the programme, physical and financial details of their programme – with activity-wise and beneficiary-wise break-up.

Facilitator's Note:



Before coming to the training the participants must be informed to get copies of the following:

- Micro-plans
- PRA documents related to wealth ranking exercise of the watershed/ village
- Category-wise list of farmers in their watershed – marginal, small and big farmers
- List of landless, artisans, etc.
- List of families in the SAGs
- List of families in other village institutions (if any)
- Physical and financial details of their programme – with activity-wise and beneficiary-wise break-up

Process:

Step 1 : **Brainstorm** the participants to find out the various categories of land-owners in the watershed. Participants can refer to the results of the wealth ranking exercise for this.

Key Questions can be:

- How many marginal, small and big farmers are there in your watershed? (If the wealth-ranking documents reflect a different way of categorising, the same can be followed)
- How much land does each of the categories own? (Total land owned by marginal farmers, total land owned by small farmers and by big farmers).

Step 2 : **Sub-group work:** Divide the participants into three sub-groups. Ask each group to work out the investment proposed/planned for the 3 categories (marginal, small, big) according to the micro-plan and also the actual investment already made. Ask one of the participants to consolidate all the groups findings in the following table:

Category of farmers	No. of families	Total land holding (in acres or Ha.)	Total budget planned (Rs.)	Total amount actually spent (Rs.)
Marginal farmers				
Small farmers				
Big farmers				

It is necessary to find out the planned activities and budget for various categories of farmers and whether the activities were implemented and budget actually spent. This will indicate whether sufficient consideration has been shown towards the small and marginal farmers both in planning and implementation. In many programmes where a percentage of the costs is required as contribution from all farmers for land treatment, the investments finally made on the small and marginal farmers lands could be much lower. The reason: small and marginal farmers may not have the capacity to make the contributions required by the programme upfront; hence the total investments may be much smaller than they need.

Step 3 : Present the above table in the plenary and ask them to analyse.

Guiding Question:

Whether the small and marginal farmers have been covered adequately under their watershed programme. If no, then why not?

Step 4 : **Brainstorm** the participants to find out if any special activities have been proposed under the watershed programme for the landless, small and marginal farmers, poor artisans and women.

Guiding Questions:

- Are there any special provisions under this programme to address the interests of the poor? If yes, what are they?
- How much is the financial provision for the same?
- Do you think it is adequate?
- What else needs to be considered?
- Are there any specific strategies planned under the 'common property resources management' that takes care of the interests of the vulnerable group – like usufruct sharing, etc.?

Under the KAWAD (Karnataka Watershed Development Society) and KWDP (Karnataka Watershed Development Project) programme a separate budget has been allocated for the vulnerable groups. This amount is routed through the watershed institutions to the Self Help Groups formed under the programme. This is an example where the interests of the poor were included in the project design. Besides, intensive training in skills to manage income generating activities is also provided for.

Step 5 : **Sum up** by reviewing the coverage of landless, the small and marginal farmers, poor artisans, women, and other vulnerable group in their watershed programme and how they have benefited?

Stop and Check!

Are the participants able to analyse the extent of coverage of vulnerable groups under their watershed programme? Do they think it is adequate or is there anything else that needs to be done to improve the economic condition of these groups and their access to the watershed resources?



Strategies to Promote Equity in Watershed Programmes – Role of Self-help Affinity Groups

Session Objectives:

At the end of the session the participants will be able to:

- describe what a Self-Help Affinity Group is
- describe the role of a Self-Help Affinity Group in watershed management programmes, especially in ensuring equity



Facilitator's Note: The facilitator should have gone through the project guidelines to find out the strategies proposed to involve the poor under the particular watershed programme.

Session Duration: 45 minutes

Methods Used: Lecture, group discussion

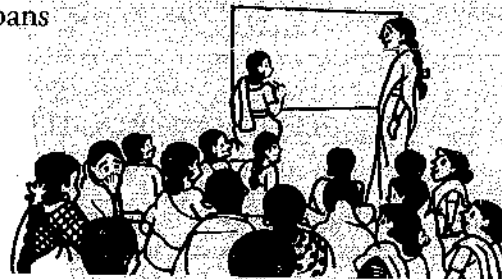
Materials Required: Chart paper and markers

CONTENT

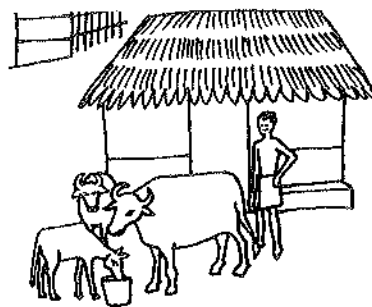
Content 6.1: Strategies and Activities to Address Equity in a Watershed

Some of the strategies that have been promoted by interveners to promote the effective participation of vulnerable groups in watershed management are given below:

- Self-Help Affinity Groups of the poor people living in the watershed have been promoted; as a result the poor had access to credit and training. This decreased their dependence for loans from the larger farmers.
- The training in institutional capacity building provided to SAGs has given them the skills and confidence to lobby effectively during meetings and outside, to promote their interests.
- In a few cases, where the owners of private fallow lands had moved out of the village, the SAGs entered into agreements with the absent landowners. The landowners would have ownership of the trees but the SAG would have the right to loppings and fodder grasses.



- While planning conservation and regeneration activities for forests, the needs of the poor who used the forest resources were taken into account. Where common lands have been protected, investment has been made and areas allocated to the poor to collect fuel, fodder, forest products etc. on which livelihoods of some families depend.



- The landless poor were given the use of tanks and check dams constructed on the common land to take up fishery activities.

- Labour work generated out of the watershed programme was given to landless labourers living in the watershed instead of to outsiders.



- The farmers themselves decided the contribution pattern in the WDA. The poorer farmers were asked to contribute less than the richer farmers.

- Priority was given to the treatment of lands belonging to small and marginal farmers.

- Crops suitable to upper reaches were introduced.

- Credit from Banks was arranged for agricultural inputs for the small and marginal farmers through the SAGs.

- Interveners arranged for skill training programmes to develop new skills or to upgrade the existing skills for the enterprising poor.



- The WDA made linkages with the Panchayat Raj Institutions and obtained approval for housing, old age pension, construction of toilets, etc. for the poor.

- Equal wages for women were paid.

- Women were involved in all stages of implementation (specially in decision making process) including training. Their experience in the SAGs gave them the confidence and skills to participate effectively. Training was arranged at convenient times and places to ensure their participation.



Content 6.2: Self-Help Affinity Groups as a Strategy for Involving the Poor in Watershed Programmes

This content is useful if the programme has the provision to form self-help groups of the poor. MYRADA's experience suggests that SAGs are formed before WDAs in all the Watershed programmes.

What is a Self-Help Affinity Group: A Self-Help Affinity Group is an organised group of 15-20 members who are bound together by some affinity (mutual trust that has developed either because of families working together, being related to each other or living in the same street, etc.), who meet regularly for thrift and credit management, for institutional capacity building and skills development. The members of SAGs are the poor – landless, marginal and small farmers with dry lands, small traders and artisans, etc. SAGs are recognised and respected as appropriate institutions of the poor in India. In many watershed programmes, SAGs are an integral part of the programme to ensure that the poor participate effectively.

SAGs in a Watershed programme help to promote the following:

- The poor gain experience and knowledge related to watershed activities since the watershed programme is discussed in SAG meetings before plans are finalised.
- Vulnerable groups have a say in preparing the micro-plan and thus ensure that their interests are suitably addressed.
- The poor take up income generating programmes through SAGs promoted by the project.
- Equity is promoted in sharing of benefits from the common lands such as forests, tanks, check dams, etc., as SAGs lobby for their share.
- Women's participation in watershed programme is promoted, as SAGs of women have representatives in the Watershed Committees.

Formation and inclusion of Self Help Affinity Groups did not form part of watershed management strategy in Government sponsored Watershed projects till recently. MYRADA's experience since the late 80's provided adequate evidence that the SAGs had the potential to promote equity on a sustained basis in watershed management. Though most Government Watershed Programmes have now realised that the SAGs have a critical role to play, yet, unfortunately, many of them are marginalized during implementation either because the interveners are not very clear how to bring SAGs into the programme, or, because there is no budget for the SAGs in the programme.

KAWAD and the Karnataka World Bank Watershed Development Project are examples of Government Watershed Projects which have provided space for the formation of SAGs and for improving the livelihoods of the resource poor. Both the programmes have identified agencies to conduct EDP (Entrepreneurship Development Programme) for the members of SAGs. Through such programmes, the existing skills and potential and the resource base of individuals are identified. Studies are carried out on various income generating programmes (both on-farm and off-farm) and trade ventures that can be promoted in the area. Based on this information, plans are prepared to upgrade existing skills and to impart new skills to the SAG members. When any member shows the readiness to take up a new venture, there is provision for handholding for a certain period of time till the person shows confidence and stability to continue on her own.

Process:

Step 1 : Recall the learnings from the previous sessions:

- Who are the various stakeholders of the watershed and how do they benefit from the programme?
- How is equity understood in the watershed context?
- How far has the programme been successful in addressing the equity issue in your watershed?

Step 2 : **Lecture:** Inform the participants of the various ways and means to ensure equity in the watershed programme. Quote examples/cases studies from the field to show how the interests of the vulnerable groups have been taken care of in various watershed programmes. (refer Content 6.1). Some cases studies are given in the box below.

Step 3 : **Sum up** by listing the benefits of making SAGs a part of the watershed programme. (refer Content 6.2)

Studies from MYRADA - KAWAD Molakalamuru Project – indicating how a watershed programme has been successful in providing livelihood options to the resource poor through formation of SAGs.

Study 1:

Siddamma (belonging to ST community) from Bommalinganahalli joined the SAG formed under KAWAD Watershed Programme in Oct. 1999. When she joined, it was difficult for her to save even Rs. 10 every week. For this reason she even had to temporarily leave the group.

KAWAD had assigned the task of conducting EAP and EDP (Entrepreneurship Awareness and Entrepreneurship Development Programme) to AWAKE. The purpose of these programmes was to provide the poor SAG members with alternate livelihood options and to train them in taking up one viable income generation activity which would increase the income of their family.

Siddamma was selected by her SAG for attending EAP and EDP. After attending the programme, she decided to start a small Hotel business. She was oriented by AWAKE about how to go about the business. She took a loan of Rs. 8000 from the SAG and started a small Hotel. Today, she even takes up outside catering, with the support of her husband and makes a profit of around Rs. 3000 per month. She looks back at the days when she was unable even to save Rs. 10 every week, and gives the credit of her progress to the support she got from the SAG.

Study 2:

Narayanamma was a widow working as an agricultural labourer to support her family, when she joined the SAG formed under KAWAD Watershed Programme in May 1999. Her sons contributed a little to the income by working on construction sites in the village whenever work was available. It was difficult for her family to make both ends meet. Under EAP and EDP conducted by AWAKE for families of poor SAG members,

Narayanamma's son got trained in brick making business. She borrowed Rs. 4000 from the SAG added some more money mobilised on her own, and helped her son to establish the brick making business. The son was able to turn this investment into a profitable venture. From then onwards there was no looking back for Narayanamma's family. She took another loan of Rs. 15000 from the SAG and set up a flour mill shop for her son, which he operates simultaneously. She has repaid all her loans.

NOTE: KAWAD and KWDP (SUJALA) watershed programme of Karnataka have been successful in providing for the landless and the resource poor under their programmes because they incorporated the issue of addressing equity as one of the project objectives and provided funds in the budget.

Another Case Study on Addressing Equity - Initiative taken by WDA

In the Odeyarpalaya area of the MYRADA Huthur Project, the watershed development programme was introduced in 1990. During the implementation phase, there were 10 landless and homeless tribal families in the village. MYRADA with the support from the government, mobilised land and subsidies to construct pucca houses for each family in a settlement called Gandhinagar. The main occupation of these families was collection of minor forest produce during the season; in the off-season they were unemployed.

In 1995, when watershed development activities were being implemented in G.M. Doddy watershed, the Micro-watershed Association invited the landless families from Gandhinagar to work on their lands for wages.

When the work in G. M. Doddy was coming to an end, the women's SAG from the tribal hamlet of Gandhinagar, approached the G.M. Doddy WDA, with a request to help them find alternative employment. The G.M. Doddy WDA thought about setting up a rug-weaving unit in Gandhinagar which some of them had seen working quite efficiently elsewhere. Since it had a ready market in the area, they thought it would be an ideal income generation programme not only for the Gandhinagar families but also for other landless families in their watershed area.

The WDA established a link with an agency involved in production and export of rugs, who promised to support the initiative by providing the raw material and buying back the finished product on 'per piece basis'. The WDA requested MYRADA to support the construction of a temporary shed and to provide the group with a small working capital and to cover the initial costs of the trainer's fees. The WDA asked the women to take loans from their SAG to purchase a hand loom.

There are now 20 women from the watershed area working in the centre. Each earns over Rs.50 per day on an average. From a regular savings from their earnings, they have been able to repair the weaving shed. They pay the salary of the manager who looks after the day-to-day management of the centre. The initiative taken by a WDA to look beyond their own needs, and to help provide alternate livelihood for the resource poor in their watershed has made life easier for 20 poor families.



Stop and Check!

Are participants able to describe how the watershed development institutions can involve the resource poor groups in their watershed? Are they able to state the importance of Self-Help Affinity Groups of poor in a watershed management programme?

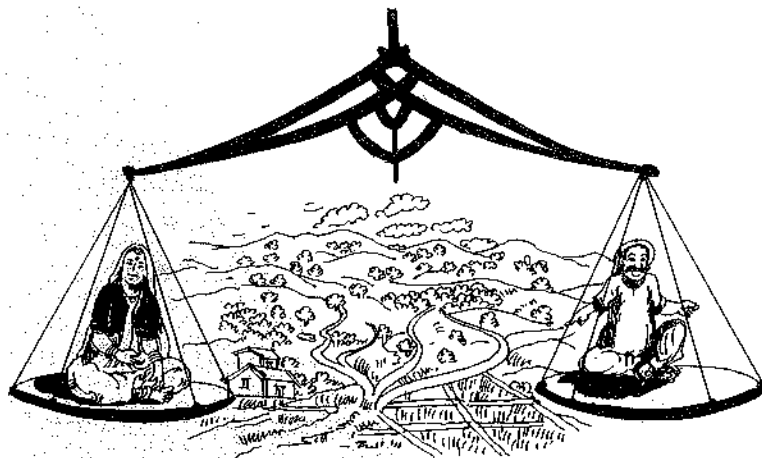
Follow up Action:

The WDA members having become more aware about the need to promote equity, can work out strategies to improve the livelihood base of the poor involving the SAG members and the intervening organisation.

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Gender Issues in a Watershed Programme



Module Overview:

Watershed management programmes impact women and men differently. It is therefore necessary to discuss gender related issues with watershed institutions at various points of time.

The module is only an introductory one and is not extensive; more detailed and longer-term interventions are required to make watershed management programmes truly gender sensitive and reduce biases against women. Users of this manual may refer to other resources and trained persons for more detailed work.

Module Aim and Objectives:

The module aims to sensitise the members of the Watershed Management Associations to the gender issues in our society in general and to the gender issues in watershed management programmes in particular. The module should lead to gender sensitive policies within the watershed management association and equitable distribution of responsibilities, costs and benefits.

Sessions

- | | | |
|----------|---------------------------|---|
| 1 | Topic | : Perceptions/ Stereotypes - women are... men are... |
| | Duration | : 30 minutes |
| | Methods used | : Game, lecture, group discussions |
| | Materials required | : Ball, chart paper and markers |
| 2 | Topic | : Sex and gender |
| | Duration | : 1 hour |
| | Methods used | : Lecture, group discussion, game, display of pictures |
| | Materials required | : A ball, chart paper and markers, set of pictures |
| 3 | Topic | : Gender in the watershed context |
| | Duration | : 2 hours |
| | Methods used | : Use of gender analysis tools: 24-hour activity chart, access and control exercise, brainstorming, group discussions and lecture |
| | Materials required | : Chart paper and markers |
| 4 | Topic | : Action planning for better gender equity in watershed management programmes |
| | Duration | : 1 hour |
| | Methods used | : Brainstorming and group discussions |
| | Materials required | : Chart paper and markers |

Total Duration: 4 hours 30 minutes

At the end of the module the participants will be able to:

- Identify common perceptions about men and women in the society
- Explain how gender differences are created by the society and how they influence the work that men and women do
- Explain gender in the watershed context
- Plan to introduce gender sensitive policies related to watershed programme activities.
- Develop plans/policies for greater involvement of women in watershed programmes



Facilitator's Note: Discussion on issues related to Gender is often very sensitive as they generally go against people's long held beliefs and practices. Therefore, the facilitator needs to present these issues at an appropriate time and place and with tact. If presented in an aggressive manner, it tends to polarise people leaving little room or space for a strategy to emerge.

Perceptions / Stereotypes: Women are ... Men Are ...

Session Objectives:

At the end of the session the participants will be able to express their perceptions about men and women.

Session Duration: 30 minutes

Methods Used: Game, lecture and group discussion

Materials Required: A ball, chart paper and markers

CONTENT

Content 1.1: Gender Perception Game: Women are... Men are...

Objectives of the game:

- To identify participants' beliefs & perceptions about men and women
- To explain how their perceptions of roles of men and women can be an obstacle to the personal growth of women and to achieving the objective of gender equity

How to play the game:

- Ask participants to form a circle with one person in the centre holding a ball. The player in the centre begins the game by calling out "*Women are...*". He/she immediately throws the ball to someone in the ring.
- The person who catches the ball immediately finishes the sentence by calling out a word, which describes women (like strong, weak, gentle, etc). She/he should answer spontaneously, throw the ball back to the person standing in the centre and then step out of the ring.
- The caller in the centre then calls out "*Men are...*" and throws the ball to another person in the ring who catches the ball and finishes the sentence by calling out a word which describes men (like strong, rough, etc).
- The leader continues to call "*Women are...*" "*Men are...*", at random as the ball is thrown to other persons in the circle; each persons moves out after answering.
- As the responses are called out, the facilitator or a volunteer writes them on the board in two columns as shown below. Stereotype responses would look as follows: (this is an example)



Example:

Women Are...	Men Are...
Weak	Strong
Emotional	Logical
Dependent	Independent
Gentle	Tough
Followers	Leaders

Process:

Step 1 : Explain the objectives of the module, seek any clarifications.

Step 2 : Play the game: "Women are... Men are..."

Step 3 : Assemble the group together again and ask the participants to spend a few minutes reflecting on the responses they gave during the game.

Step 4 : Brainstroming: Ask participants the following questions:

- What are the common perceptions or features/images of women? What are the common perceptions or features/images of men?
- Do these features conform to the real situation? Do you think that the responses you gave express and describe the **behaviour and roles of women and men** that everyone considers 'normal' or 'natural'?
- Do you think that other societies or communities or countries have different perceptions of men and women?
- Do women and men behave as if these **stereotypes¹** were true?
- Have these expectations of society regarding how women and men should behave, influenced the behaviour of women and men?
- What are some of the consequences, of these images commonly perceived, on the behaviour of women and men?



Facilitator's Note: Bring to the notice of the participants that the descriptions of women/ men written on the board are very similar to the way each of us sees ourselves and that we often do not realise that these perceptions have the power to mould and shape our attitudes and opinions about what is 'female' and what is 'male'.



Stop and Check!

Are participants able to explain that many of our perceptions about men and women are learnt over time and not necessarily inborn?

¹ Stereotype means to assign fixed images, roles, traits, to men or women

Sex and Gender

Session Objectives:

At the end of the session participants will be able to:

- explain the differences between the concepts of sex and gender
- explain how gender differences are created by the society and how it influences the work that men and women do

Session Duration: 1 hour

Methods Used: Lecture, group discussion, game, display of pictures

Materials Required: A ball, chart paper and markers, set of pictures

CONTENT

Content 2.1: Sex and Gender

The facilitators must be familiar with some of the concepts related to gender issues in development. It is also important that the terminology is translated into the local language. In case you cannot find the appropriate words – explain the concepts.

'SEX' - Refers to the biological differences between women and men. These differences are by and large **fixed and unchanging**. Human beings are normally born as male or female.

'GENDER': Refers to the 'social differences' between men and women that are largely learnt through various interactions within the family and society. For example: Several differences that came up in the game "Men are... Women are..." are not physical at all, but are socially constructed. Sometimes they do not remain differences but become biases that are taught to us by our families and the social environment in which we live (by elders, through films, stories, books, songs, laws/traditions, etc.).

Though there are social biases against women which are very visible in society, most of us have accepted them as the norm. We do not question them even when some are clearly unfair to women.

Examples of social differences between men and women, some of which develop into biases against women:

- **In the clothes they wear:** Women and men usually dress up in typical ways – women wear saris, salwar/kurta, some wear a purdah, jewellery, cosmetics; men wear dhotis or trousers. Men are supposed to keep their hair short, while women are supposed to grow it long. Short haired women are regarded as 'forward'.



- **In the roles they are expected to undertake:** Women are expected to be nurturers (to look after and care for children and family); men are the breadwinners. As a result of these roles, women are restricted to remain in the home sphere while men are free to take larger roles in the community (including politics, work that involves travelling, etc.)



- **In the work traditionally assigned:** Women are expected to cook and clean while men are supposed to earn wages. Even when women take on men's roles and work for wages outside the homes, they are still expected to cook and clean.



- **In the wages paid for work:** Women's work at home is generally not valued in terms of money even if they work equal number of hours in a day as men. Even when women go out to work (as labourers) they are paid less than men. The reason attributed to this is that men do heavier work than women outside, while working at home is "natural".
- **In the way resources are distributed, owned or controlled:** Women and girls often do not get enough to eat or spend (traditionally they are supposed to eat last in the family). They do not own productive assets and do not have access to cash for their expenses. Men on the other hand own assets, spend some of their earnings on themselves before giving the rest to the family and decide how to use their assets.
- **In the way decisions are made:** Men take decisions on most matters dealing with property, agriculture, earning and expenditure, social functions, and matters relating to their community; women's decision making is mostly restricted to some domestic matters and even there they cannot decide on their own.

The concept of gender changes over time: e.g., a few years ago only men were considered drivers, but now several women also drive vehicles in India. Gender has wide variations in and between cultures; therefore what holds true in one religion (or caste, or country) may not be the same in another.

When either men or women are denied access to opportunities on the basis of their sex, gender biases come into the play

Content 2.2: Gender Roles

Each society has written or unwritten norms, and learned or conditioned behaviour and practices, which determine what activities, tasks and responsibilities, are considered "masculine" or "feminine". 'Gender roles' refers to the division of social labour or duties between male and female; which are not biologically but socially determined.

Example:

Masculine Role	Feminine Role
Breadwinner – therefore work for wages, salaries etc.	Homemaker – therefore cook, clean, bring up children, care for the aged, etc.
Leader – therefore set rules, enforce rules, take decisions, take part in meetings, etc.	Follower – therefore listen to the family, follow decisions taken without questioning them.

Content 2.3: Gender Issues

Gender Issues arise when gender roles involve unequal opportunities and unequal distribution of resources and benefits. They result from stereotyped perceptions of male and female in a society, as regards what are acceptable or appropriate gender roles, behaviour and activities.

Example: When women or men are prevented from taking up certain occupations/activities which are not considered typically feminine or masculine.

Gender issues arise in cases like these:

- A young girl is prevented from going to school because she is meant to be only a home maker and not a bread-winner.
- Men are not considered to be good “care takers of children” and hence, the entire burden of looking after the children has to be shouldered by the women.
- Only men are involved in watershed management activities as they are perceived to be farmers and heads of their households.
- Men and women are paid different wages for the same work, since it is believed that men work harder.
- Money cannot be spent on a girl’s education because she leaves the home and besides, money has to be saved to pay for her dowry.

Process:

Step 1 : Lecture: Explain the difference between Sex and Gender. **Guiding Question:** What do you understand by Sex? What do you understand by Gender?

Sex is “linga” and Gender is “lingatva”. Gender bias is “linga bheda.”

Step 2 : Facilitate open discussion (refer Content 2.1)

Step 3 : Play the Game “Kamala is born... Vijay is born...”

Game: Kamala is born ... Vijay is born ...

- Ask all participants to stand in a circle. Explain that each participant will add a sentence and build a story about two people as they pass the ball around.
- Announce "Kamala is born..." and pass the ball to a participant in the circle. This participant will now add a sentence about "Kamala's" life and pass on the ball to the next person. In this way the participants will pass on the ball and build up Kamala's life story until she dies or till the facilitator feels it is sufficient. (Facilitator's tip: Keep track of the story).

For example:

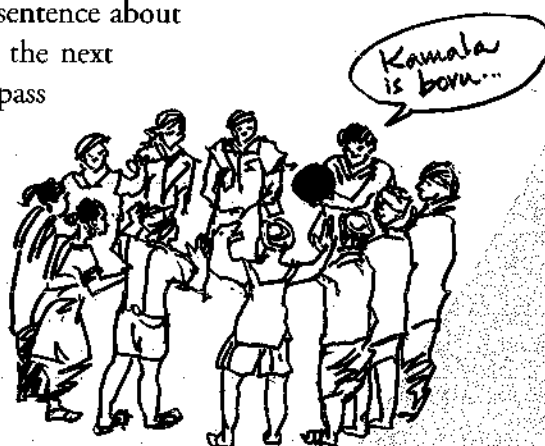
First person: Kamala is a beautiful girl

Second person: She is never allowed to play outside the house

Third person: As she grows up she is given the task of looking after another sibling.

Thus Kamala's life-story is built up.

- In the next round pass the ball to another participant and announce, "Vijay is born!" As in the previous step, the participants will now build up the life-story of "Vijay".



Step 4 : After both the stories have been told, analyse the stories.

Key Questions:

- Why are Vijay's and Kamala's lives so different? Who determines how Vijay and Kamala should lead their lives?
- Who is more successful, healthy or powerful, why?

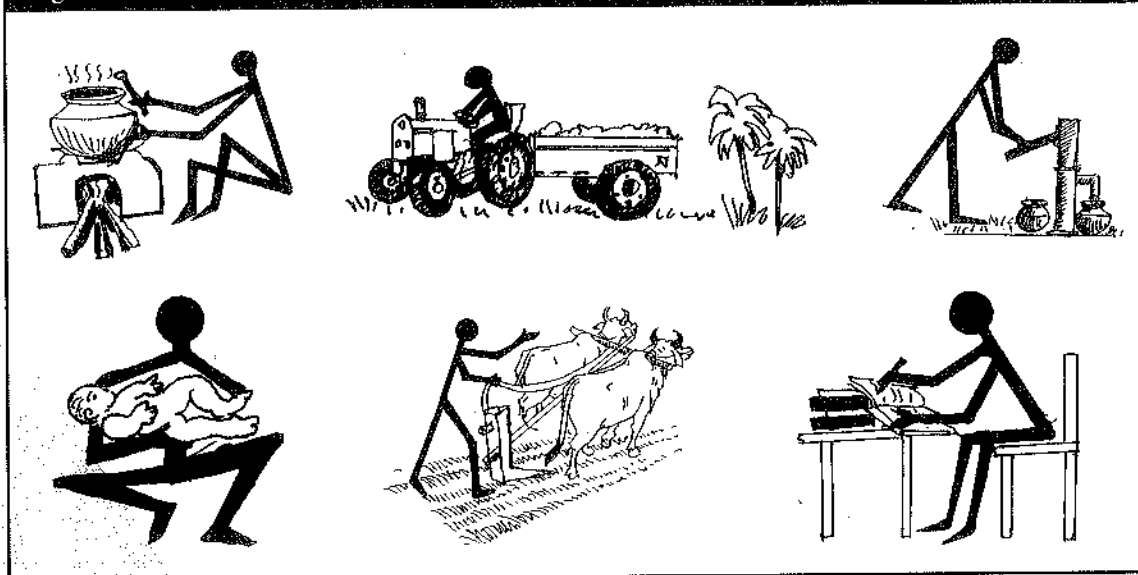


Facilitator's Note: In these stories existing gender differences in the society will come out. It is necessary to note them down and raise them during the discussions.

Step 5 : Sum-up the discussions stating that women and men are treated differently by society. This is gender bias. All of us learn to assign particular roles, work and qualities to men and women based on what our family, our society and social environment teaches us. If Kamala and Vijay were born in a different country, their life would have taken a different course. +

Step 6 : Display the pictures given in *Figure 1*. The pictures show skeletal figures. Ask the participants to identify the figure in each of the pictures – whether it is a man or a woman. The answers are usually influenced by the impressions people carry about what roles women and men should play in the society.

Figure 1: Skeletal sketches to understand participants perceptions about roles of Men & Women



Step 7 : Explain 'Gender Roles'. Explain how the individual's perception about what women should do and what men should do, are influenced by the society's norms regarding men and women. (refer Content 2.2).

Step 8 : Discuss in general about the 'Gender Issues', which emerge out of the perceptions discussed above. (refer Content 2.3).

Stop and Check!

Are participants able to differentiate between sex and gender? Are they able to explain how gender relations affect the lives of men and women differently? Are they able to explain how the roles of women and men in the society are defined by the societal perceptions about what a woman and man should do according to tradition?



Session: 3

Gender in the Watershed Context

Session Objective:

To sensitise the participants about the important role of women in watershed management.

Session Duration: 2 hours

Methods Used: Use of Gender analysis tools: 24-hour activity chart and Access and Control exercise, brainstorming, group discussions and lecture

Materials Required: Chart paper and markers



CONTENT

Content 3.1: Gender in Watershed

There are many obstacles that come in the way of effective participation of women in watershed management.

- To begin with, all the land is in the name of men.
- Secondly, since watershed programmes give importance to agriculture, men tend to dominate in decisions and management bodies since they are traditionally considered to take the lead and responsibility in agriculture.
- Thirdly, women are usually marginalised in meetings of the WDA - the meetings are often held at times and in places inconvenient to women.
- Fourthly, traditional attitudes of gender bias against women regarding wages, jobs, etc., that prevail in society are often reflected in the WDA.
- Finally, women have little say in decision making on how to allocate resources, whether it is food or funds. Marketing of agricultural produce - except backyard-grown vegetables or products that are sold daily - is largely in the hands of men, who consequently control the income.

The gender related biases that need to be addressed in a watershed project fall in two categories. One relates to the position of the women in the family and community, and the other relates to the condition of women in the family and community. Both of the above biases are present in the society at large and they are not specific to the watershed programme. However, within the scope of a watershed project it is possible to address both the above issues, at least to some extent.

1. Issues related to the 'Position' of women: Relations between men and women are traditionally biased towards men as explained in the previous session (*confer Content 2.3 and 2.4*). This explains why women are regarded inferior to men and always placed second when it comes to access and control over resources or when resources are limited and choices have to be made (e.g. the distribution of food between boys and girls, the investment in the education of boys versus girls).

The watershed programme does not automatically correct these gender biases. However, interveners can facilitate the process of watershed development to reduce some of these gender biases related to the women's position in her family and community. Opportunities can be created for the women to improve her position in the family and community. For example in many watersheds, women through SAGs have involved themselves in watershed programmes by insisting on participating in the watershed meetings and taking part in decision-making. Due to the SAGs, in some watersheds, women are now getting equal wages as men. In one project, where SAG members were active, the watershed committee ensured that women's names were also included in the *khata* (land ownership paper).

2. The second bias, related to the 'Condition' of women can be influenced through the watershed programme. For example in watersheds where water development activities were taken up and were also successful, it was seen that water for domestic purpose, for which women had to walk long distances, was now available near their homes. Another example is of watersheds where women were involved in decision-making while planning for common lands. This resulted in planting more fuel and fodder species in the forest/ pasture lands. It ensured easy availability of fodder and fuel, for which women otherwise had to walk long distances.

Process:

Step 1 : Recall points from the previous sessions on 'gender perceptions' and 'sex and gender'.

Step 2 : Conduct the '24 hour Activity Profile' exercise with the group.

24 Hour Activity Profile Exercise :

Objective of the Exercise: to sensitise the participants about the extent of involvement of women in reproductive and productive activities.

- *Reproductive role:* These include childbearing/rearing responsibilities, domestic tasks such as cooking, washing, cleaning, fetching water, etc., ...
- *Productive role:* These include activities which directly or indirectly fetch some pay/ money – either in cash or kind. It includes working as labourers on others fields, working on their own fields, cleaning and maintenance of cattle, etc.

The analysis of this should finally lead towards the participants acknowledging the need of not over burdening women in a watershed programme.

1. Ask the participants to consider the tasks that men and women do in their community on an average working day.
2. Chart these tasks during a twenty-four hour period in a table similar to the one given below. The 'time' column can be filled as per the duration of the activity listed. Separate tables can be created for Women's and Men's activities.

Example given below: Table 1

Women's Tasks	Time	Men's Tasks	Time
Waking up	5:00 A.M.	Waking up	6:00 A.M.
Morning activities	5:00 – 5:30 A.M.	Morning activities	6:00 – 6:30 A.M.
Attending to the cattle and cleaning the cattle shed	5:30 – 6:00 A.M.	Having food/ breakfast	7:00 – 8:00 A.M.
Milking the cattle	6:00 – 6:30 A.M.	Leaving for Agriculture labour	8:30 A.M.

Analyse the above table in the following manner:

- How much time in a day do the women work? How much time do they relax? How much time in a day do the men work? How much time do they relax?

- How much of the women's and men's time is spent in productive activities and how much is spent in reproductive activities.
- How much time do the women spend in activities related to the watershed components – such as on land, in collecting water, in collecting fodder and fuel wood, etc.?
- Does this involvement of women in activities related to watershed components entitle them to take an integral part in planning and monitoring the watershed programme?

Step 3 : Conduct the 'Access and Control' exercise.

Access and Control Exercise:

Objective of the Exercise: to help the participants analyse the existing level of involvement of women (in terms of time, labour, etc.) in watershed related activities and the extent of control the women have on the watershed resources in terms of planning, decision-making, benefit-sharing, etc.

1. Ask the participants to list out various resources of the watershed.
2. Against each of the resources listed, ask the participants to indicate the extent of involvement of men and women in the activity related to that resource. This can be indicated in the following manner: F- exclusively female; F/m – predominantly female; M – exclusively male; M/f – Predominantly male; F/M – female and male equally.
3. In the third column ask the participants to indicate the extent of control men and women have over the resources (in terms of planning and decision making for the resource, money earned from the resource). This can be indicated in the similar manner as mentioned above.

Example given below: Table 2

Watershed Resources	Access – in terms of time and labour	Control - in terms of planning, decision making, money earned from the resource
Agriculture land	M/f (who works as labour? who invests more time in their own lands? ...)	M(who makes a decision about what to grow? where to sell? what price to sell for? ...)
Cattle	F (who washes the cattle? who collects fodder for them? who milks them? ...)	M(who is involved in buying of the cattle? who sells the milk? who handles money earned by selling cattle or milk? ...)
Water for domestic use	F (who fetches water? who goes to the village tank to wash clothes? ...)	M(whose priorities are considered while taking decisions regarding whether to desilt the tank, whether to install a new borewell in the village? ...)

4. Analyse the exercise in the following manner:
 - Do you think women's control over the watershed resources is more/less than men?
 - Are women's concerns given priority when decisions are taken with regards to resources used predominantly by women?

Step 4 : Brainstorming: Find out the participants' views regarding the involvement of women in the watershed programme.

Guiding question: Based on the analysis of the above exercise do you think that a watershed programme should create more space for women's involvement? If so, how?

Step 5 : Lecture: Sum up the session using *Content 3.1*.

Stop and Check!

Are the participants able to explain why watershed programmes should be sensitive to women's issues and why they need to involve women in a more decision making role?



Session: 4

Action Planning for Better Gender Equity in Watershed Management Programme



Session Objective:

At the end of the session participants will be able to:

- promote more gender sensitive approaches in watershed programme activities.
- develop plans for greater involvement of women in watershed programmes, especially in decision making.

Session Duration: 1 hour

Methods Used: Brainstorming and group discussions

Materials Required: Chart papers and markers

Process:

Step 1 : Recall the contents of the previous session.

Step 2 : Brainstorming: to find out whether

- the existing activities under the watershed programme are sensitive to women's needs/issues.
- the interveners proactively and constantly encourage women's decision making in the programme.
- the WDA provides space and encourages women to participate in decision making and in equitable sharing of benefits.

Key Questions:

- Refer to Table 2 in the previous session (Access and Control exercise). What are the activities planned for each of the resources listed? Do the activities take care of women's needs? Was there any involvement of women in planning? Do the women get their share of benefits?
- What are the wages paid to men and women for labour under this programme? What is the mode of payment? Are the male members of the women's family handed the wages of the women? Who decides how to use the wages earned by women?

Step 3 : Group discussion: What steps could be taken in your WDA to ensure gender equity?

Tips to the facilitator to facilitate discussion:

- Check if the project's activities impose an extra burden on women's daily schedule? Will these activities give women greater skills, confidence and independence or just increase their work?
- Does the project involve women during planning of activities related to Common Property Resources and do women directly share the benefits?

Step 4 : List down responses on chart paper. Suggest some ways in which other WDAs and interveners have ensured better and equitable watershed management practices related to the 'condition' of women as well as to the 'position'. Examples given in box below:

Some policies formulated by a few WDAs to ensure gender equity in their watershed programmes:

- SAGs of women (especially poor women) who rely on watershed resources are given membership in Watershed Committees.
- All plans for watershed management activities are discussed when both men and women are present and special care is taken to elicit women's views.
- Women from SAGs are given preference to manage certain common properties, which they use regularly.
- Women and men are paid equally for a similar job.
- Land purchases by the family are registered jointly in the names of the husband and wife.
- Watershed institutions have at least 50% women on all Committees

Step 5 : Ask the WDA to minute decisions for follow-up action.

Stop and Check!



Have the participants developed ways in which they can enhance the participation of women in watershed management programmes?

[illegible]

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. On the right side, there is a large, curved, shaded area that appears to be a design element or a placeholder for a graphic. The shading is a light gray color. The overall appearance is that of a clean, unused document template.

Establishing Linkages



Module Overview:

'Linkage' is a system of establishing relationships. These linkages can be formal (e.g. bank transactions) or informal (e.g. good rapport between WDA and the Panchayat member). They can be intense and regular or not intense and/or not regular. All types of linkages are critical for the growth and sustainability of the watershed institutions. The WDA needs to acquire the skills and confidence, not only to build linkages but to strengthen and expand them.

Module Aim and Objectives:

The purpose of this module is to communicate to the WDA the importance of establishing links with other institutions and to help the WDA evolve an action plan for forging and strengthening such links.

At the end of this training module, participants will be able to:

- Explain the meaning of linkages
- State why their WDA needs to be linked to other institutions
- List the institutions with which their WDA is currently linked and analyse the quality of the relationship
- Evolve an action plan for linking with other institutions and for building upon these relationships.

Sessions

- Topic** : Why does a WDA need to establish linkages?

Duration : 1 hour

Methods used : Brainstorming, lecture, case study presentation

Materials required: Chart paper, markers, case studies
- Topic** : Relevant institutions for establishing linkages

Duration : 30 minutes

Methods used : Brainstorming, group discussion

Materials required: Chart papers and markers
- Topic** : Analysis of current linkages

Duration : 1 hour 15 minutes

Methods used : Brainstorming, group discussion, 'Chapati Diagram' Exercise

Materials required: Chart papers and markers, 10 to 15 circles of three different sizes cut out of chart paper, chart paper with 4 concentric circles drawn, glue
- Topic** : Action plan for future linkages

Duration : 45 minutes

Methods used : Brainstorming, group discussion, 'Chapati Diagram' Exercise

Materials required: Chart papers and markers, circles of three different sizes cut out of chart paper, chart paper with 4 concentric circles drawn, 'Chapati diagram' drawn in previous session

Total Duration: 3 hours 30 minutes

Why Does a WDA Need to Establish Linkages?

Session Objective:

At the end of this session participants will be able to:

- state what is meant by establishing linkages
- state why it is important for their WDA to be linked to other institutions

Session Duration: 1 hour

Methods Used: Brainstorming, lecture, case study presentation

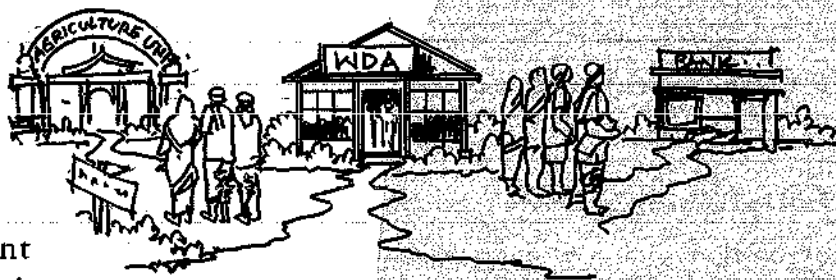
Materials Required: Chart paper, markers, case studies

CONTENT



Content 1.1: What is Meant by Establishing Linkages

A linkage is a formal or informal interaction between individuals and institutions which is sustained over a period of time. In our context, the linkage is between the WDA (which is an institution in its own right with its own vision, mission, rules and systems) and other Institutions (like Banks, Government Departments, Private Companies, etc.). These kinds of linkages are at times mutually beneficial. In fact experience shows that those cases where the linkage benefits both the parties and where the transactions require regular interaction, have the potential to continue. For example, the linkages with Banks tend to be more sustainable since these are based on regular loans and repayment by the WDA members, which is also beneficial to the Bankers.



Some familiar examples of linkages:

- When a WDA opens a bank account, the institutions (the bank and WDA) establish a link, which is further strengthened when the WDA takes a loan from the bank.
- When members of the WDA meet officers of the Agriculture Department with an application for some service, a relationship is established between the two.

- When a private seed and fertilizer company sees the WDA as a potential market and approaches it, a link is developed.
- The WDA might link up with a social development organization in their area for training.
- One WDA may approach another WDA to set up a Farmers' Service Society together.

Content 1.2: Why does a WDA Need to Establish Linkages?

No individual is independent. He/ she is interdependent on other individuals for the fulfilment of their day-to-day needs. This is how trade started long ago – people exchanged goods for goods (Example: the farmer and the blacksmith traded with each other to fulfil their needs for agriculture implements and food grain respectively). This system of trading was called 'barter'. Technology has progressed a lot from that time to the present day; but still an individual is not complete in herself/himself. People still depend on each other to fulfil their basic needs and will continue to do so.

Similar is the case with a WDA. Some of the reasons for which WDAs generally link up with other institutions are as follows:

- To mobilise essential resources like finances, agricultural inputs, information and other services required for the various activities of the WDA and its members.
- To take up some of the services which were provided by the intervening organisation after the withdrawal of such organisations.
- To establish a large base for organising purchase of inputs (seeds, fertilisers, etc.) in bulk as well as for marketing agriculture produce in bulk; it could function like a Farmers Service Society or even become a cooperative.
- To have access to new technology from private and government institutions.

Process:

Step 1 : Brainstorm the participants about their understanding of the term linkages.

Leading Question: What do you understand by linkages? Where do you see examples of linkages in your day-to-day life?

Step 2 : Elicit answers for the above and explain the term "linkages" referring to *Content 1.1*.

Step 3 : Brainstorm the participants about the need for a WDA to establish linkages with other institutions.

Leading Question: Why is it important for the WDA to link up with other institutions?

Step 4 : Elicit answers for the above and explain the need for the WDA to link up with other institutions using *Content 2.1*.

Step 5 : Sum up the session by giving few examples from the field citing incidences of how WDAs have mobilised benefits because of their external linkages. Few cases are given below.



Facilitator's Note: Be prepared with case studies related to 'linkages' from the field.

Case 1: Linking with the Bank

Sri Hanumanthadevara Jalanayana Sangha was formed in Kudineerinakatte village – Holalkere taluka, Chitradurga district of Karnataka, in 1996 with 20 members. The WDA received funds from MYRADA for watershed related activities. The members were trained by MYRADA in financial management and in maintaining their books of accounts. On completion of the planned activities, MYRADA withdrew from the watershed. To carry out further activities the group needed funds. MYRADA introduced the group to the Chitradurga Grameen Bank. The manager of the Bank attended one of the meetings of the WDA, visited the field, checked their books of accounts and other documents and was convinced of the financial management capability of the group as well as of the viability of their proposed investments. From then on a continuous line of credit has been established between the WDA and the Bank. Some details of the loans taken by the WDA are given below:

No.	Loan taken by WDA (in Rupees)	Repayment
1.	10,000	Full repayment with interest within 6 months
2.	25,000	Full repayment with interest within 10 months
3.	50,000	Full repayment with interest within 12 months
4. NABARD studied the financial and organisational management of this group and sanctioned a portfolio loan of Rs. 5 lakhs.		

Case 2: Leveraging Benefits from Agriculture Department

5 WDAs in the Hannur sector of MYRADA Huthur project quickly realised the benefits of linkages. Two years after formation and an introduction to the Agriculture Department by MYRADA they have set off on a progressive course. In the past year the members have availed of the following benefits from the Department at 50% subsidy - iron ploughs for 25 farmers, 20 tons of gypsum, power sprays for 10 farmers, diesel engines for 4 farmers and ragi seeds.

Other things mobilised by the WDA:

- Training by the Department in groundnut cultivation, vermiculture, gypsum application, compost pits, etc.
- 'Save Grain' training
- Metal bins and 'pucca koti'
- 5 farmers participated in 'Karnataka Darshan' – a state level exposure tour conducted by the Department for the farmers.

Case 3: Farmers Find Ways of Helping Themselves

In Odeyarpalaya, the Navajyoti Federation of WDAs helped one of its members, Shivkumar, to start an Agro-centre to cater to the agricultural input requirements of the farmers like providing seeds, fertilisers, pesticides etc. There are no licensed shops in the area which meet these requirements and farmers had to go 50-100 kms. away for purchases. Shivkumar linked up with input supply dealers for procurement of quality inputs for the farmers of his area. Private seed and fertiliser companies having found a platform in the form of Shivkumar's Agro-centre, for selling their products. Shivkumar has found yet another way of helping the farmers - he collects information from several markets about the selling price of various agricultural produces. He provides this information to the federation members, who put it up on the information board in their villages. This is regularly updated. This helps the farmers to make informed choices regarding the sale of their produce.

Stop and Check!

Are the participants able to state the various reasons for linking up with other institutions?



Session: 2

Relevant Institutions for Linkages

Session Objective:

At the end of the session the participants will be able to:

- identify the institutions with which it is advantageous for them to establish linkages
- state the advantages to their WDA from each of the institutions that they have listed

Session Duration: 30 minutes

Methods Used: Brainstorming, group discussion

Materials Required: Chart papers and markers



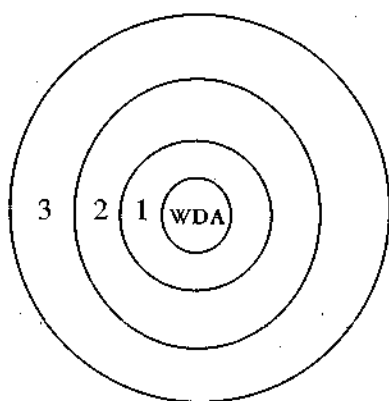


Figure 2

Circle 1: Strong interaction, very good rapport, frequent and regular contact, high accessibility, both benefit very much from the linkage.

Circle 2: Some interaction, continuous but not regular contact, not benefiting very much from the linkage.

Circle 3: Only sporadic or rare contact, but having knowledge of each other's existence and function.

Process:

Step 1 : Brainstorm the participants to identify the institutions with which the WDA has contact.

Guiding Question: With which institutions does your WDA have group relationship? Elicit answers and list them on a brown sheet.

Step 2 : Ask the participants to prioritise the institutions mentioned according to their importance to the WDA in terms of – 'High', 'Medium', 'Low'. Note down the name of each institution on the agreed size of *chapatti* (refer Content 3.1).

Once they start allocating sizes to the institutions, probe them further with questions like:

- Why have you chosen the same size for both these institutions (eg. bank and SAG federation)? Are they equally important to you? Do you derive the same benefits from both?
- Why have you given the Revenue Department a smaller circle than the Bank?

Step 3 : Brainstorm the participants to identify the intensity of contact between the WDA and institutions.

Guiding Questions:

- How much contact does your WDA have with each of the institutions listed?
- How often do the representatives of the WDA visit the institution?
- How are you given support by them? What kind of role do they play?
- Do you have the same relationship with the Gram Panchayat that you have with the Bank since you have placed both in the same circle?
- At present what is the kind of relationship that you have with the Agriculture Department? Do you visit it often? Do the officials visit you? Do you know what programmes they have? Do they know what activities you are involved in?

- Step 4 :** Elicit answers. After the participants describe their relationship with each institution, ask them to place the *chapatti* in the circles drawn around the centre (1, 2, 3). Higher the intensity of contact, nearer it will be to the centre.
- Step 5 :** Once the diagram is finalised, ask the participants to review the chart. If no changes are necessary, ask them to paste the *chapattis* in their places.
- Step 6 :** There may be cases where they have given high importance to an institution by giving it a large circle, but yet they have placed it in the third circle indicating that contact is not regular. This shows that they must make serious attempts to build a strong linkage.
- Step 7 :** Link to the next session by asking whether they are satisfied with the way their chart looks with regards to the extent of linkages or whether they feel some *chapattis* need to be moved, added or allotted another size for building new relationships and improving the existing relationships.

Tips to the Trainer:

- While ranking the cards as well as placing them in the circles, make sure that all participants express their opinion. Ensure that everyone understands the process by cross-questioning and by encouraging some of the quieter participants to take a more active role.
- Allow enough time for discussion before the group arrives at a decision.
- Use symbols for each institution if the participants find it easier to recognise.
- Explain that even bigger *chapattis* can be placed in the farthest circle if relationship with the WDA is not very good. For instance, the Agriculture dept. might be very important to the WDA and they might have allotted the biggest *chapatti* to it, but since the existing linkage does not seem to be very strong, the participants can place it in the 3rd circle.
- Ensure that participants list only those institutions that they have already linked to and not those that they wish to link. Do not prompt them to add institutions that they have not linked to.
- Write the date on which the exercise is conducted on the chart paper



Stop and Check!

Are participants able to analyse the present status of their WDA's linkage with other institutions?



Action Plan for Future Linkages

Session Objective:

At the end of the session the participants will be able to:

- list down the institutions that they need to establish links with
- list the institutions which they think are important but with which their relationship needs to be strengthened
- draw up an action plan to build new linkages and to strengthen the old ones

Session Duration: 45 minutes

Methods used: Brainstorming, group discussion, 'Chapatti diagram' exercise

Materials required: Chart papers and markers, *chapattis* (circles) of three different sizes cut out of chart paper; chart paper with four concentric circles drawn; *chapatti* diagram drawn in previous session



CONTENT

Content 4.1: Analysis of the *Chapatti* Diagram for Future Linkages

The *Chapatti* diagram drawn by the participants in the previous session represents the current state of linkages of the WDA. As the WDA grows, its relationships will change and accordingly the *Chapatti* diagram will also change. This will depend on the direction in which the WDA grows and their priorities during different stages. For example: in the initial stages linkage with the wholesaler/ marketing agency might not be very important to the WDA. As the soil and water conservation activities are implemented and productivity increases, the wholesaler/ marketing agency becomes very important to the WDA. Hence, keeping in view the future requirements of the WDA, the members should make plans to encourage new linkages and to strengthen the existing ones they consider important.

Process

Step 1 : Brainstorming: Discuss their plans for building new linkages and strengthening the existing ones.

Guiding question: Which are the institutions which are not there right now in the diagram, but which you feel will be helpful for the WDA to build linkages with?

Step 2 : Ask participants to categorise these institutions in order of importance for their WDA and the nature of linkage which the WDA wishes to have with these institutions. Depending on the importance and intensity of linkage, ask the

participants to prepare new *chapattis* and place them in appropriate circles as was done in Session 3.

Guiding questions:

- What size of circle (what importance) will you assign to these new institutions?
- Where will you place these *chapattis* in the circle?

Elicit answers and ask the participants to place these *chapattis* on a separate chart with 4 concentric circles. (Similar to the one in Session 3)

Step 3 : Sometimes establishing links with new institutions may cause change in the existing linkages. Also the requirements of the group changes with time. In view of all this, there might be a need to change the importance given to a particular institution in the past. Ask the participants if they would like to reallocate sizes and distances to the earlier institutions.

Guiding question:

- Will the placement of new *chapattis* make a difference to the location of existing *chapattis*? Which of the *chapattis* will be affected?
- Which of the *chapattis* do you think will not hold the same importance and hence will not require the same intensity of contact a year later?

Step 4 : Elicit answers. Ask the participants to prepare new *chapattis* for the old institutions and place them on the new chart depending upon the importance they will hold in the future and the extent of contact that they will require to maintain.

Step 5 : Once the exercise is complete ask participants to **compare the new chart with the old one**. Ask them to analyse the difference.

Step 6 : Ask the participants to **prepare an action plan** as to how they will go about building new linkages and strengthening the old ones. The following format can be used to prepare the action plan.

#	Name of Institution	Reasons for linking	Name of members responsible for initiating link	By when (date)	Constraints in linking	Ways to overcome constraints
						• How will you go about it? • Whose support do you need?

Stop and Check!

Are the participants able to list down the institutions with which they need to establish links and list the institutions with which their relationship needs to be strengthened? Have they been able to draw up an action plan to build new linkages and to strengthen the old ones?



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SECTION 6

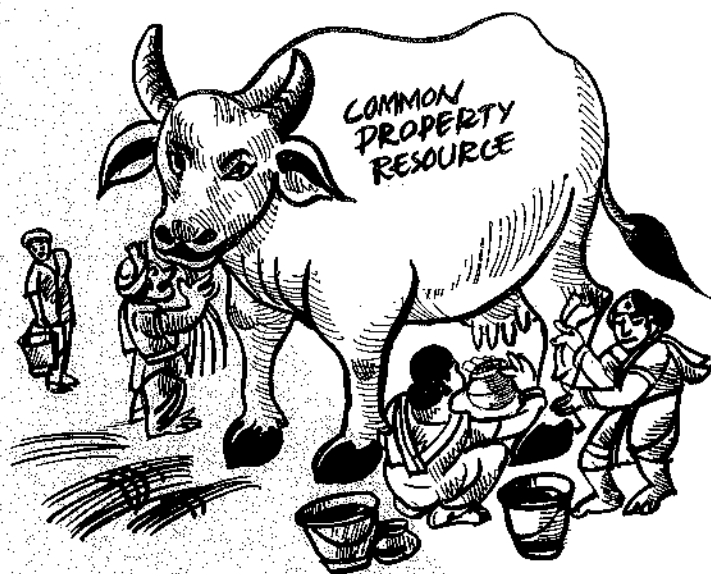
INSTITUTION BUILDING (PHASE III)



MODULES

- 6.1 Management of Common Property Resources (CPRs)
- 6.2 Towards Self-reliance of the WDA and Withdrawal of the Intervening Organisation
- 6.3 Vision Building and Action Planning

Management of Common Property Resources (CPRs)



Module Overview:

In the past, respect for nature was one of the guiding principles of life. A code of conduct for using common property resources (CPRs) existed. Strict observance of this code through self-imposed discipline and backed by the community preserved the common resource over the years. Violations were met with social sanctions, penalties and punishments.

The growth in population of people and livestock has led to increasing pressure on natural resources and the demand to increase open access to them. Uncontrolled consumption, a feature of modern lifestyles, has speeded up the destruction of natural resources. With the breaking up of old social structures, the enforcement of the code of conduct for CPR management has become weak. All this has led to a depletion of CPRs to such a degree that they cannot regenerate without intervention and investment.

Sessions

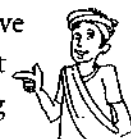
1	Topic	: Need to conserve and manage the CPRs
	Duration	: 45 minutes
	Methods used	: Guided dialogue, brainstorming
	Materials required	: Chart paper and markers
2	Topic	: Issues in CPR management
	Duration	: 45 minutes
	Methods used	: Brainstorming, lecture, case discussion and action planning
	Materials required	: Chart paper and markers, formats

Total Duration: 1 hour 30 minutes

In order to conserve and manage these resources, it is important to revive long lost traditions and institutions and to build on them. **This module is not designed to come out with firm and final action plans for management of common property resources because the WDA is not the appropriate forum**

for this. Planning for CPRs requires the participation of the entire village and especially the village Panchayat (as many of the common lands are Panchayat property) and hence should be taken up in the *Grama Sabha* or *Jana Sabha* (*Vasathi Sabha*)¹.

Facilitator's Note: This module should be introduced when the WDA members have gained confidence in handling conflict situations that might arise during discussions regarding CPR in the Gram Sabha and Gram Panchayat.



Module Aim and Objectives:

The aim of this module is to sensitise the WDA members about the issues involved in CPR management so that they take a lead to motivate the *Grama Sabha* to address issues related to CPRs and to evolve a plan to regenerate them.

At the end of the module the participants must be able to:

- Explain why common property resources need to be conserved and managed by the entire village
- Identify issues that may cause conflict in management of CPRs

¹ MYRADA recognises that the traditional Gram Sabhas do not function as the basic institution of Governance. It therefore seeks to promote regular monthly meetings of all the families in a habitation or a ward (*Jana Sabha* or *Vasathi Sabha*). These *Jana/Vasathi Sabhas* have the potential to influence the management of all local resources provided their institutional capacity is strengthened through regular training and appropriate systems.

Need to Conserve and Manage the CPRs

Session Objective:

At the end of this session the participants will be able to explain why common resources need to be managed by the village.

Session Duration: 45 minutes

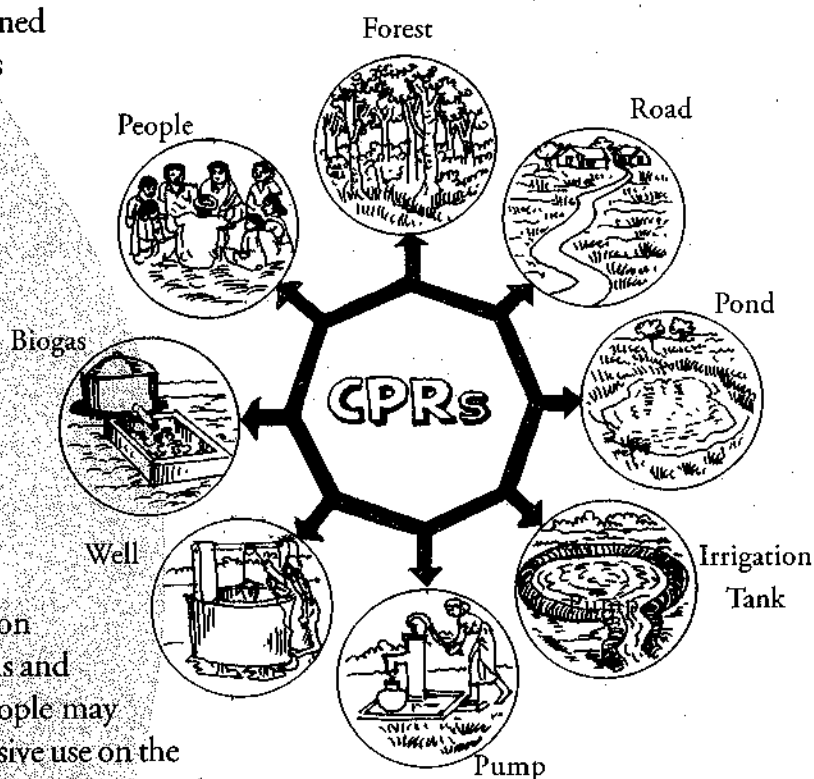
Methods Used: Guided dialogue, brainstorming

Materials Required: Chart paper and markers

CONTENT

Content 1.1: What is Meant by CPR?

Common property resources (CPRs) are broadly defined as natural resources which a group of people regularly use, though they may not own them. These resources include natural forests, village lands, grazing lands, streams, rivers, ground water, etc. These also include human-made resources like irrigation tanks, community wells and village roads. Some people may try to justify their exclusive use on the basis of traditional rights given by rulers in the past, others by their regular use over several years.



Content 1.2: Why are CPRs Important?

People are dependent on CPRs for a variety of needs, including water for domestic use and irrigation, minor forest produce like food, fruits, fibres, fertiliser, timber, medicinal herbs, fuel wood for cooking, fodder for animals etc. Some CPRs like forests are essential to maintain ecological balance.



Content 1.3: Why Should we be Concerned about CPRs?

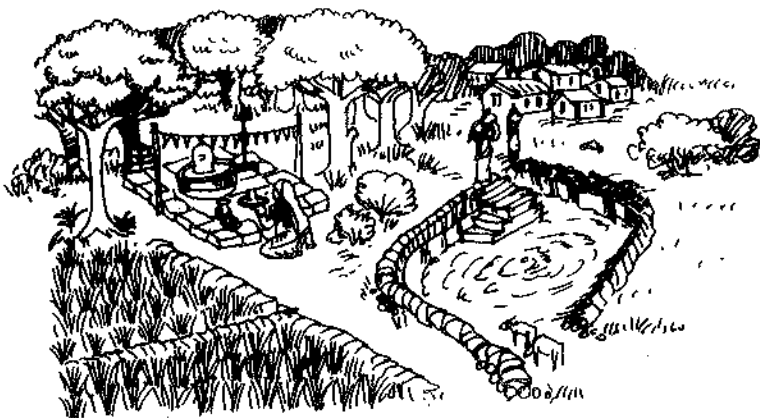
CPRs provide the community with basic essentials for life and almost all people have a stake in their well-being. In the past a strict code of conduct was followed for managing these resources. Violations were met with social sanctions. Increasing population and breakdown of traditional and social value systems have led to over-exploitation of natural resources. With dwindling respect for nature, the present generation is unconcerned about replenishing resources that belong to everybody but are owned by none; there are of course a few exceptions. If the same trend continues, the survival of future generations becomes difficult. In matters related to preserving common property, a few like the WDA or the village leaders, cannot take decisions on behalf of the entire user community. **Everybody who has a stake in the CPRs should come together to conserve and manage them; the WDA however should take the lead to start the process.**

Content 1.4: How can the WDA Make CPR Management Effective?

The WDA should...

- organise the entire village (call a *Grama Sabha* or *Jana/Vasathi Sabha*) while planning for CPR management.
- involve all the users including those who use CPRs but live in other villages, in the development and management of CPRs.
- develop and agree to clear guidelines on user rights and responsibilities of each person in maintaining and managing the CPR. Ensure equitable distribution of benefits among users.
- involve Panchayat Raj Institutions, the Forest Department, and other concerned departments while planning. This ensures their interest and support during implementation and management.
- be aware about the legal issues related to the CPRs and share this information with the community.
- mobilise enough resources from the community (besides other donors) so as to generate ownership feelings towards the CPRs.
- institutionalise and formalise people centred management systems and sanctions for rule breaking.
- keep the management system transparent and accountable to various stakeholders.

'In the past, whenever a new village was being located, people would first construct a tank, signifying the central role assigned to a tank in the development of the village. Along with the tank came the trees. Next came the temple, usually beside the tank, emphasising the vital link between the tank and the temple. This laid the basis for an interdependent code of conduct to maintain tanks, trees and temples. As a part of this, desilting of the tank at regular intervals was considered a community activity where everybody contributed labour and shared the valuable silt as manure for fields. The traditional grants given by the rulers for the construction and maintenance of tanks and effective supervision ensured proper upkeep of the tank, bunds and canal systems'.



Source: 'Resource Management in Rainfed Drylands – an information kit' by MYRADA and IIRR

Process:

Step 1 : Inform the participants about the objective of this module. (*refer Module Aim and Objective*)

Step 2 : **Guided dialogue:** Discuss the traditional ways of conserving and managing natural resources. Guide the participants to analyse the need to address the conservation and management of CPRs.

Guiding questions can be:

- What do you understand by common property resources?
- Can you list down the various CPRs in your village?
- Whom do the various CPRs belong to?
- Which families benefit more from different CPRs?
- What was the state of CPRs 30-50 years ago?
- How were they managed then?
- What is the state of all the common property resources in the village today?
- How are they managed today?
- Are the usufructs from the common property resources shared by any common agreement?
- As a result of the deterioration of common property resources, have the livelihoods of people been affected? Give examples.

Step 3 : Elicit answers. Supplement the discussion by giving examples of how nature was revered in the past.

Step 4 : Sum up by sensitising the participants about the need to conserve the common property resources (*refer Content 1.2, 1.3*) and the need for the village community to come together to do so.

'Devarakadu' in Karnataka – the Temple Forest

Even as far back as 1860, revenue records mention the existence of temple forests. These were temples surrounded by forests; out of respect, people never violated the code of conduct designed to preserve such forests. Sometimes specific species of plants were grown around the temples. These were revered as groves belonging to the temple and nobody dared to destroy them.

'Jhum' or shifting cultivation: In some parts of India, particularly in the North-East, some of the tribal people follow the system of shifting cultivation. In the past they cultivated a piece of land for 1-3 years and left it uncultivated for the next 7-10 years. This gave time for the land to regain its lost nutrients. However the time given for a field to recover is rapidly decreasing mainly due to human population pressures; in most places it has declined to 3-5 years. This reduces productivity rapidly.

Step 5 : Brainstorming: Who should be involved in planning for and development and management of CPRs? How do you make CPR management effective? Is it useful or possible to reactivate traditional systems of CPR management or is a new management system required?

Step 6 : Elicit answers and supplement using *Content 1.4*.

Stop and Check!



Are the participants able to explain the need to conserve and manage common property resources?

Session: 2



Issues Involved in CPR Management

Session Objective:

The objective of this session is to generate discussion on issues relating to CPR management.

Session Duration: 45 minutes

Methods Used: Brainstorming, lecture, case discussion and action planning

Materials Required: Chart paper and markers, formats

Tips to the Facilitators: To facilitate this module the trainer must be aware of various issues that are involved in the use and management of common property resources. He/she should quote clear and relevant examples to explain the issues.



CONTENT

Content 2.1: Some of the Issues Involved in CPRs

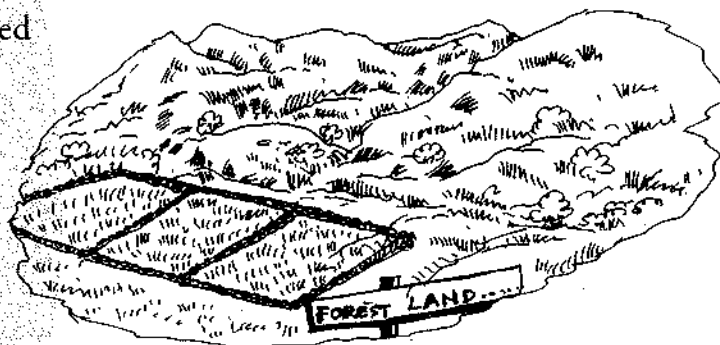
- Entry of contractors often with political connections who over-exploit forest, water and other resources (like sand, quarries, mud).
- Encroachment on the forest lands, revenue lands, Panchayat lands, tank beds, common lands, etc. for cultivation, grazing, housing and sand/soil extraction and expectation that these encroachments will be legalised.
- Laws prohibiting local people from collecting fuel, fodder, minor forest products, etc. in some of the forests.
- No institutional mechanism or arrangements between the government (forest department, etc.) and community as an institution, for sharing usufructs from CPRs.
- No clear demarcation of land indicating the forest boundary, revenue lands, tank beds and foreshores, roads, community spaces, etc.
- No institutions at the village level that can exercise control over CPRs.



Content 2.2: Issue: Encroachment of Common Land – an Example

The KAWAD watershed programme was introduced to the people of Siddaiyanakote village of Molakalmuru taluk in 1999. Lands of the people in this village come under the Kambarhalla watershed. Three

MWSDCs (Micro-Watershed Development Committee) and ten SHGs were formed in the village. Besides individual land treatment, the project focussed on common land treatment too. After taking permission from the Deputy Commissioner, members of

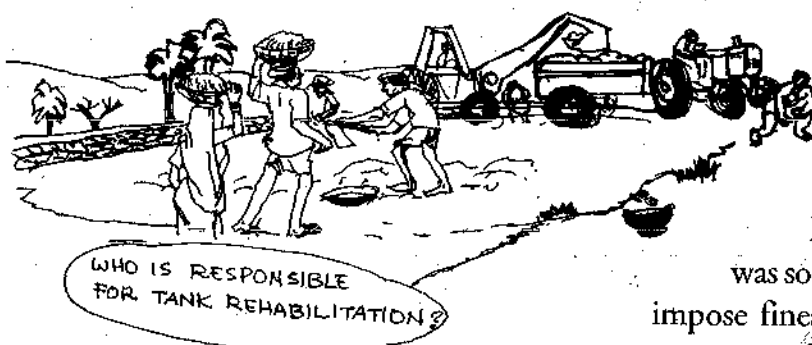


MWSDC started digging staggered trenches for soil and water conservation in 15 Hectares of revenue pastureland in the upper reaches of the watershed. The very next day three farmers from the village encroached a portion of this land for cultivation. This came as a surprise to the others, as all issues regarding the pastureland development were clearly discussed in all the MWSDCs before commencement of the work. On enquiry it was found that six farmers had encroached land in the area few years ago. Three other persons thought that this was the right moment to do the same, as under the pretext of treating common lands, their encroached lands would get treated and gradually they

could claim a *patta*. When confronted by the MWSDC, the three farmers agreed to forgo the land on the condition that others also did the same. The whole issue developed into a "big fight". Village meetings were called and the Panchayat was involved. The issue was resolved when the *Tahsildar* arrived on the disputed site with a surveyor and clearly marked out the boundary of the pastureland and reclaimed all encroachments.

Content 2.3: Issue: Management of a Tank – The Need to Involve All Stakeholders – an Example

In Varli, a village adjoining East Kodipalli, the village community mostly comprising of STs and SCs formed into a group '*Paryavarana Parirakshna Samithi*' (Tank Restoration Committee) and started protecting the tank with the help of an NGO working in Anantpur district.



Soon the trees on the tank bed grew into a thick grove. Management of the tank under the leadership of SCs and STs was so effective, that they could

impose fines for violating common property norms developed on their own.

Income from fishing alone was Rs. 20,000 in one year and the sale of thorny bushes in and around tank yielded Rs.6,000. The tank came under the Panchayat Raj Department, and no Water Users Association was constituted for it as required by the department. Since the tank bed areas was a common resource, the tank restoration committee did not have any official status to take up restoration activities. The NGO had written permission from the Mandal Revenue Officer (MRO) for taking up such activities in other areas but could not get similar sanction in this Mandal.

Signs of conflict appeared in the village community when the allocation of incomes from the tank was discussed. The tank restoration committee felt that income from the tank should be spent for the welfare of the community and proposed laying *kucha* roads in the *dalit* colony. A few well off and influential people did not support the idea and decided to spend the money for laying "*bodrayi*" (the stone at the centre of the village revered by villagers). The next year, money earned was spent on temple-related activities, again due to insistence of influential people. All this created a conflict in the community between the few influential rich and the poorer SC/ST families. This resulted in the death of a Tank Committee member and overnight felling of trees by miscreants.

Source: Troubled waters – A study on Tank Management Institutions in Rainfed Areas of Andhra Pradesh – A report by Dr. Davuluri Venkateshwarlu and Dr. K.Srinivas for SDC/IC NGO Programme, Andhra Pradesh.

Content 2.4: Issue - Protection of Grazing Lands

Many WDAs decide to protect grazing lands in upper reaches by forbidding free access to it, so that they can regenerate. However they are faced with several problems which have to be resolved. The poorer, usually landless families (who are not members of WDA) depend on these lands to collect fuel and often to graze their animals. The decision taken by the WDA is unacceptable to them as it comes in the way of their livelihoods. This creates a conflict situation. Hence WDAs are advised to involve all resource users while planning for common resources, so that interests of both parties is protected.



In MYRADA's experience WDAs do not start by trying to manage common grazing lands which have open access. They start by protecting and managing lands where titles to ownership are clear. Examples are temple lands and private lands lying fallow. In the latter case, the WDA enters into an agreement with the absentee owner to share the biomass. In many watersheds the WDA allows the landless to collect fuel and fodder from these protected areas.

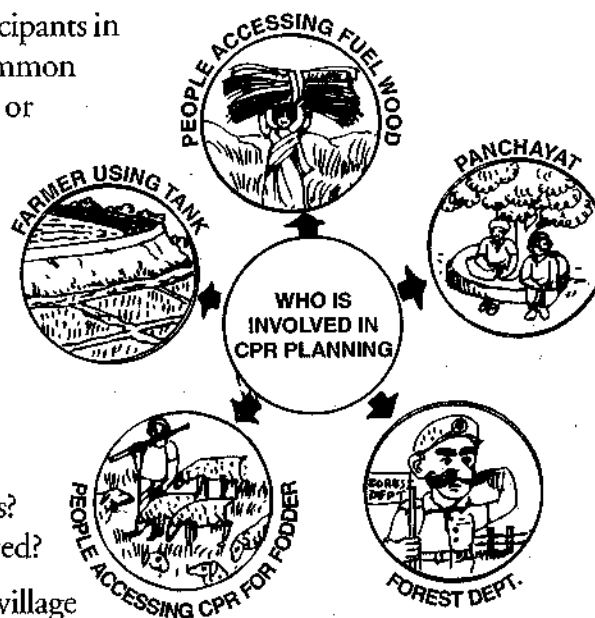
It is only after two or three years, when the WDA is more confident of managing common grazing lands with high potential for conflict, that it begins to take up some initiatives. The WDA tries to convince people to protect small parts of the common grazing lands. These protected areas then regenerate, as there is rootstock available. The grass in such protected areas is allowed to be harvested on cut and carry basis, sometimes on the payment of small token amounts.

Process:

Step 1 : Brainstorming: Assist the participants in identifying issues regarding common property in their watershed or village.

Guiding Questions:

- What are the possible issues that might arise if dialogue for developing CPRs is initiated in the village village/ Gram Sabha?
- Were there any conflicts in the past over any of the CPRs? If yes, how were they resolved?
- Who are the people in your village who are dependent on forests,



pasture, tanks, etc. for consumption or for income generation? What are the problems they have to face? How are they overcoming them?

Step 2 : Using examples from the field (*refer Content 2.1*), sensitise the participants about various issues that might arise while working with CPRs. Give examples of cases where people have sorted out such issues.



Stop and Check!

Are the participants able to list out few issues related to the Common Properties in their watershed?

The Follow-up Required

Motivate the participants to discuss the learnings from the sessions with other people or institutions in the village. Suggest that they arrange a *Gram Sabha/Jana Sabha* to carry out an exercise for CPR management. Ask them to ensure that all the stakeholders and concerned departments are invited.

The NGO/ intervening organisation can prepare for and facilitate this meeting as given below:

- Assess the status of CPRs in the watershed. A sample format for the same is given below for reference.

Type of CPR and extent	Who owns the CPR	Who uses the CPR and for what purpose	Status of CPR	Current Management System				Major issues
				Who manages	How are activities monitored	Where do funds come from (for maintenance)	What is the system for sharing benefits	
Tank – 15 acres	Panchayat	Farmers for irrigation (for growing paddy)	Silted. Bund is breached at places.	Tank users committee manages outlet	Ad hoc	Only once the tank bund was repaired and the money was spent by the Panchayat	System for irrigation – based on traditional water rights	Only farmers who benefit from irrigation are interested in improving the tank
		All families for washing	Channels are blocked	or Nobody			None for other users	
Village forest- 45 acres	Forest department	All families for fuelwood. 13 families for fodder 5 families for grazing	- Degraded - Encroach	Nobody	No system	N.A.	No system. Anybody can collect any amount of fuel wood. There are no norms for collection of fodder or for grazing.	Encroachment by some farmers
Etc....								

- Find out if they have a vision for their CPRs. Ask them to describe the vision
- Work out an action plan for management of CPRs. Sample format given below:

Items	Details of the Management Systems for the future	Responsibility sharing by various institutions (the primary management institution is the <i>Grama Sabha</i> , but other institutions like the WDA/SAG can also be involved)			Benefit sharing mechanisms		Cost sharing/ investment	Time frame	Major issues	How will they be resolved
		<i>Grama Sabha</i>	WDA	SAGs	Landless & other poor	Other Resource users				

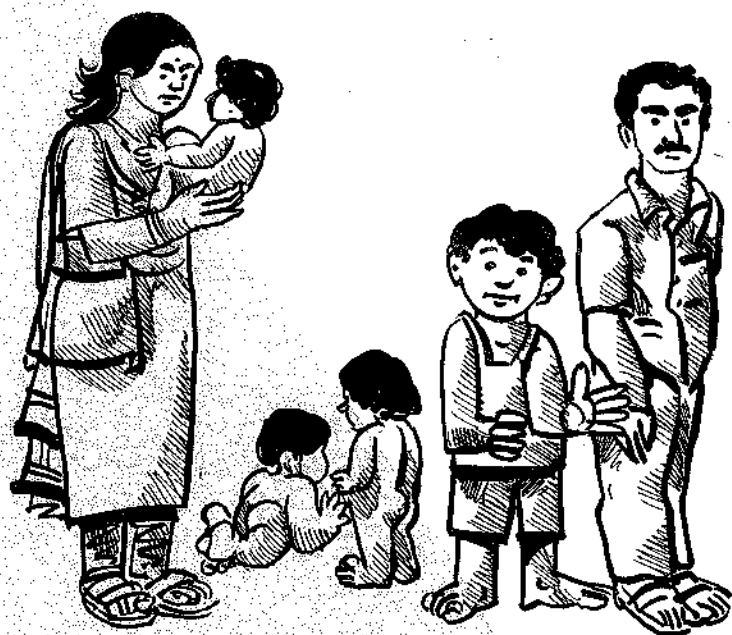
- Record the decisions taken.

Facilitator's Note: This need not be a one time exercise but can be conducted based on the issues that arise while discussing CPR Management in the entire village community.



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Towards Self-reliance of the WDA and Withdrawal of the Intervening Organisation



Module Overview:

Just as the entry into a village is a gradual process, similarly withdrawal from it is also a gradual process. Generally watershed projects (specially the government projects) span 4-5 years. During this period the intervening agency has to ensure that the WDA builds up its institutional capacity to sustain itself on its own without depending on outside agencies for continuous support. This phase of WDA (its ability to increasingly manage without external support) is termed as graduation and signals the withdrawal of the intervening organisation (scaling down of its support) from the area. The intervening agency has to start preparing the WDA for this stage from the "first day" of its intervention.

Module Aim and Objectives:

This module attempts to help the participants to formulate indicators to assess the ability of their organisation to manage itself and watershed related activities, without the continuous

Sessions

1	Topic	: Understanding Graduation and Withdrawal
	Duration	: 1 hour
	Methods used	: Brainstorming, discussions, display of pictures and lectures
	Materials required	: Chart paper and markers, pictures
2	Topic	: Has our WDA reached a stage of self-reliance?
	Duration	: 1 hour
	Methods used	: Brainstorming, lecture, discussion
	Materials required	: Chart paper and markers
3	Topic	: Action planning to move towards sustainability
	Duration	: 1 hour
	Methods used	: Sub-group discussion, plenary presentation
	Materials required	: Chart paper and markers, table developed in Session 2

Total Duration: 3 Hours

assistance of an outside agency. The members will realise the need to regularly measure their institution against these indicators to assess the strengths and weaknesses and to formulate action plans to improve continuously.

At the end of this module the participants will be able to:

- Describe what withdrawal of an intervening organisation implies and state why it should withdraw from a working area
- List down various assessment indicators for their WDA's sustainability
- Assess the accomplishment/performance of their WDA against these indicators and decide whether it is ready to function as a self-reliant organisation
- Plan out specific actions to improve any areas that are essential for the WDA to become self-reliant. (If the WDA qualifies to function independently, then plan to sustain its growth)

Understanding Graduation and Withdrawal

Session Objectives:

At the end of this session the participants will be able to

- describe what is meant by 'graduation' for a WDA
- describe what withdrawal of the intervener from the watershed programme involves
- state reasons for the withdrawal of an intervening organisation

Session Duration: 1 hour

Methods Used: Brainstorming, discussions, display of pictures, lectures

Materials Required: Chart paper and markers, pictures

CONTENT



Content 1.1: What is meant by 'Graduation' for a WDA?

A WDA can be said to have reached the graduation stage when it is in a position to manage itself and its various activities without "hand holding" by an external organisation. It does not mean that the WDA has reached self-reliance or achieved its Mission and objective. In fact, it only means that the WDA has reached a certain level, where it has the ability to carry-on on its own with reduced inputs – in terms of finances as well as facilitation, from the intervening organisation. It also means that the WDA can mobilise required resources for improvement of natural resources and livelihoods. However, even on becoming wholly independent of the Intervening Organisation, the WDA still nurtures mutually beneficial relationships with other institutions like banks, government departments, agricultural university, etc.

Content 1.2: Why does the Intervening Organisation Withdraw from a Watershed Programme?

- Usually the NGO or intervener receives financial support from donors to work with particular communities or groups in a particular geographical location for a limited amount of time. Once this is over, they may withdraw or scale down support.
- Continued support from the intervener creates a sense of dependency among the community. This should be discouraged and hence the Intervening Organisation withdraws after building people's capacities to manage their own institutions.

A project period of 3-4 years is often considered to be adequate to implement the objectives of the Project. But in MYRADA's experience this is often not adequate and can, if rushed through, undermine (unintentionally) the process of building a strong foundation for community based organisations; a further two years of involvement, perhaps at a reduced level, is required.

Content 1.3: What does Withdrawal Mean for the Intervening Organisation?

- Withdrawal of financial support to the WDA.
- Reducing the frequency of visits to the WDA by the staff of the NGO.
- Ensuring that the WDA has internalised its Vision for future development and sustenance and developed strategies to achieve this Vision. (This is explained in detail in *Module 6.3: Vision Building and Action Planning*).
- Ensuring that the WDA members are equipped with the skills and confidence required to achieve their Vision.
- Ensuring that the WDA has established linkages with financial and other support organisations.

An intervening organisation can withdraw when:

- All the activities projected and planned by the intervener and the WDA have been completed satisfactorily and on time; budgets have been spent satisfactorily.
- All the training and capacity building packages that were considered essential to build institutional capacities have been conducted for the WDA.
- All the systems and procedures that are considered to be critical for the functioning of a WDA are in place. These include organisational management systems, financial management systems and monitoring and evaluation systems of various kinds.
- The WDA has been linked adequately with financial institutions and other institutions such as service and input providers in the private sector, universities, government departments, etc.

Process:

Step 1 : Lecture: Explain why an Intervening Organisation or an NGO needs to withdraw from an area of operation. (refer *Content 1.2*). Give specific reasons for withdrawal of your organisation from the WDA.

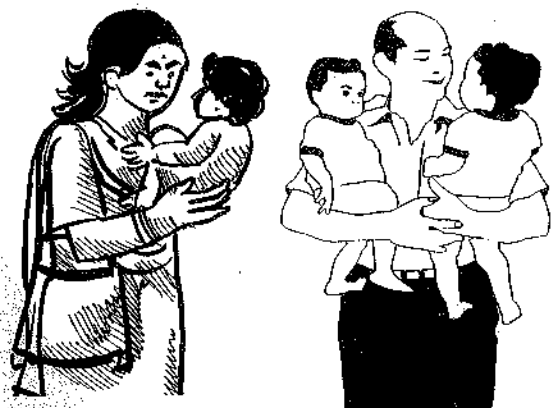
Step 2 : Brainstorm the participants about how your agency's interactions/ association with the WDA have changed over time.

Key Question: Can you remember how we approached you for the first time? Have you noticed a change in our interactions with the WDA over time?

Step 3 : Seek participants' responses and note the differences over time.

Step 4 : Display *Figure 1* and *2* and explain them. Relate these to the changing relationship between the Intervening Organisation and the WDA. (In the initial years the Intervening Organisation has to nurture the WDA like the parents and the mother bird in the illustrations. Once the WDA shows signs of sustaining itself, the Intervening Organisation starts thinking of withdrawing from the area).

Figure 1: Bringing up your children



When the children are young, they need care and support of parents. When they grow up they are in a position to take care of themselves.

Figure 2: Relation between bird and chick



Mother bird feeds its baby when it is small. When the mother is confident that the baby has grown up and is ready to fly, the mother lets it go.

Step 5 : Brainstorm the participants as to when they think the Intervening Organisation should withdraw.

Key Question: When do you think that the intervening NGO/organisation can scale down its support to your WDA?

Probable answers are:

- When we are able to manage the daily affairs of our organisation without external help – like conducting regular meetings, keeping up-to-date records and accounts, changing leaders regularly, etc.
- When we have enough funds in our WDA to invest in watershed related activities
- When we are confident to start and complete new initiatives
- When we have enough linkages with other external agencies to mobilise essential services that our village needs
- When we are able to solve major conflict situations successfully
- Etc.

Step 6 : Explain when an Intervening Organisation can withdraw from the WDA. (refer Content 1.3).

Stop and Check!

Are the participants able to describe what is meant by withdrawal of the intervener from the watershed management programme and when they should withdraw? Can they list out some of the more important reasons why an intervener withdraws?



Has our WDA Reached a Stage of Self-Reliance?

Session Objectives:

At the end of the training session participants will be able to :

- develop indicators to assess whether their WDA has reached the stage of self-reliance
- assess their WDA against these indicators

Session Duration: 1 hour

Methods Used: Brainstorming, lecture and discussions

Materials Required: Chart paper and markers



CONTENT

Content 2.1: Essential Features of a Self-Reliant Organisation

- **Vision and Mission:** The WDA has a clearly stated Vision, Mission and objectives as well as plans to achieve them. The members have developed action plans to achieve their vision/mission. Further the WDA has acquired the skills to review and reformulate its Vision/Mission and action plans.
- **Organisational Management:** The organisation is able to manage its daily activities on its own; it utilizes adequate supporting systems required to carry out its activities in an organised and transparent way.
- **Financial Management:** The organisation raises resources for its activities on its own and has acquired the discipline to keep its accounts books and documents updated. The members are able to answer questions regarding the WDA's financial position.
- **Organisational Accountability:** The organisation has systems and procedures that are required in order to be accountable to the members, to lenders/donors, and to the community. These may include minutes of its meeting and reports of audits and evaluation.

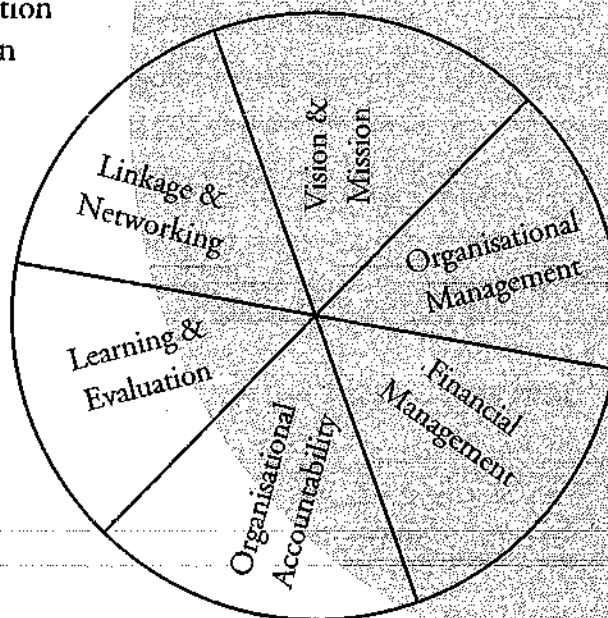


Figure 3 : Features of a self-reliant organisation

- **Learning and Evaluation:** The organisation periodically assesses its strengths and weaknesses. It increases its members' knowledge and skills through appropriate courses and also has the practice of supporting its members to learn from each other and from exposure to other similar institutions.

The organisation has mechanisms to constantly monitor its activities and share the learning with its members.

- **Linkages and Networking:** The organisation has built effective linkages with other institutions and mobilised various resources like funds, training, benefits from other schemes, etc.

If WDA attains these characteristics it can be termed as a self-reliant institution.

For detailed reading on the essential features of an organisation that is functioning well, refer to *MYRADA Rural Management Systems Series Paper 33*, popularly known as RMS 33 (now downloadable from MYRADA's website: www.myrada.org)

Process:

Step 1 : Brainstorming: to elicit their views about a self-reliant organisation.

Key Question: What do you think are the features of a self-reliant (independent) institution?

Step 2 : Elicit answers for the above and supplement them with important features given in *Content 2.1*. (Encourage the participants to add their own features and prioritise them).

Step 3 : List these down in a table (sample format given below) in *column 2*.

Step 4 : Encourage the participants to give clear indicators describing each feature and put this down in *column 3*.

Sample format for assessing the WDA

Sl. No	Features of a self-reliant organisation	Indicators for the WDA to graduate	Where do we stand?	Areas for development/ improvement
1	2	3	4	5
1	Vision and Mission	The WDA should have a clear Vision and Mission which has been developed in a participatory manner	Has been developed in a participatory fashion which is exhibited in the meeting room.	Efforts are required to keep up with action plans drawn to achieve a new expanding vision.
2	Financial management systems	The WDA has evolved good book keeping systems and keeps its books and documents updated	All the books are being regularly updated by the book-writer	Loan repayment has to be streamlined; Monitoring systems for loan repayment need to be developed
3	...			

Step 5 : Ask the participants to assess where their WDA stands with regard to the points listed. Record these in *column 4* of the table as indicated.

Step 6 : Against each of the points, ask the participants to list down areas of further development or improvement in order to work towards the 'self-reliance' stage. Record these in *column 5*.



Stop and Check!

Are participants able to list out indicators to assess whether their organisation has reached a stage where they can function independently of the Intervening Organisation? Are they able to list areas that need to be strengthened?

Facilitator's Note: Some of the WDAs in MYRADA's Holalkere and Huthur projects are undergoing regular participatory self-assessment exercises (assessment of the WDA by its own members in order to build up their institution). The Projects have evolved criteria for assessment and grading which has been enclosed as Annexure at the end of this module. Conducting such exercises regularly helps the WDA to assess itself in terms of organisational management and programme implementation. This also helps the intervening NGO to plan the process of withdrawal.



Session: 3

Action Planning to Move Towards Sustainability

Session Objectives:

At the end of the training session participants will be able to develop action plans for areas which require improvement (as per Session 2), in order to enable them to move towards building a sustainable institution.

Session Duration: 1 hour

Methods Used: Sub-group discussion, plenary presentation.

Materials Required: Chart paper and markers, table developed in the Session 2. (The Vision Building Documents of the WDA may also be referred to.)

Process:

- Step 1 : Ask the participants to prioritise areas for improvement listed in the table developed in Session 2.
- Step 2 : Divide participants into sub-groups so that each group can take two areas for discussion.
- Step 3 : Ask participants to list out concrete steps or actions under each selected point – and record it on chart paper in a table as shown below.

Sample format:

Indicator: Vision and Mission: The WDA should have				
Improvement identified: Efforts are to be made to keep up with action plans drawn to achieve a new or expanding vision.				
Action to be taken	By whom? Who takes the responsibility?	How will they do it?	Whose and what support will they need?	How much time do they require?

Step 4 : After the stipulated time ask participants to present their action plans in the plenary. Record comments from other participants.

Step 5 : Support the WDA to record these decisions in its minutes book.

Stop and Check!

Have participants developed plans to work towards building a sustainable institution?
Are these plans recorded as guidelines for future follow-up?

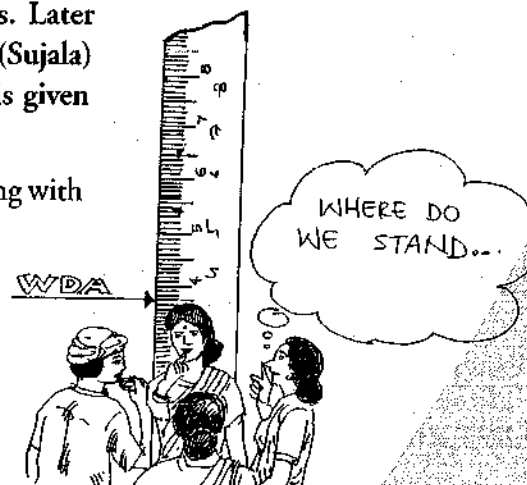


SELF ASSESSMENT CRITERIA FOR WDAs

Annexure

NOTE: The format given below was first developed by MYRADA Huthur and Holalkere projects. Later this was changed and adapted in the KWDP (Sujala) project in Karnataka. The adapted version is given here.

This can be an annual exercise worked out along with the WDA members. Based on the stage of progress of the WDA, the criteria given below can be considered for evaluation. All 16 criteria cannot be considered to evaluate the WDA at various stages. For example: a group which is a year old, cannot be expected to have established 100% linkages; or a group which has not yet completed 50% implementation of activities cannot be expected to plan strategies for management of CPR. Based on the format given below organisations working in different watershed projects can develop their own grading criteria.



Sl.#	Criteria	Means of Verification	Good	Average	Poor
1.	Concept of WDA	- Direct interaction - Interviewing the members	75% of the members are clear about the WDA concept	50 - 74% of the members are clear about the WDA concept	Less than 50% of the members are clear about the WDA concept
2.	Membership	- Admission & Minute Book - Cadastral map and Khatedar list	90% farmers of the mini-micro-catchment have enrolled in the WDA. - All enrolled members have paid membership fees to the WDA - Size: 30-40 members	50-89% farmers of the mini-micro-catchment have enrolled in the WDA. - All enrolled members have paid membership fees to the WDA - Size: 25-30 or 40-50 members	30- 50% of the mini-micro-catchment have enrolled in the WDA. - Only a few members have paid membership fees - Size: less than 25 or more than 50
3.	Meetings	- Minutes book - Interaction	- Regular weekly/ fortnightly meeting conducted in a common place, fixed time - Meetings conducted on their own	- Meetings scheduled weekly/ fortnightly- Not conducted regularly - Often facilitated by NGO staff	- Irregular meetings, - Depend on NGO staff to call for a meeting
4.	Attendance	- Minutes book - Attendance register	More than 90% attendance in meetings	50 - 89% attendance in meetings	Less than 50% attendance in meetings

Sl.#	Criteria	Means of Verification	Good	Average	Poor
5.	Participation in decision making	• Observation in meetings • Minutes book	• Issues discussed properly and decision taken by atleast 85% of those who attended the meeting	• Discussed and decided by atleast 70% of the members with the support of NGO staff	• Only few take decisions with the support from NGO staff
6.	Office Bearers (representatives)	• WDA resolution book	• Changing once a year	• Changing once in 1 - 2 years	• Not changed since inception
7.	Account Opening and management	• Bank pass book • Cheque book • Minute book; & • Other records	• Bank Account opened within three months of WDA formation. • Operated by 2 representatives	• Bank Account opened within six months. • Operated by 2 representatives	• Bank account opened after 6 months of WDA formation.
8.	Cash Handling	• Meeting book • Cheque book • Bank Pass book • Audit reports • Interaction with members	• Bank remittance in time • Payments through cheques	• 1 - 2 day delay in remittance • Payment in cash	• 3 - 6 day delay in remittance - Cash in hand • Payment in cash
9.	Book keeping	• Verification of documents, books and records	• Required set of books maintained & updated systematically & regularly • All members aware of the importance of books • Book writer is not a signatory to the cheques	• Required set of books maintained & updated systematically & regularly • Atleast representatives and active members are aware of books to be maintained	• No regular maintenance and updation of books • More dependency on NGO staff • Representative is also the Book writer.
10.	Rules & Regulations	• Minutes book • Interaction with members • Cash book reflects the sanctions being imposed	• Framed & accepted by all • Minuted in the book • Rules being followed strictly • Sanctions are being imposed for violation	• Book writer is not a signatory to the cheques • Framed & accepted by all • All rules minuted • Rules often being violated • Sanctions are being imposed	• Few rules framed by representatives and active members • All members not aware of the rules • Not minuted • Sanctions are not being imposed
11.	Training	• Training records • Interaction with the members	• All trgs. and exposure conducted as per schedule	• More than 75% of the trgs. and exposure conducted as per schedule	• Less than 75% trgs. and exposure conducted as per schedule

Sl.#	Criteria	Means of Verification	Good	Average	Poor
			75-100% attendance in all trainings - All members recall and use the learnings often.	50-75% attendance in trainings - Only few recall and use the learnings.	- Less than 50% attendance in training - Most cannot recall any learnings
12.	Participatory planning and budgeting	- Planning documents pertaining to the Area Group - Minutes books - Interaction with members	70-100% members participated in the planning process 75-100% of the members know the activities planned on their lands as well as on common land in their area - All documents related to activities planned for the particular area are available in the Area Group	50-70% of the members involved in the planning process 50-75% individuals know the activities planned on their lands and on common land. - All documents related to activity planned available in the Area Group	- Less than 50% members involved in the planning - Less than 50% members are aware about the activities planned on their own land and on common land. - Planning documents pertaining to the group are not available with the group
13.	Programme implementation	- Minutes books - Interaction with members - Planning documents pertaining to the Area Group - Field visit	- Strategies for implementation discussed, evolved and documented - known to 80-100% members - Above 90% of the members are aware about the activities planned on their land - Above 80% of the members are aware about the activities planned on the common land - Above 75% of the work implemented as per plan	- Strategies for implementation discussed, evolved and documented - known to atleast 50-69% members - Between 80-90% of the members are aware about the activities planned on their land - Between 70-80% of the members are aware about the activities planned on the common land 60-75% of the work implemented as per plan	- Strategies for implementation not discussed but may be known to only representatives and few members. - Less than 80% of the members are aware about the activities planned on their land - Less than 70% of the members are aware about the activities planned on the common land - Below 60% of the work implemented as per plan
14.	People's Contribution	- Minutes books - Interaction with members	90-100% members are aware about the total cost involved on their land and the	75 - 89% members are aware about the total cost involved on their land and the volume of	Less than 75% members are aware about the total cost involved on their land and

Sl.#	Criteria	Means of Verification	Good	Average	Poor
			- volume of contribution to be paid. - Strategies have been worked out to collect contributions for both individual and common lands; more than 90% members are aware of these strategies - More than 90% members have paid their contribution as per the plan. A year old group should have planned for collecting contribution towards Operation and Maintenance	- contribution to be paid. - Strategies have been worked out to collect contributions for both individual and common lands; 75 - 89% members are aware of these strategies 75 - 89% members have paid their contribution as per the plan. A year old group is in the process of planning for collecting contribution towards Operation and Maintenance	- the volume of contribution to be paid. - No strategies have been worked out to collect contributions for both individual and common lands - Contribution payment is not regular. A year old group does not have any plans for collecting contribution towards Operation and Maintenance
15.	Work Certification	- Qualitative & quantitative work in the field - Minutes book - Measurement book - Interaction with Area Group members	75% WDA members know all type of work measurement techniques & follow them. - Maintain all documents related to measurements	50-74% WDA members know all type of work measurement, techniques & follow them. - Only minimum documents/ registers are maintained	Only the representatives and active members know the measurement techniques and follow them.
16.	Audit	- Audit reports - Follow up reports - Discussions recorded in minutes book, books of accounts	- Audit given importance - Audited half yearly - Action taken on audit observations	- Audit not given much importance - Audited annually - Not much importance given to audit observation	- Records are not maintained - No audit

Assess the WDA on the above 16 criteria based on the indicators mentioned in the 'Good', 'Average' and 'Poor' categories. Based on the assessment put a T in the respective column in the grading sheet. For example on assessing the WDA on the 'concept', if the group feels that it can be rated as 'average', put a T in the column for 'Average' against the indicator - 'Concept of WDA'.

Grading Sheet for WDAs (filled only as an example)

Sl.#	Criteria	Good	Average	Poor	Observations of the Facilitator
1.	Concept of WDA	✓			
2.	Membership	✓			
3.	Meetings		✓		
4.	Attendance		✓		
5.	Participation in decision making		✓		
6.	Office Bearers (representatives)	✓			
7.	Account Opening	✓			
8.	Cash Handling	✓			
9.	Book keeping	✓			
10.	Rules & Regulations		✓		
11.	Training		✓		
12.	Participatory planning and budgeting	✓			
13.	Programme implementation	✓			
14.	People's Contribution			✓	
15.	Work Certification			✓	
16.	Audit			✓	

Opinion of the facilitator about the group as a whole

What are your suggestions for improvement of the group?

Based on the completed grading format, following grading criteria can be adopted:

Criteria for Grading (filled only as an example):

Criteria	Marks for each criteria	Total scored under each criteria (Total ✓ under good, average and poor)	Total marks scored
Good	3	8	24
Average	2	5	10
Poor	1	3	3
Total		16	37

Give 3 marks for each good, 2 marks for each average and 1 for each poor. Total the scores for Good, Average and Poor. Maximum a group can score is 48 (16X3) and minimum it can score is 16 (16X1). Convert these into percentage in the manner given below:

$$\frac{\text{Actual score}}{\text{Maximum score}} \times 100$$

Working with the example given above:

$$37 / 48 \times 100 = 77\%$$

In which category the group stands

If the group achieves:

75% and above it can be graded as 'Good'

50% - 74% it can be graded as 'Average'

Less than 50% it can be graded as 'Poor'

In the above example, since the group has scored 77%, it is graded as 'Good'.

DATE	DESCRIPTION	AMOUNT	CHECK NO.	BANK	INITIALS
10/1/20	DEPOSIT	100.00		CHASE	JD
10/5/20	PAYROLL	500.00	1001	CHASE	JD
10/10/20	RENT	200.00	1002	CHASE	JD
10/15/20	UTILITIES	75.00	1003	CHASE	JD
10/20/20	SALES	300.00	1004	CHASE	JD
10/25/20	DEPOSIT	150.00		CHASE	JD
10/30/20	PAYROLL	500.00	1005	CHASE	JD
11/5/20	RENT	200.00	1006	CHASE	JD
11/10/20	UTILITIES	75.00	1007	CHASE	JD
11/15/20	SALES	300.00	1008	CHASE	JD
11/20/20	DEPOSIT	150.00		CHASE	JD
11/25/20	PAYROLL	500.00	1009	CHASE	JD
11/30/20	RENT	200.00	1010	CHASE	JD
12/5/20	UTILITIES	75.00	1011	CHASE	JD
12/10/20	SALES	300.00	1012	CHASE	JD
12/15/20	DEPOSIT	150.00		CHASE	JD
12/20/20	PAYROLL	500.00	1013	CHASE	JD
12/25/20	RENT	200.00	1014	CHASE	JD
12/30/20	UTILITIES	75.00	1015	CHASE	JD
1/5/21	SALES	300.00	1016	CHASE	JD
1/10/21	DEPOSIT	150.00		CHASE	JD
1/15/21	PAYROLL	500.00	1017	CHASE	JD
1/20/21	RENT	200.00	1018	CHASE	JD
1/25/21	UTILITIES	75.00	1019	CHASE	JD
1/30/21	SALES	300.00	1020	CHASE	JD
2/5/21	DEPOSIT	150.00		CHASE	JD
2/10/21	PAYROLL	500.00	1021	CHASE	JD
2/15/21	RENT	200.00	1022	CHASE	JD
2/20/21	UTILITIES	75.00	1023	CHASE	JD
2/25/21	SALES	300.00	1024	CHASE	JD
2/28/21	DEPOSIT	150.00		CHASE	JD

[illegible]

Vision Building and Action Planning



Module Overview:

A vision is a picture of what an organisation wants to be or to achieve in the long term. Every institution must possess a vision of its own, in order to motivate its members and to direct its energies and bring about positive and sustained change. This module describes the method to build a vision for a WDA using the Appreciative Inquiry¹ approach.

Experience shows that this exercise should be conducted after the group is in existence and functioning for at least 2 years.

Module Aim and Objectives:

At the end of this training module participants will have

- Articulated the strengths of the WDA
- Developed a vision for the WDA
- Developed plans of action to achieve their vision

Sessions

1	Topic	: Discovering the strengths of the individual
	Duration	: 2 hours
	Methods used	: Games, story-telling, guided dialogue, sub-group discussion and drawing
	Materials required:	Chart paper and markers, crayons and poster colours
2	Topic	: Discovering the strengths of the WDA
	Duration	: 2 hours
	Methods used	: Games, story-telling, guided dialogue and sub-group discussion
	Materials required:	Chart paper and markers, crayons and poster colours
3	Topic	: The WDA dreams of a bright future
	Duration	: 2 hours
	Methods used	: Brainstorming and group discussion
	Materials required:	Chart paper and markers, crayons and poster colours
4	Topic	: How to make dreams come true - action planning
	Duration	: 2-3 days
	Methods used	: Lecture, sub-group discussion, guided dialogue and brainstorming, action planning methodologies and energisers
	Materials required:	Chart paper and markers, action planning format and calculator

Total Duration: 6 hours + 2-3 days for action planning.

¹ To know more about Appreciative Inquiry methodology refer the IISD MYRADA Appreciative Inquiry Field Guide: The Positive Path – Using Appreciative Inquiry in Rural Indian Communities.

Facilitator's Note: The Appreciative Inquiry approach has been used in this module. Trainers must be familiar with the approach in order to facilitate the sessions. The sessions are best facilitated by a team of at least two persons, one of whom is familiar with the WDA.



Record all results of the exercises on paper so that the WDA can preserve the same for the future. Hence working on the blackboard is not recommended unless all that is written or drawn is transferred to paper immediately.

Once the WDA has articulated its vision, all members must sign on it and it must be displayed in a prominent place and referred to regularly during their meetings.

In case time is insufficient for the entire exercise, do not rush with the process but ask the group to find additional time to complete it.

Discovering the Strengths of the Individual

Session Objectives:

At the end of the session the participants will be able to identify the strengths of individual members based on real life experiences and also individual members' aspirations related to their land.

Session Duration: 2 hours

Methods Used: Games, story-telling, guided dialogue, sub-group discussion and drawing

Materials Required: Chart paper and markers, crayons and poster colours

CONTENT

Content 1.1: Personal Strengths

Every one of us has strengths. Each of us also has achieved something in our lives in spite of all the hardships and challenges. Similarly, every WDA will have strengths because it consists of people with strengths working together. These strengths are personal, and are not entirely dependent on the support of the WDA or other external institutions. By telling stories of our past successes we can discover the strengths in each of us – strengths that we have displayed in the past.

Content 1.2: Importance of Land for an Individual

Our land has special meaning to us. Some of us call it our mother and some call it a Goddess. This land gives us our food, clothes, shelter and everything that we can aspire for. All of us have a special bond with our land – we are a part of it.

Process:

Step 1 : Introduce yourselves and the purpose of the session.²

(Clarify to the participants that in the session everybody must concentrate on their strengths and not their problems).

Step 2 : Begin the Personal 'Discovery' process by asking open-ended questions, which encourage story telling and narratives. Ask people to talk about something they have achieved by themselves and in which they take pride. (refer Content 1.1).

² It is important to communicate to the WDA members that this session is to facilitate vision building in the group and not to evaluate their past performance. Also take care that you do not raise false expectations in the group.



Guiding question: Tell us the story of a time when you faced a challenge and achieved something you still feel proud of.

Step 3 : Give some time for the participants to reflect on the question and then ask the volunteers to share his/her story in the plenary. At the end of each story appreciate the narrator and ask the following questions to the audience:

Key Question: What strengths did the narrator display in this story – what were the reasons for her/his success?

Step 4 : Summarise the strengths displayed by the person in the particular incident and record them on chart paper.

Step 5 : Divide the group into subgroups of 4-6 persons each. Ask each of them to narrate stories about their achievements in their sub-group. Ask the literate persons in the group to record the strengths, enabling factors and high points in each of the cases on chart paper after discussing with the group.

Step 6 : Ask the sub-group leader to present the strengths of individual members of his/her team.

Step 7 : Refer Content 1.2. Move to the next set of questions in subgroups again.

- Can you describe why you like your land and the natural environment in your village? Can you remember one moment in your life when you felt very happy about living on this land (or the natural environment in the village)? What happened then?
- Or – In your memory when was the natural environment in your village at its best? Can you describe that time?
- In case the participants do not have responses to this question – you can ask them: “Have you visited any place where the natural surroundings are very beautiful and life giving? What was special about that place?”

Step 8 : Ask the participants to present their group’s responses to the plenary. Identify the key elements in participant’s appreciation of his/her land or environment and ask the following question:

- What is your personal wish for your land/ environment? If you or your children have to feel the same amount of excitement in this land in the future – what should be done?

Step 9 : Collect these responses and note them down on paper.

Step 10: Summarise the results of the entire exercise

Sample responses:

Example 1: “When I was young, I saw several varieties of birds around my house. They were forest birds and were so colourful. I would spend hours watching them and never knew how time passed!” My children have never seen these birds in their lives. I have decided to plant several trees with berries around my house and the farm – I know in time these birds may start visiting the place again. Perhaps, I should influence the WDA to plant some trees like those in the community woodlot too!”

Example 2: "I had visited a treated watershed area and it was really nice to see how people had managed their lands. There was water everywhere. I wish we too could work like that!"

Stop and Check!

Has each participant discovered some of his or her strengths and high points through storytelling? Have the participants been able to list out their aspirations for their land?



Session: 2

Discovering the Strengths of the WDA

Session Objectives:

At the end of the session the participants will be able to list the major strengths and key achievements of their WDA.

Session Duration: 2 hours

Methods Used: Games, story-telling, guided dialogue and sub-group discussion

Materials Required: Chart paper and markers, crayons and poster colours

CONTENT

Content 2.1: Discovering WDA's Strength

While individual members of WDAs have their own strengths, the WDA as a collective has strengths of its own. Some of these are directly a result of individual members' strengths, but some are due to the unity of the group itself. These strengths contribute to the success of the WDA. The WDA should look at the reasons why it exists and what difference it has already made to the environment of its village.

Process:

Step 1 : Ask few participants to volunteer for Storytelling.

Key Questions:

- Tell us the story of your Watershed Development Association.
- Tell us a story of a time/event/achievement that the WDA is most proud of.

Step 2 : Ask the other participants to bring out the strengths and positive aspects that were visible in the story.



- Step 3 :** Divide participants into groups of five and ask them to discuss the following:
- Talk about a story of a time when you felt very proud of belonging to your WDA? What made it possible?
 - Talk about a story of a time or event when you felt your life had changed for the better because you had joined the WDA.
- Step 4 :** At the end of each story, ask the participants what they think are (i) strengths of the WDA to have made such incidents possible and (ii) the supporting factors in the environment that have made such incidents possible?
- Step 5 :** At the end of the session the participants will be able to list the major strengths and key achievements of their WDA
- Step 6 :** Restate the strengths discovered in the group – segregate the strengths as (i) of the WDA and (ii) the supporting factors in the environment .
- Step 7 :** Conclude by stressing that the WDA has several strengths within itself as well as in each of its members.
- Step 8 :** You can also ask the participants to draw pictures of the best time or the greatest achievement of their WDA on chart paper. Experience shows that pictures speak for themselves and the participants have a strong sense of identity with their pictures.
- Step 9 :** Also ask the participants if there was anything (ideas, feelings, emotions or strengths from individuals) special in the previous session that they would like to select as useful for the development of their association?
- Step 10:** Ask them how they felt about the exercise. Did they discover something new about themselves and their WDA? What connections did they see between the strengths of individual members and that of the WDA?



Stop and Check!

Are the participants able to articulate the strengths of their WDA?



Session: 3

The WDA Dreams of a Bright Future

Session Objective:

At the end of the session the participants have begun to develop a vision for their WDA.

Session Duration: 2 hours

Methods Used: Brainstorming and group discussion

Materials Required: Chart paper and markers, crayons and poster colours

CONTENT



Content 3.1: Explaining 'Vision' to the Participants?

- A vision is what you want to achieve in the long term—just as parents have a long-term goal (vision) of what their child is going to be when she/he is grown up... the WDA members must also have a vision for their WDA's future.
- Having such a vision encourages and inspires members to achieve more than they would normally do.
- A vision is like knowing your destination. A WDA without a vision is like a passenger without a destination. Example: if a person wishes to go to a bank in another town, she will have to know the name of the town and the place where the bank is.
- Every parent has some good wishes for their children and dreams of a bright future for them as soon as they are born. Similarly, if we plant a seed, we wish that it would grow into a tall and strong tree that will bear fruit. If the WDA is a seed that the members planted, they must have some good wishes and intentions for the WDA's future. The wishes are the fruits that the tree will bear.
- Every person has a picture of what she/he wants the WDA to be, because of which she/he continues to be in the WDA. When these dreams are expressed and consolidated, they can become the basis for further positive action.
- As a Watershed Development Association is situated in a village, the members must also have sincere wishes/ plans for the health of the environment in their village.

Process:

Step 1 : Remind the participants that they have just spoken of their strengths as individuals and as a group.

Step 2 : Narrate the 'tree', 'children', 'taking a bus' examples to the participants given in *Content 3.1*

Step 3 : Ask each member to reflect on and respond to the following.

Key Questions:

- What are your sincere wishes for your WDA?
- What are your sincere wishes for your land?
- What are your sincere wishes for the environment in your village?

Step 4 : Consolidate the wishes in the plenary and allow for any additions. These wishes will form the basis for further vision building. Seek feedback on the process.

Key Questions:

- Did you already have these wishes or was this the first time that you thought about them and expressed them?

- What are some of the steps you can take to make these wishes come true?

Step 5 : Ask participants to discuss amongst themselves and to **prioritise these wishes**. They should select only those wishes that have the following qualities:

- They must be achievable i.e. they must be practical.
- They must be challenging i.e. something that they cannot do with the same effort and skills that they currently have. This implies that they must work quite hard and find new ways of working.
- The wishes must be what they really want to achieve from within their heart and not something that they feel others want them to achieve.



Step 6 : Ask the participants to **draw pictures of their visions** on chart paper in subgroups. These pictures must depict what the WDA will work for and how they will be recognised by society – basically “what they want to be”.

Key Question: Draw a picture of your WDA as you want it to be or of what you want to achieve in the future (five to seven years hence).

Ask them to discuss some of the following questions in sub-groups in order to guide them in drawing the picture.

Key Questions:

- In five to seven years what do you want your WDA to be? How will you function as a group to achieve this vision?
- If we visit your WDA in five to seven years, what will you tell us about your WDA's achievements during the previous years?
- In five to seven years, what do you want your WDA's greatest contribution to this country/state/village to be?
- How do you mobilise resources (human, financial and other) for the sustainable functioning of your WDA?
- If you were nominated to be the best watershed management association in the state – what would be the reason for it?

Step 7 : Select a few literate persons in each group to **record responses**.

Step 8 : Ask the participants to **consolidate the outcome** of the discussions and present them to the larger group. Let them present the pictures drawn.

Step 9 : Ask the participants to discuss the various ideas that have come up.

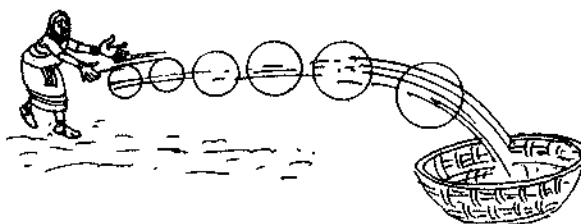
Guiding questions are: Do you feel that these visions of the WDA are also yours? Do you feel that these visions are realistic? Can your WDA achieve them? Are they also challenging? If so, what further skills/resources do you need to achieve the vision of the WDA?

Step 10 : Play the basket and ball game to illustrate that visions should be realistic yet challenging.

Game you can use to explain that Vision should be “achievable”

The Basket and Ball Game: You will need a basket and a few balls. Ask for three volunteers from the participants. Ask the first volunteer to stand about two feet from the basket and try to throw the ball into it. The second person must stand about 7 to 10 feet away and try to throw the ball into the basket. The third person should stand about 20 feet away and try to throw the ball into the basket.

Analysis: The first person is so close to the basket that he/she is not at all excited about throwing the ball in. This is like a very realistic vision but it does not need much effort and therefore does not excite or inspire.



The third person stands so far from the basket that there is little chance of putting the ball into it. Such visions are unrealistic and so challenging that they demotivate and frustrate the persons trying to achieve them.

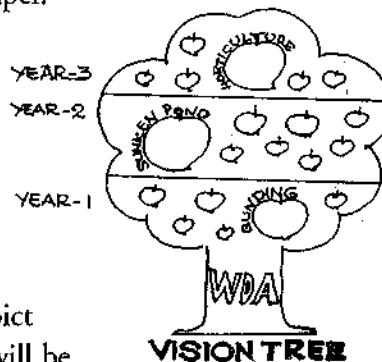
The second person stands reasonably far off from the basket and he/she has to carefully aim at the basket – yet it is not too difficult to get the ball into the basket. Even if the volunteer may not succeed in the first attempt he/she can definitely do so in a few attempts. This is like a realistic and challenging vision. Such visions inspire people to get better in order to achieve them.

Step 11 : Ask them to consolidate the visions of all the sub-groups and prioritise them.

Visions can be important or less important, urgent or long-term. The Vision Tree exercise is helpful for prioritisation.

Vision tree: The vision tree is a simple method to arrange and prioritise the visions of the WDA. It is a modified Venn Diagram or ‘Chapatti’ Diagram. The ‘Chapattis’ represent the fruits of the Vision Tree of the group. Ask the WDA to draw its various visions on different sizes of ‘Chapattis’ of paper.

Important visions must be drawn on large ‘Chapattis’ and less important ones on smaller ‘Chapattis’. Ask the participants to arrange the ‘Chapattis’ on the shape of a tree such that – visions that can be achieved early are kept at the lower part of the tree while the more long term ones are placed on the upper branches. The WDA participants can discuss and paste the ‘fruits’ on their tree at different levels. Horizontal lines can be drawn to depict years. This is a simple but very effective method and will be useful for the following session on action planning.



Step 12 : Ask participants how they feel about the process up to now.

Step 13 : Discuss future steps: When will the group meet to plan out ways to achieve the WDA's vision? Obtain dates for the next workshop. Inform them that they may need to spend two to three days for the action planning exercise.



Stop and Check!

Are participants able to articulate their vision in the form of wishes, pictures and words? Have they prioritised them and arrived at a clear list? Are these visions based on their strengths as discovered in the previous sessions? Are these visions challenging? Have the participants fixed dates for the action planning exercise.



Session: 4

How to Make Dreams Come True – Action Planning

Session Objectives:

At the end of the session the participants will be able to:

- develop strategies for achieving their visions
- clearly outline the activities and responsibilities for achieving their visions
- develop plans for vision review and further planning

Session Duration: 2-3 days

Usually action planning is carried out after a few days of conducting the previous sessions so that the WDA members get an opportunity to revisit the institution's vision and revise it if required. They might even discuss it with other people in the village to seek their cooperation in achieving the vision.

Methods Used: Lecture, sub-group discussion, guided dialogue and brainstorming, action planning methodologies, energisers

Materials Required: Chart paper and markers, action planning format and calculator

CONTENT

Content 4.1: Action Planning – a sample format – the Six Helpers

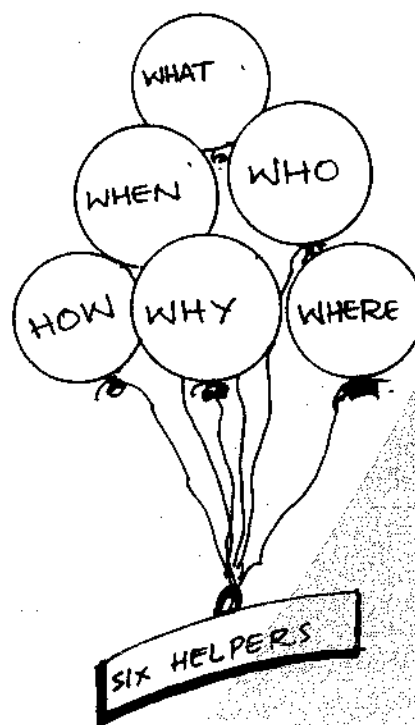


Vision Priority No.				Date Planned: December 15, 2001		
Vision Statement: Our Village is a Green Village						
Purpose for Vision (why?) : A clean and green environment is essential for the health of all plants, people and animals in the village. This will also bring us prosperity.						
What (activities) and how many?	Who Does	When	Where	How	Budget	Other resources/ skills required
Bund Plantation on all earthen bunds in the watershed area	Individual farmers.	During planting season of 2002 and with gap filling every year.	On all bunds in the watershed area.	• Develop local nurseries and also mobilise seedlings government and private nurseries • Dibble seeds • Prevent grazing		
Avenue plantation on 3 kms. of road leading to the village.	Biomass Committee appointed by the WDA.	Over a span of three years.	The three km. stretch along the road to the village with one km. target per year.	Mobilise seedlings from the local nursery and the forest Department to provide protection.		
Plantation and regeneration of upper reaches and a barren hill.	Biomass Committee appointed by the WDA after consulting the local SHG members.	Plans for protection measures for hills to start immediately. Trenches in upper reaches during January – March 2002.	On hill, and on part of the wasteland in the upper reaches.	Protection wall, social fencing through Shramdaan and wages for labour for trenching and wall.		

Explanation of the Action Planning Format:

1. **Vision Priority No.:** How important is this vision statement in the list of vision statements
2. **Vision Statement/Title:** Title or name given to the vision
3. **WHY?** Why does the WDA wants this vision – why is this vision important?
4. **WHAT?** This lists out the various activities that must be completed to achieve the vision

5. **HOW?** How will the activity be conducted – the various steps followed in the correct order.
6. **WHEN?** Gives the timing of the activities – when to start, when to complete, in how much time.
7. **WHERE?** Where to do the activity or where to go to obtain resources – location specific details.
8. **WHO?** Who are to be involved in the activity, who does it, who benefits, who is in charge.
9. **BUDGET:** What resources will the WDA need and how much of it (in cash, kind or labour).
10. Additionally the WDA must agree on how to monitor the implementation of activities.
11. Explore what new skills and knowledge the WDA will need in order to do these activities – not only for now but also in the long term.
12. Review and Revision: The WDA must agree on how often it will review its visions and action plans and how it will take corrective actions or plan additionally.



Facilitator's Note: This exercise may take up to 2-3 days every year and should be encouraged to be a regular event where the progress against the action plan is reviewed and fresh strategies formulated.

Process:³

Step 1 : Brainstorming: Recap on the vision building exercise.

Key Questions: Can you recall the vision building exercise? What were the important aspects of your vision?

Elicit answers.

Step 2 : Brainstorming: "What can you do to achieve this vision?" Allow the participants to brainstorm for ideas to achieve their visions

Step 3 : In the plenary take up one or two of the topics for action planning and demonstrate the planning process by asking appropriate questions to the participants. Use the **Six Helpers** – **WHAT, WHEN, WHERE, WHY** and **HOW**. Use the format shown in *Content 4.1*.

³ This session can be tedious due to its intense nature. Provide several breaks and energisers. Sometimes you may have to disband and meet at another time when you have sufficient information to work further.

Step 4 : When the participants are comfortable with the planning format divide the participants into **sub-groups** and ask them to choose topics for planning. Ensure that there is at least one literate person per group.

Step 5 : Provide the action-planning format to each group and facilitate the discussions.

Step 6 : Allow sub-groups to present their action plans in the plenary and facilitate discussions and modifications.

Step 7 : Ensure that all proceedings are recorded accurately (Steps 4 to 8 can be completed in the plenary itself for a small number of visions).

Include the following aspects in the plans:

- How do we display our visions so that we are constantly reminded of them?
- How do we share our group's vision with our families and the village in general? (The WDA can have an anniversary for this purpose)
- When do we review our vision next? How can we keep improving on our vision all the time?

Step 8 : Once all or most visions are planned for, summarise the discussions and ask participants to indicate their willingness to act on their plans. Fix new dates for further meetings. (Sometimes action planning cannot be done at one go because of lack of relevant information or because it seems too unrealistic. Such issues can be resolved at a later date.)

Stop and Check!

Have participants clearly outlined their short and long term plans to achieve their visions? Does the action plan identify who is responsible for implementation as well as timetables for vision reviews? Have the WDA looked at post-implementation maintenance of watershed resources in the plans?



Facilitator's Note: All subsequent discussions should be conducted with an orientation towards the vision for the group which the WDA has developed in this module.



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