Water Harvesting and Conservation

Volume 2 Part 3: Facilitation Manual

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Black and white illustrations are the work of Hlubi Ndingi.

Introduction to the Manual

This Facilitation Manual is part of a comprehensive learning materials package which consists of 2 main documents:

- Technical Manual
- Facilitation Manual

Each of these is accompanied by a Facilitation and Assessment Guide for use by the course facilitator.

The purpose of the learning materials package is to equip rural development and agricultural facilitators with the technical knowledge and facilitation skills to enable them to work with resource-poor farmers in the field of water harvesting and conservation.

The manuals aim to introduce techniques that substantially increase water availability for increased crop production. The manuals do not, however, cover the many agricultural aspects necessary for successful crop growth. It is essential therefore, that the techniques are introduced either to people who already have substantial agricultural skills, or alongside an agricultural skills development process.

The learning package forms a complementary course which is set at NQF level 5, with each module comprising 15 credits. It is expected that the modules will be presented together, thus forming a 30 credit short course (i.e. Technical and Facilitation modules = 30 credits).

The manuals embrace lower-risk agricultural production methods, with a leaning to the use of locally available resources such as manure, mulch, compost, etc. They are to some extent aligned with Low-External-Input and Sustainable Agricultural approaches (LEISA) but because the emphasis is on the water-harvesting and conservation elements and not the crop-production and agronomic elements, many of the methods will apply to the full range of agricultural settings. While the body of work has a primary focus on resource-poor farmers, some methods (such as saaidamme, mulching, dome-water harvesting, etc.) are equally well-suited to larger, more technically intensive, higher risk agricultural enterprises.

This facilitation manual is based on participatory agricultural development approaches, mainly Participatory Technology Development, the Participatory Extension Approach and Participatory Innovation Development.

UNIT STANDARD ALIGNMENT

This guide is set at NQF level 5 and is aligned with the following South African Qualifications Authority (SAQA) unit standards, totalling 15 credits:

SAQA US ID	UNIT STANDARD TITLE	NQF LEVEL	CREDITS
252476	Develop and implement an extension programme plan. **Unit Standard Specific Outcomes:** • Assess the needs of clients to develop an intervention. • Develop extension solutions to resolve existing and anticipated problems in a programme. • Plan extension interventions for addressing the needs and problems identified. • Implement an extension plan for the selected extension intervention.	Old NQF level 5 New NQF level pending	10

SAQA US ID	UNIT STANDARD TITLE	NQF LEVEL	CREDITS
252474	Implement strategies for behaviour change and innovation. **Unit Standard Specific Outcomes:** • Apply the concept of technology adoption. • Apply the theories and practices of participatory technology innovation and development. • Identify and contextualise the extent to which influencing factors affect the final decision towards change. • Establish the scope for behaviour change/innovation to determine the extent of intervention. • Develop and implement a simple intervention plan to change the behaviour of an individual/group/community.	Old NQF level 5 New NQF level pending	5

Although the unit standards have been designed primarily for training in agricultural extension, they also apply to individuals working in various development contexts such as community or rural development programmes run by Non-Government Organisations (NGOs), Faith-Based Organisations (FBOs) and government departments.

CONTEXTUAL INFORMATION

Some of the information contained in the guide is marked as contextual information. This information, which provides background and is not for assessment purposes, can be identified by the following layout format:

contextual information

The information that is likely to be of interest to students but is not for assessment purposes is presented in grey shading like this.

GLOSSARY

Words in ***bold italics*** are defined in the Glossary at the end of the manual.

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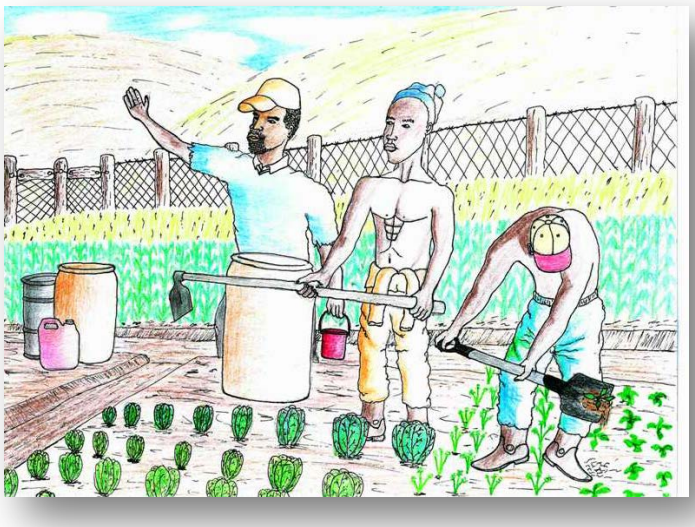

Chapter 1

Bonga Situmba (artist)
"Water harvesting gives you food."

Introduction to WHC Facilitation

Contents

Outcomes

At the end of this chapter you should be able to:

- Explain what a facilitator is and does.
- Explain the idea of "Progress" and why this idea developed into an ideology.
- Discuss some of the advantages and disadvantages of development.
- Present evidence which supports development approaches that focus on sustainability.
- Compare conventional development approaches with participatory development approaches.

1. Course Overview

1.1 Purpose of the Course

The purpose of this course is to provide you with the opportunity to develop a set of facilitation skills that will enable you to facilitate a participatory development process that is centered around water harvesting and conservation with smallholder ***farmers***. You will also be provided with a development framework – called ***Participatory Technology and Innovation Development (PTID)*** – that can guide you as you engage with farmers and other local stakeholders in this process.

1.2 The Practice of Facilitation

The practice of facilitation has increased steadily over the past fifty years, and in many fields – including business, education, community and rural development, research, mediation and government – facilitation skills and knowledge have become both professionalised and institutionalised.[1] The way in which facilitation is practiced, and the specific role/s played by a ***facilitator***, have also evolved over time. There are currently many different ways of defining the term "facilitator". Here we will look at the following two:

A facilitator is "…one who contributes *structure* and *process* to interactions so groups are able to function effectively and make high-quality decisions. A helper and enabler whose goal is to support others as they achieve exceptional performance."[2]

"The facilitator's job is to *support everyone to do their best thinking and practice*. To do this, the facilitator encourages full ***participation***, promotes mutual understanding and cultivates shared responsibility. By supporting everyone to do their best thinking, a facilitator enables group members to search for inclusive solutions and build ***sustainable*** agreements."[3]

Based on these definitions, a facilitator can be seen as a person who contributes, helps, enables, encourages, promotes, cultivates and supports individuals and groups while guiding them through an interactive and participatory learning process.

Figure 1.1 A facilitator promotes mutual understanding.

The role of an effective facilitator is twofold:

1. To constantly *think about and improve upon his/her practice* in terms of how s/he works with others in facilitative ways.

2. To *develop his/her technical knowledge* in the area(s) in which s/he is working as a facilitator (in this case, water harvesting and conservation).

Facilitators who do both of these things are equipped to introduce sound technical knowledge and skills into well-facilitated processes of learning and transformation. They develop an ability to engage constructively at individual, group and community levels; they deepen their understanding of present situations and of challenges and opportunities within these situations; and they are able to identify ways of affecting positive change.

This course introduces you to current thinking about the role of facilitators and the facilitation process, specifically within the context of community development. The course will also equip you with a range of knowledge and skills which will enable you to develop into a successful facilitator of individual and group processes of transformation. Each chapter of this manual includes individual and group activities. These are designed to support and deepen your learning by giving you the opportunity to experience and practice a range of facilitation techniques that you are likely to use in the field. Your lecturer will guide and support you through each learning activity.

2. Progress and Development

contextual information

The theories which underpin development work have become well-established over time. Concepts such as "community development", "rural development," and "agricultural development" are now loaded with ***ideologies*** and ***values***, many of which have become accepted as unquestionable "truths". For many years, these values and ideologies have informed and determined the ways in which development work is carried out.

In recent years, however, people have started to critically examine the development context and its associated concepts, and the practice of development work is evolving as new theories, ideas and values come into play. In this chapter we will look at some of the ideologies which initially underpinned the development context, and we will explore recent developments in the field which are opening up new and innovative ways of working together with groups of people towards positive change.

2.1 The Idea of Progress

activity 1

What is Progress?

Complete the following in small groups. Write down the main points of your discussion and present them to the rest of the class.

1. What does the word "progress" mean? Come up with a definition.
2. What ***connotations*** does the word "progress" have? Why do you think it has these connotations?
3. Do you think that humanity has "progressed" throughout history? Explain your answer(s) in detail, giving examples.

Time: 30 minutes

Between the 17th and 19th centuries, many new developments were taking place in Europe. Colonies were expanding, international trade was being developed and financial markets were being created. It was the time of the scientific revolution, when new ideas in the ***sciences*** led to a rejection of doctrines which had lasted through the Middle Ages.[4] It was also the period when major changes in agriculture, manufacturing, mining and transport took place, leading to the Industrial Revolution and rapid urbanisation.[5]

It was during this time that the philosophical ***idea of "Progress"*** began to form into a theory which helped people interpret and understand life, humanity, and their social reality.[6] The idea of "Progress" is the belief that "...all societies are moving naturally and consistently "up", on a route from poverty, barbarism, despotism and ignorance to riches, civilisation, democracy and rationalism, expressed at its highest in Science".[7] Progress (or *development*, as it came to be called) was thus considered a natural, evolutionary process through which different societies moved at their own pace.

Figure 1.2 The idea of "Progress" is the belief that all societies are moving naturally on a route "up" from "barbarism and poverty" to "civilisation and riches".

This idea of "Progress" and the values, ethics and emotions associated with it penetrated all areas of society. It developed into an ***ideology*** which has since then dominated humankind at a global level. The words used to describe this ideology have changed over time (e.g. "modernisation," "development" and "growth") but the ideology itself has for a long time been extremely resilient to challenge or change. It has entered academic disciplines such as sociology, anthropology and economics in the forms of "modernisation theories", "strategies of development" and "programmes of growth".[8] It has also formed the basis and justification for traditional third world development policy, where development is considered "a process of teaching impoverished groups the wisdom of the rich", and that "the successful must guide the less fortunate along the path to success that has been previously blazed."[9]

activity 2

More on Progress...

Complete the following in small groups. Write down the main points of your discussion and present them to the rest of the class.

1. Discuss how the idea of "Progress" compares with your own idea/s about progress.

2. Identify some of the values that underlie the idea of "Progress" and compare these with your own values. In what ways are they similar or different?

3. List five major developments that have taken place in the world that you see as "progress".

4. What specific impact(s) has each of these developments had? Identify and list a few for each development.

5. Name the people (e.g. groups, societies, cultures, etc.) whom have been most affected by each of these developments, and discuss the ways in which each group has been affected.

Time: 30 minutes

2.2 Deconstructing Progress and Development

The pursuit of Progress or "development" has led to rapid advances in the field of science, and to the increasingly accelerated development of new technologies. Many of these technologies have led to significant improvements in the world, benefiting those who have access to them. Medical researchers, for example, have developed treatments and cures for diseases, computers and machines are increasingly sophisticated, and transport and communications

systems are becoming more and more advanced. In the field of agriculture specifically, scientists working in research stations continue to develop new farming technologies which are then passed on to farmers,[10] while agricultural development policies have successfully emphasized the use of external inputs – such as inorganic fertilizers, pesticides, animal feed-stuffs, tractors and other machinery – to increase food production.[11]

activity 3

The Meatrix

Watch **The Meatrix** (www.meatrix.com) and discuss the following:

1. What "developments" have impacted on farming and agriculture over the last 50-100 years?

2. Discuss how these developments have impacted specifically on:
   - 2.1 farming and farm systems
   - 2.2 farmers
   - 2.3 plants
   - 2.4 animals
   - 2.5 consumers
   - 2.6 people (in general)

3. Think about the word "progress" in relation to the "developments" presented in The Meatrix.
   - 3.1 Does the word still have the same meaning for you? Why/why not?
   - 3.2 Does the word have any new connotations? What are they?

4. What values lie behind the "developments" that are presented in The Meatrix? How do these values compare with your own values?

Capture the main points of your discussion in writing.

Time: 40 minutes

It is clear that many new technologies, while beneficial in some ways, also have a negative impact on the environment and on different forms of life (e.g. animals and humans). In fact, much of the technological development that has taken place in the name of "Progress" has had severe consequences which have contributed to the ecological crisis that the world now faces. Climate change, global warming, deforestation, pollution, soil erosion and water shortages are all ***indicators*** of this crisis.

In the field of agriculture, relatively small farm systems such as those shown in The Meatrix have been replaced with "modern" farm systems, methods and ***technology***. Many of these changes have led to increased productivity and monetary profit for some farmers (mainly industrial farmers who are already resource-rich). However, many new technologies are *not sustainable* and have caused serious environmental problems such as ground and surface water contamination, decreased biodiversity, increased soil erosion, the depletion of nutrients from the soil, water pollution, and extensive damage to river ***systems***. This lack of sustainability is one of the main consequences of placing more value on present-day profit and productivity than on the conservation of natural resources.

Figure 1.3 Many unsustainable technologies have caused serious environmental problems.

2.3 The Shift Towards Sustainable Development

The detrimental impact that unsustainable development is having on the planet has led many development agents, scientists, environmental politicians and ecological activists to express the need for conventional development approaches to *shift their focus towards sustainability*[12] or ***sustainable development***.

You have already learned that sustainability means "having the capacity to endure," and that the goal of sustainable farming is to integrate different farm elements into a production system that is appropriate for the environment, the people, and the economic conditions of the farm. Another way of defining sustainability is that it is "...a quality that emerges when people individually or collectively apply their intelligence to maintain the long-term productivity of the natural resources on which they depend".[13]

In recent years there has been a lot of evidence to show that sustainable technologies and practices (i.e. those which are ***regenerative*** and resource-conserving) have environmental and economic benefits for farmers, communities and nations.[14] Importantly, it is not only small-scale, resource-poor farmers who can implement sustainable farm systems successfully; research conducted in highly industrialised countries has shown that *high-input farmers who use regenerative technologies are able to maintain their yields and their profits while substantially decreasing their use of inputs*.[15]

This evidence, along with the expressed need for developmental approaches to shift their focus, has led to the emergence of a new body of approaches to development. These approaches, while diverse, have two important things in common: they are all *participatory*, and they all enshrine *new ways of learning about the world* – which is one of the central principles of sustainable agriculture.[16]

3. New Approaches to Agricultural Development

3.1 South Africa's Move to Participatory Approaches

In South Africa the traditional development model, in which new technology is taken from research stations and taught to farmers, who then implement exactly what they are told, is now considered inadequate. Instead, active participation by farmers in research and information-sharing has become accepted as an essential part of agricultural extension. This is in keeping with international trends of agricultural development.[17]

The importance of *farmer-centered research and information-sharing* is noted by the South African Government in the Agricultural Education and Training Strategy.[18] The National Strategy also highlights food-security and water harvesting as one of three urgent challenges facing South African agriculture that a renewed agricultural extension and training program must address.

Before we examine the new set of approaches which have emerged, let's look at the conventional development approach, commonly referred to as the ***Transfer of Technology (TOT)*** *model*.

3.2 The Conventional Development Approach: Transfer of Technology

Transfer of technology (TOT) can be described as a top-down, one-way development approach in which scientists identify problems and then generate technologies to address them. The new technologies are then passed on to farmers in the form of knowledge transfer.[19] This involves "someone who knows" (an extension officer) teaching the technology to "someone who doesn't know" (a farmer). TOT is thus a teaching-based approach which is deeply embedded in development theory. TOT has failed to meet the needs of smallholder farmers for various reasons, but mainly because the approach largely ignores the knowledge and experience of farmers and does not take local needs, conditions or resources into account.

3.3 New Methods for Sustainable Agriculture: Participatory Approaches

In reaction to the TOT model and learning from their own experiences in the field, several circles of scientists and development practitioners have come to recognize that:

- Farmers have a wealth of knowledge and experience which they draw on constantly in their farming practices.
- Farmers have strong analytical capabilities.
- Farmers are experimenters by nature, innovatively adapting technologies and practices to suit local conditions and available resources.

- Farmers are always involved in active learning.
- Farmers have a vested interest in environmental protection because their livelihoods depend on the careful use of their natural resources.[20]
- Technologies developed in isolated environments such as research stations are often inappropriate for smallholder farmers, or not suited to local conditions.
- The values, goals and attitudes of external agents such as scientists, development practitioners and extension officers are not the same as those of local people (e.g. smallholder farmers).
- Problems can be solved if external agents and farmers interact with each other and share their knowledge and experience.
- Solutions can take full advantage of external technologies *as well as* local resources.

These have led to some new beliefs around development. The first is that the driving force of development needs to be ***local/indigenous knowledge*** *and experience*, both of which can be accessed through *participatory processes* (i.e. creative and inclusive interactions in communities).

The second is that *the answer to successful development is found in the community itself – its needs, its capacities, and ultimately its own control over both its resources and its destiny*.[21]

PARTICIPATION	involving people so that they make informed decisions and directly influence change in their lives
TECHNOLOGY	tools and instruments and the skills by which we produce and use them
INNOVATION	the process by which people develop new and better ways of doing things, using their own resources and initiative
SUSTAINABLE DEVELOPMENT	long-term productivity and improvement in quality of life and the natural resource base
INDIGENOUS KNOWLEDGE	knowledge that is unique to a society or culture and has been built up and proven over time

A variety of new, participatory methods and approaches have been developed based on these understandings and beliefs. These include: Participatory Rural Appraisal (PRA), Participatory Learning and Action (PLA), Participatory Technology Development (PTD), Farmer Participatory Research (FPR), Participatory Action Research (PAR), Participatory Extension Approach (PEA), and the Sustainable Livelihoods Approach (SLA).[22] There is a lot of overlap between these approaches with regard to the tools which are used and the processes which are followed.

Of these approaches, Participatory Technology Development (PTD), Participatory Innovation Development (PID) and Participatory Extension Approach (PEA) are the most relevant to this course and the working situation you are likely to find yourself in, and have become widely adopted as the best way forward in developing and sharing agricultural technologies and ***innovations*** with resource-poor farmers.[23] In this course you will learn to use an approach called ***Participatory Technology and Innovation Development*** (PTID), which is rooted in PTD, PID and PEA (see Chapter 2 for more on PTID).

3.4 Comparison of TOT and Participatory Agricultural Development Approaches

A comparison of the TOT approach and participatory agricultural development approaches is presented in Table 1.1 below.

Table 1.1 Characteristics of TOT and Participatory Agricultural Development Approaches.[24]

TRANSFER OF TECHNOLOGY (TOT)	PARTICIPATORY AGRICULTURAL DEVELOPMENT APPROACHES
Technologies are developed exclusively by scientists in universities, research stations and laboratories.	Technologies are developed by scientists and farmers together.
A top-down approach with one-way communication, where the researcher is the communicator and the farmer is the listener.	A balanced approach with two-way communication, dialogue, negotiation and mutual learning between researcher and farmer.
Farmers are recipients of technical information.	Farmers are the main actors and experimenters.
Farmers are seen as "backward", "conservative," and "lacking the ability to innovate".	Farmers are seen as a powerful resource for change and a source of new ideas.
Innovations come from the researchers and the research stations.	Local innovations are actively encouraged, looked for and documented.
The emphasis is on instructions, messages and fixed technology packages.	The emphasis is on principles, methods, options and choices.
Decisions are made by researchers.	Decisions are made by farmers, researchers and/or facilitators together.
Indigenous knowledge is considered primitive, unproductive, backward, irrelevant.	Indigenous knowledge is highly valued, and is incorporated with scientific knowledge.
Extensionists are teachers and trainers.	Extensionists are facilitators.

Dependency is created on outside inputs and expertise.	Local capacities are enhanced and self-reliance is strengthened.
An ignorance of local conditions often leads to the inefficient allocation of resources.	An understanding of local conditions (its limitations and potential) leads to the more efficient allocation of resources.
Most suited for high external input agriculture (HEIA) where conditions are uniform, controlled and economically favourable.	Most suited for low external input agriculture (LEIA) and for resource-poor farmers, who work in complex, diverse and risk-prone areas.

This major shift in development approaches has led to a fundamental change in the role of development agents such as extension officers, who are no longer teachers of new technologies but *facilitators involved in a process of change.*

In the next chapter we will look at PTID and its process in more detail, after which we will explore the knowledge and skills that you need to acquire in order to become a successful PTID facilitator.

4. Test Yourself

1. Define the term "facilitator". 2
2. Name two things that a facilitator must do to be effective, and explain why these things will make him/her effective. 6
3. Explain the idea of "Progress". 4
4. List some of the advantages and disadvantages of the pursuit of progress. 8
5. Describe the goal of sustainable farming. 4
6. Name two things that have led to the emergence of participatory approaches to development. 4
7. Name and describe the conventional approach to development. 6
8. List six things that development agents have come to recognise that have led to new beliefs around development. 6
9. Compare 5 characteristics of TOT with those of participatory agricultural development approaches. 10

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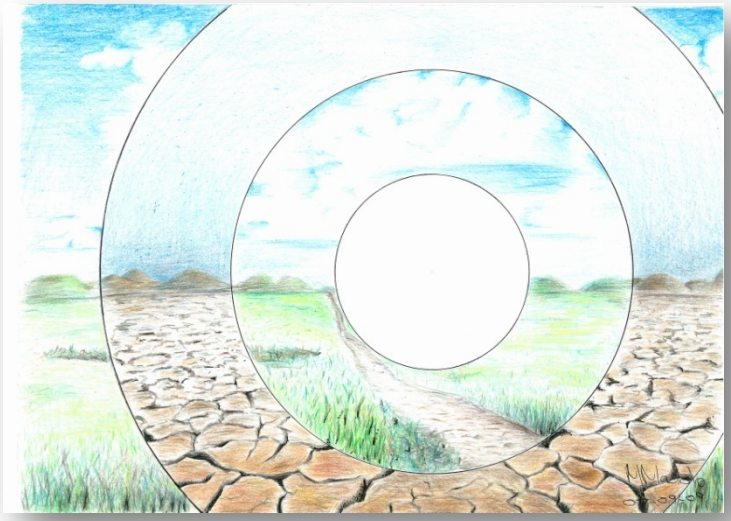

Mncedi Madlodlo (artist)
"Water transforms the soil."

Chapter 2

PTID – A Framework for Facilitation & Action

Contents

Outcomes

At the end of this chapter you should be able to:

- Define the concept Participatory Technology and Innovation Development (PTID)
- Outline the six stages of the PTID process.
- Describe the role of the facilitator during each stage of the PTID process.
- Outline the action learning cycle.
- Explain the concepts of *participation* and *agency*.
- Define the term *local* or *indigenous knowledge* and discuss the importance of local knowledge to the PTID process.
- Discuss technology and innovation in relation to the PTID process.

1. Participatory Technology and Innovation Development

Participatory Technology and Innovation Development (PTID) provides a framework, or set of practical steps, that you can follow as you plan and work with farmers. The approach is based on a number of development concepts, including *participation*, ***innovation*** and *experimentation*. In this chapter we will examine the PTID approach and some of its related concepts, and we will look at each of the steps that the approach follows.

While PTID is a very useful method for engaging with communities it will have little value if the facilitation is weak or careless, because strong facilitation skills remain the most important part of any participatory method. In fact, some authors suggest that facilitators often spend too much time implementing participatory methods which turn out to be useless because they, the facilitators, have not really listened to local people or inquired skilfully about their interests, knowledge and needs. As a result, the initiatives do not respond to what the farmers actually want or need, and often do more harm than good.[1] This means that *strong facilitation skills must be applied to the PTID process if the outcomes are to be useful to farmers.*

1.1 Background to PTID

contextual information

There are many development approaches that utilize active farmer participation, and although these approaches have different names – which can become confusing – they are all built on the principles of *joint experimentation with farmers, observation*, *innovation* and *information-sharing*, all of which take place in an *ongoing cycle of learning*.

Some participatory approaches are based on collaboration between researchers and farmers, who together design research trials and observe the results. These approaches include, amongst others, **Participatory Technology Development (PTD),** Participatory Action Research (PAR), and Farmer Participatory Research (FPR). The approaches originally focused on generating locally relevant technical solutions for farmers, and have evolved to include information-sharing, social networking and local institution-building so that maximum knowledge transfer can take place.

Other participatory approaches aim to identify existing local farming innovations and introduce new techniques for experimentation. They also emphasise and facilitate knowledge-sharing between farmers through the use of social networks, farmer visits and publications. As such, they integrate aspects of PTD with social development approaches such as Participatory Learning and Action (PLA). Such approaches include **Participatory Innovation Development (PID)** and **Participatory Extension Approach (PEA)**, which are almost identical to each other.[2]

There is no single text that completely defines any one approach, and development agencies and individuals clearly modify approaches to suit their specific needs. However, despite the small differences between approaches and between different authors writing about any one approach, the approaches all share the following:

- They are built on the same facilitation and development principles.
- They prioritise local (indigenous) knowledge and local innovations.
- They follow an action learning cycle.
- They use a range of participatory tools, such as resource mapping, ranking and semi-structured interviews.
- They aim to identify and share information about local modifications to technology.
- They encourage and record local innovations.

Some of the prominent authors on PTD, which historically has a research emphasis, show that the method can be effectively implemented *without a researcher.*[3] When PTD is used with a development facilitator instead of a researcher, it is clear that the methods of PTD, PID[4] and PEA[5] are for all practical purposes the same.

In this guide we will use an approach that can be described *equally well* by the following names, given our application to WHC in a South African smallholder farming context:

- Participatory Technology Development (without a researcher)
- Participatory Innovation Development
- Participatory Extension Approach

We will call this approach **Participatory Technology and Innovation Development (PTID)**. PTID reflects the essence of all of the above methods, particularly in relation to participatory technology development, farmer innovations, and participatory extension.

1.2 Action Learning and PTID

The PTID process follows an ***action learning*** *cycle*, which can be described as *learning by adaptation*. This takes place as farmers observe the results of their experiments and innovations, and use these observations to improve on what they are doing.

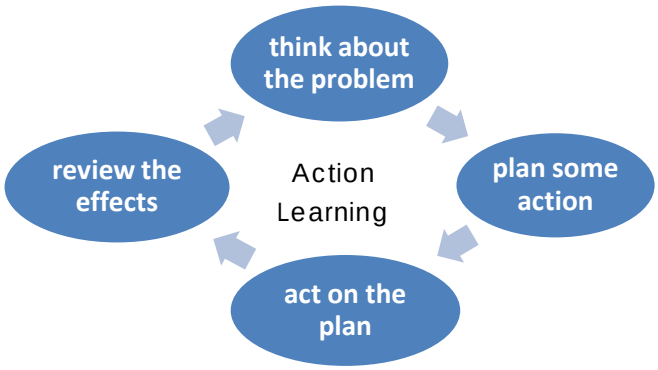

Figure 2.1 Action or experiential learning cycle.[6]

The action learning cycle is the foundation of adult learning and is used in most modern participatory methods. What makes this a cycle rather than a set of steps is that at the review stage, the information and the insights gained are used to inform a new round of thinking, planning and action. "Thinking about the problem" is thus critical to the development of knowledge because it is the link between past action and more useful future action.

2. Guiding Your Work Using PTID

Although real life is a lot more complex and responsive than any theoretical approach, PTID can be used to guide us in our work if we take it for what it is, which is a *planning tool*.

The following are key features of the approach:

- PTID aims to increase the ability of farmers to develop sustainable farming systems that conserve and improve local resources.
- PTID aims to increase the resilience of farmers to changes in their circumstances.
- PTID focuses on farmer-led experimentation. During this experimentation, the knowledge and experience of farmers is combined with technical input from external agents in order to arrive at interventions which are relevant and useful to the local situation.

As a facilitator your primary role is to work with interested farmers at each stage of the PTID process. If people are farming as a group, you will work with them as a group during all stages of the process. However, in situations where a few farmers are located in the same village or vicinity, you are likely to work with farmer groups as well as with individual farmers.

2.1 The PTID Process

While PTID follows the action learning cycle, it also includes two additional steps which take place at the very beginning of the process. These steps take place only once, and are thus not part of an *ongoing learning cycle*.

The remaining four steps – which form the learning cycle – are repeated over and over again as farmers learn from their current experiences, and use this knowledge to improve on their future practices.

It is important to understand, however, that although the steps of PTID are presented diagrammatically as independent stages of the process (see Figure 2.2), this is a simplistic representation of the PTID process. In reality, the PTID process is usually much more complex than this, with a lot of overlap taking place across and between stages.

Stages 1 and 2 happen only once in order to to initiate the process

Stages 3 to 6 are the ongoing action and learning cycle of farmer-led experimentation.

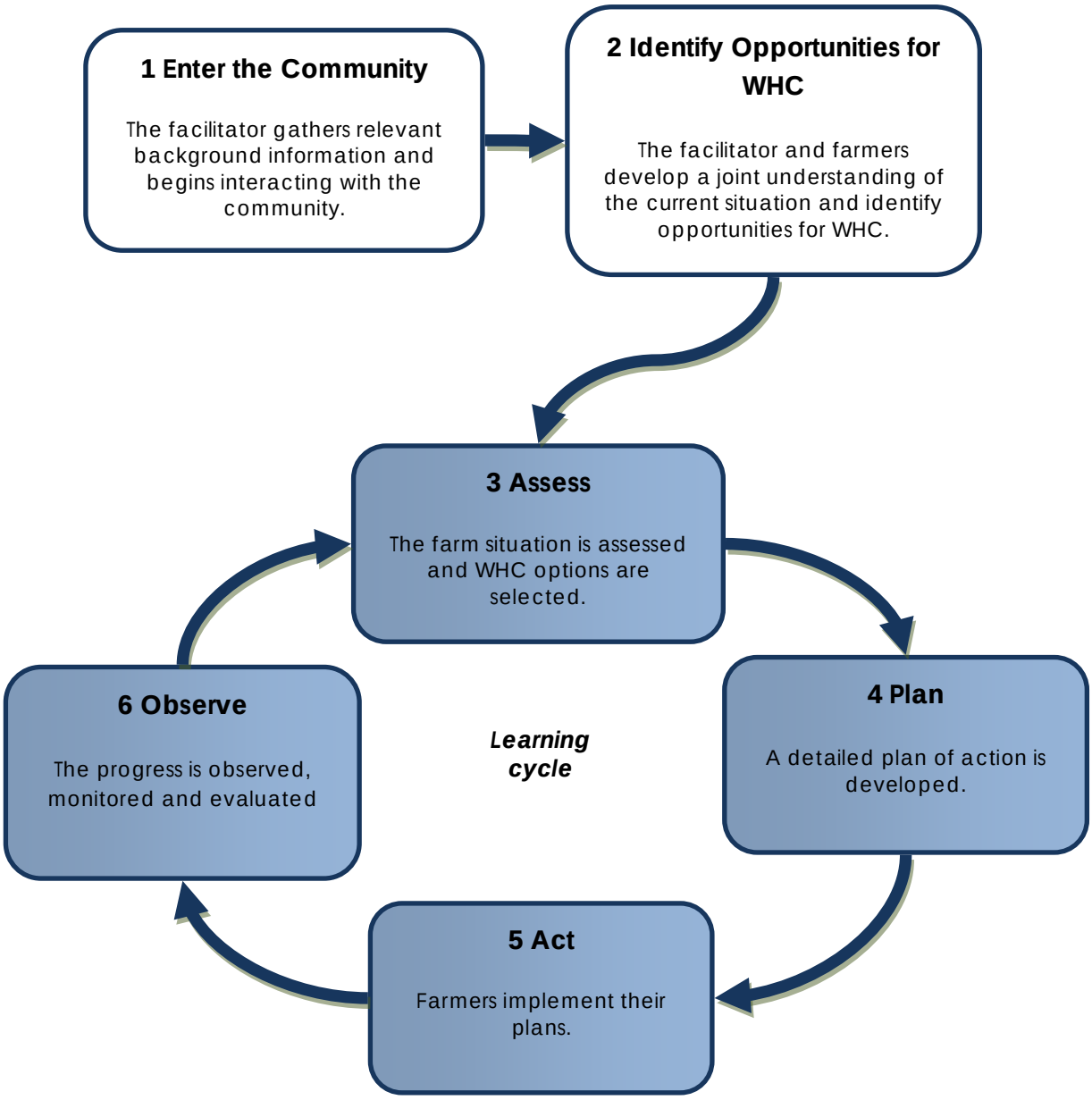

Figure 2.2 The PTID process.

Table 2.1 Detailed PTID process in relation to a WHC programme or intervention.

Stage	Aim	Facilitator's Steps and Action
1. ENTER THE COMMUNITY	• To develop an initial understanding of the socio-cultural and agricultural situation of the community. • To keep a ***transparent*** agenda. • To establish a core network of individuals and organisations that could play a role.	1. Meet the Tribal Authority and Ward Councillor. 2. Visit local Government Departments. 3. Be alert to competing interests and/or local politics. 4. Gather reports and internet data – rainfall, etc. 5. Meet with interested local farmers and/or groups. 6. Share information on WHC, and your aims.
2. IDENTIFY PROBLEMS AND OPPORTUNITIES	• To develop a joint understanding with the farmers of the current situation with regard to water and land resources. • To identify the opportunities for WHC in relation to current agricultural activities and available resources.	1. Consider group and individual farming possibilities. 2. Conduct a natural resource assessment. 3. Focus on land and water. 4. Use resource mapping and transect walks. 5. Identify where people could use WHC methods. 6. Consider practical limitations and challenges.
3. ASSESS THE FARM OR GARDEN	• To explore with farmers the specific opportunities and constraints which each field or garden presents. • To identify the WHC methods that are suited to the general site conditions (rainfall, slope and soils) and the production purpose. • To facilitate information-transfer around WHC using handouts, posters, videos and, if possible, visits to other farmers practicing WHC.	1. Discuss in groups to share ideas and save time at this stage. 2. Provide information on suitable WHC methods. 3. Learn from locals about what they do and why. 4. Discuss, share ideas and look for WHC things to try out. 5. Arrange a visit to another WHC farmer if possible. 6. Discuss monitoring and evaluation of planned activities.

Stage	Aims	Facilitator's Steps and Action
4. PLAN	• To help farmers develop detailed action plans of the selected WHC interventions they will use. • To assist the farmers to either draw the detailed plan on paper, or mark it out with pegs and string in the field.	1. Facilitate identification of high runoff zones. 2. Look at roofs and tank storage and overflow. 3. Consider applicable methods one by one. 4. Ensure farmers make their own decisions. 5. Mark out contour lines, swales, trench beds, etc. 6. Record the action plan on paper for reference purposes.
5. ACT	• To support farmers as they implement their plans. • To provide guidance if details or layout need to be changed as the plan is implemented.	1. Mark out contours, beds or other earthworks. 2. Record any changes to the action plan.
6. OBSERVE	• To facilitate a participatory process where farmers develop a monitoring and evaluation plan. • To support the process of information-collection and analysis. • To help farmers develop a better understanding of their farming outcomes, leading to new ways of doing things.	1. Help farmers define their expectations and fears. 2. Facilitate a process to decide how they will measure their progress (i.e. develop indicators). 3. Help farmers record information thoroughly. 4. Clarify who will monitor and at what intervals. 5. Evaluate the information with farmers. 6. Help farmers to decide what they want to do differently in the next round of action.

3. What the Terminology Means

The concepts of *participation*, *local knowledge*, *innovation* and *experimentation with technology* are all central to PTID, so it is important that you understand exactly what each term means in relation to the PTID approach.

3.1 Participation

Participation in its simplest form means "to join in" or to "involve oneself". Understanding participation means being aware of who really makes the decisions, and whether people feel that they can take part actively, or must just attend passively.

Participation is often used by outsiders simply as a 'rubber stamp' to get local approval of some or other plan. The term that is often used is "to get local buy-in". This means that the plan is already in place, and the development agents really just want people to be informed of the plan and agree to it. This is a low level of participation, where people are informed about what is happening, but cannot easily change the way things will happen. Participants are often called "beneficiaries" in such situations. The word itself indicates dependency, in that someone gives the beneficiary something and they must either be grateful and take whatever it is, or get nothing at all.

Meaningful participatory development work cannot be achieved with approaches where people have little or no power to shape the process and the outcomes. Thus, participation must always be considered in relation to who is going to make decisions and how those decisions will be taken. This is sometimes called ***agency***, which means *the ability that people have to influence or make changes in their lives.*

Meaningful participation takes place when:

1. Participants are given full information in a way that is transparent and understandable to them.
2. Participants have time to consider and discuss the implications of new information.
3. Participants value their own knowledge and understand that others value it as well.
4. Participants contribute actively by advising and planning in a spirit of partnership.
5. Participants feel that they have the power to negotiate with each other and with outsiders (people or organizations) around decision-making.

Participation and agency

The word "agency" can mean an organization that is wanting to bring about change (e.g. "the development agency"), but it is also used in an action sense, to describe peoples' *ability to make changes.* A lot of thinking and research has gone into trying to understand agency or the degree to which we as individuals are able to shape and change the society in which we live.

The theories of structure and agency, for example, look at how we are each born into a world with existing structures.[7] These structures include ways of thinking, cultures, assumptions, laws, customs and beliefs. Often, because we are born into these structures they seem natural, and we may not be aware of how they limit or influence our own decisions and what we accept as normal or reasonable.

Our scope for agency (i.e. for effecting change) may be limited if we don't look critically at the way our community or society functions and how decisions are made. People who do question established structures are often punished or rejected because their thoughts or actions are seen as a threat. Yet the world around us *does* change, through the combined efforts of those individuals who act in one way or another. These actions lead to broader social change which is often barely noticeable at first, but grows to become clearly visible and then considered "normal".

The acceptance of agricultural innovations or new technologies often follows a similar path, where people may initially be cautious about change or actively resist it. An awareness of social structures, and who influences or makes decisions, is useful in an extension setting because it helps us understand the extent to which the people with whom we work are able to bring about change in their own lives and effect change within the community, given the social and cultural norms that are in place. In addition, we also need to be aware of our own ability to effect change where we are working.

Why is participation important?

Development efforts in the last thirty years provide a number of lessons on the importance of meaningful participation. Local people have valuable information that is needed to develop solutions that meet *their needs as defined by them*.

Figure 2.3 Farmers actively participate in planning and decision-making.

When people actively participate in making plans and decisions, the solutions are more likely to be socially acceptable and to lead to useful change. Issues that are often not easily seen or understood by outsiders, such as local rules around communal land-tenure, or local social tensions, cannot even be identified without real participation, and these issues can obstruct relevant planning and useful change.

When people participate in a real way there is more chance that they will arrive at solutions that work for them. They will know that what is being done has been decided by them and belongs to them. This will give them more confidence to raise their voices and assert themselves when future challenges are encountered.

activity 4

Assess Your Participation

Complete this activity in small groups.

List a few different group situations in which you find yourselves (such as church groups, committees and social groups) and discuss the following:

1 How much agency do the members of each group have (i.e. how meaningful is their participation)?

2 Is this the best type of participation for the members of each group? Why or why not?

3 What group/s do you most enjoy being part of, and why? What is your level of participation in this group? Does your level of participation relate to your enjoyment of the group? Why or why not?

Time: 20 minutes

3.2 Technology

The following definition of technology was written in 1937 but is still used today because it is so sensible and applicable:

"Technology includes all tools, machines, utensils, weapons, instruments, housing, clothing, communication and transport devices, AND the skills by which we produce and use them."[8]

Figure 2.4 Some examples of digital technology.

Technology is often confused with science, but they are two different things. Science is the study and understanding of the natural world and the natural universe,[9] whereas technology is the innovation, change, or modification of the natural environment to satisfy human needs or desires.[10]

Technology generally sets out to achieve a solution to a specific problem, and it often uses the knowledge gained from scientific study. A lot of valuable technology is also developed using indigenous knowledge, which often has accumulated over generations through practice and observation. Some examples of indigenous technology are the domestication of certain animal species, herbal medicines, farming and fishing techniques, building methods, and ways of storing, processing and preserving food.

The participatory methods that are used in this guide are based on the view that both scientific and indigenous knowledge are key resources for the development of new technologies that aim to solve current problems.

3.3 Local or Indigenous Knowledge

These terms are usually defined in the same way, and in this guide are used interchangeably. Local or indigenous knowledge is knowledge that is *unique to a given culture or society,* has *developed from experimentation,* has been *proven over time*, and is *directly applicable to local needs.* It is the *basis for decision-making* in numerous social realms, including agriculture, health care, food preparation, education, natural resource management, and a host of other activities in rural communities.[11]

Many people believe that indigenous knowledge is old-fashioned, and that practices based on such knowledge should be replaced with newer practices based on scientific or more "contemporary" knowledge. This view has no support from leading development thinkers across the world, all of whom emphasise the value and importance of indigenous knowledge.

One of the strengths of indigenous knowledge is the cumulative body of knowledge, practices and traditions that is built up over extended generations.[12] Indigenous information systems are *dynamic* and are continually influenced by *internal creativity and experimentation* as well as by *contact with external systems.*[13] This suggests that because local knowledge is adaptable and responsive to real forces of change through active experimentation, it is often *advanced and well in keeping with the times.*

Figure 2.5 A participant shares her local knowledge.

Global development agencies argue that indigenous knowledge is a strong platform on which to develop new practices, and that it can be particularly effective in helping development agents work more effectively with resource-poor farmers. And while local or indigenous knowledge is a key source of locally proven and accepted information, it often remains unused because it is undervalued, both by farmers and by facilitators or other outsiders. Good facilitators recognise the value indigenous knowledge and encourage farmers to share their knowledge and observations with others so that sustainable farming practices can be improved.

activity 5

Local Knowledge

1. Imagine that a relative from another city is moving to your area and will be staying just down the road from you. What local knowledge can you share with her to help her "find her feet"? Write a list of all the information you can give her.

   (Hint: think about the kind of things that you would need to know if you moved to a completely new area in South Africa.)

2. Now, imagine that a friend from another country is moving to your area and will be staying just down the road from you. What local knowledge can you share with him to help him "find his feet"? Write a list of all the information you can give him.

   (Hint: think about the kind of things that you would need to know if you moved to a completely new country.)

3. Compare your two lists. Which one is longer, and why do you think this is so?

4. Now, think about the different ways in which you acquired your local knowledge, and list them.

5. Join up with a partner and take turns to share your lists and answers with each other.

Time: 40 minutes

3.4 Innovation and Innovations

In the context of PTID, the word *innovation* refers to the *process* by which people develop new and better ways of doing things, using their own resources and initiative. Innovation often occurs in the face of new challenges or opportunities.

The *outcomes* of the innovation process are *innovations*, which are developed, understood and owned by local people. Innovations can be developed by individuals, groups or even communities. Examples of innovations resulting from farmer-led experimentation include new farming methods, new ways of organising farming activities, and new ways of organising and sharing information.[14]

4. Test Yourself

1.	Describe the three main features of the PTID approach and name the key principles on which the approach is based.	10
2.	Explain the action learning cycle.	4
3.	Draw a diagram which shows the six stages of the PTID process.	12
4.	Explain in detail what is meant by *meaningful* participation.	5
5.	Define the term "agency".	2
6.	Explain why meaningful participation is important to a PTID process.	5
7.	Define the term "technology" and explain the difference between technology and science.	6
8.	Explain what is meant by the term "local" or "indigenous knowledge" and discuss the importance of this knowledge to a PTID process.	4

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Chapter 3

Masonwabe Dangazelle (artist)
"Store it – use it."

Facilitation Skills

Contents

Outcomes

At the end of this chapter you should be able to:

- Display cultural knowledge and awareness.
- Facilitate in a culturally diverse context.
- Use self-knowledge to improve your interactions with other people.
- Discuss the importance of having a positive attitude towards yourself and your work.
- Demonstrate good communication skills.
- Present information to groups and individuals effectively.
- Demonstrate tasks and procedures to groups and individuals effectively.
- Successfully facilitate groups and group processes.
- Work effectively with an interpreter.
- Manage your time efficiently.

1. Introduction

Strong facilitation skills are critical to the success of any participatory development process. Facilitation skills are best learned through *observation* (e.g. watching a good facilitator at work), *experience* (e.g. practicing being a facilitator) and *reflection* (i.e. reflecting on what you have observed and experienced). As you work through this chapter you will be given the chance to develop new skills and to build on your exisiting capabilities through your active participation in a number of activities. In some of these activities you will have to reflect on yourself, particularly in relation to your values and attitudes and how these impact on your interpersonal interactions and relationships with other people, particularly people from different cultures. In other activities you will have to practice some of the skills that you need to develop in order to be an effective facilitator.

2. Facilitating in a Culturally Diverse Context

South Africa's population of approximately 49 million people represents five major ethnic groups, eleven official languages and four major religions, as well as smaller minority groups, several non-official languages and numerous other religious groups.[1] These many differences within our population create an interesting but complex context of *cultural diversity*, and it is this context in which you as a WHC facilitator will be working.

2.1 Cultural Diversity in South Africa

The word "culture" refers to ways of thinking and acting that are shared by a group of people. In other words, culture refers to *what* people do, *how* they do it, and *why* they do it. Culture is learned from birth and passed on from generation to generation. We acquire our culture from our parents or caregivers, as well as the environment in which we grow up.

Culture has many different aspects or dimensions. Some aspects are *observable*, which means that we can see or notice them. Dress, physical contact, body language, customs and eating preferences are all examples of observable aspects of culture.

Figure 3.1 A rural Zulu woman identifiable by her characteristic shoulder scarf.

Other aspects of culture are *internalised*, which means that they are intrinsic qualities which we hold inside ourselves. Our attitudes, values, beliefs and philosophy towards life are all internalised aspects of culture. While these aspects may overlap across many cultures, there are usually some which are distinctive to a specific culture.

Finally, some aspects of culture are *observable and internalised*. An example is religion. Religious beliefs and values are internalised, while many related aspects are observable (e.g. religious ceremonies, clothing, accessories, rites and rituals). Another example is language, which is internalised but also observable (e.g. writing can be seen, and talking can be heard).

We cannot group people according to a single factor such as ethnicity, religion or language, and expect them all to belong to one specific, definable culture. Many differences between people in each group will always exist, and the uniqueness of every person must also be taken into account. What we can do, however, is look at some *cultural commonalities* that exist. For example, the internalised aspects of culture can be *broadly classified* as follows:

- **Communal cultures**, which place a high value on community, teamwork, conformity and collective unity within the family and the community.
- **Individualistic or "Western" cultures**, which place a high value on individuality, personal goals, and personal achievements such as wealth, status and prestige.
- **Blended cultures**, which incorporate elements of both communal and individualistic cultures. "Blending" occurs largely as a result of increased social mobility and increased cross-cultural integration.[2]

It is common to find many cultures represented in one place (e.g. a town or a country) because few societies are made up of people from only one culture. Because of this, we grow up being exposed to different cultures and most of us learn to identify with aspects of cultures other than the one we were born into. As unique individuals living in a multi-cultural world, we therefore do not have a "fixed" cultural position, and we are also not restricted by the culture into which we were born. At different stages in our lives, we may occupy different places on what can be thought of as a "cultural continuum".[3]

activity 6

What is My Culture?

Discuss the following with a partner:

1. Where would you place yourself on the following cultural continuum, and why?

highly communal ⟷ blended ⟷ highly individualistic

2. Is your current position on the continuum different to your position at birth? Explain your answer.

Time: 20 minutes

2.2 Developing Cultural Knowledge and Awareness

Interacting and communicating effectively with other people can be challenging, even when we know and understand them well. Interacting with people who are different to ourselves can be particularly difficult, especially when cross-cultural dynamics come into play. Misunderstandings can arise, unintentional offence can be given, and communication can break down altogether. However, if we have *knowledge* about other cultures (in terms of general customs, values, beliefs, etc.) we will know what types of behaviours and interactions are considered appropriate, and we can avoid communicating in negative, offensive or ineffective ways.

When we use our cultural knowledge to guide our interactions with people from other cultures, we are displaying *cultural awareness.* Cultural awareness also means using good judgment, tact and discretion, all of which are personal skills that can be learned or developed.

If we have cultural knowledge and awareness we will be able to interact with others in a positive, productive and friendly way. For most of us, this way of interacting is preferred because it makes our lives easier and happier, and it enables us to develop meaningful and productive relationships with others.

activity 7

Developing Cultural Knowledge and Awareness

As a class, brainstorm and discuss different ways in which you can develop your cultural knowledge and awareness.

Time: 10 minutes

As a facilitator, it is likely that you will interact with people from many different cultures. Some general guidelines for culturally diverse interactions are presented next.

Guidelines for verbal communication:

- Greet people in their own language. It is easy to learn basic greetings in a few different languages, and people generally appreciate it if you make this effort.
- Use plain language, and speak clearly and at a medium pace. Do not speak louder or slower than usual, as this appears condescending.
- If necessary, arrange for a translator to assist with communication.
- Show respect for the culture, beliefs, values and feelings of others.
- Avoid making judgmental statements or adopting a superior attitude.

- Avoid using uncouth or offensive language, as this is unprofessional and makes a poor impression.
- *Never* use language or words which are discriminatory or show prejudice, racism or sexism in any form.
- Use humour with caution, as humour is often language- and culture-specific and can easily be misunderstood or misinterpreted.
- If necessary, repeat back your understanding of what people have said to ensure that you have understood them correctly.
- Avoid losing your temper or becoming aggressive, even if you feel very frustrated or angry. As a professional it is important to be able to contain and control your outward emotional responses.

Guidelines for non-verbal communication:

- Use body language that shows friendliness, interest and concern (see Section 5.1 for more information on body language).
- Always shake hands with your right hand. Remember that many people prefer a soft grip rather than a firm grip – if uncertain, you can feel the grip of the other person first and respond accordingly.
- Apart from shaking hands, avoid making other physical contact unless you are certain that it is appropriate. Many types of physical contact are considered offensive or improper in different cultures. For example, Malays, Muslim Indians and many Asians consider backslapping to be inappropriate.
- Use your right hand or both hands to pass and receive items (e.g. forms, business cards, information brochures).
  - → In some cultures the left hand is considered unclean.
  - → In many cultures the polite way of giving or receiving something is to use both hands.
- Be aware of the fact that certain body language can mean different things in different cultures, so the meaning that you give to a person's body language may not be the same as the meaning they are trying to convey to you. Be slow to take offense, as none might be intended.

2.3 The Danger of Stereotyping

Stereotypes can be defined as "…beliefs to the effect that all members of specific groups share certain characteristics,"[4] or as "…ideas held by some individuals about members of particular groups, based solely on membership in that group. They are often used in a negative or prejudicial sense and are frequently used to justify certain discriminatory behaviors".[5]

Stereotypes can be applied to groups of any kind, such as cultural group as well as groups based on age, gender, race, ability, sexual preferences, physical attributes, religion, social class and profession. Negative stereotypes are typically used to justify racism, sexism and other discriminatory behaviours. Such stereotypes impact negatively on relationships and can easily lead to interpersonal conflict.

Stereotypes are based on generalizations, simplification, exaggeration, and the assumption that certain attributes are "natural". We learn stereotypes from external sources such as our parents, friends, teachers and the media, and we then process incoming information in ways that confirm and reinforce the stereotypes. We do this by noticing and highlighting information and behaviours which 'fit' a stereotype, and ignoring those which do not. In this way we verify and strengthen our belief in the stereotype.

activity 8

Stereotypes

Groupwork. Discuss the following in groups or as a class:

1. Why do you think we stereotype others?
2. What are some common stereotypes used in our society?
3. "It is important that facilitators avoid stereotyping others." Do you think that this statement is true? Why/why not?

Time: 20 minutes

Individual Work. Complete the following on your own, as honestly as possible:

1. Identify and list the stereotypes that *you* impose on others.
2. From whom did you learn each of these stereotypes?
3. How might these stereotypes impact on your relationships and interactions with others?

Time: 20 minutes

There are many reasons why stereotyping should be avoided. For example, stereotyping:

- negates individuality;
- can limit a person's potential;
- leads to prejudice when it is used to reinforce one's own sense of superiority;
- is used to 'justify' racism, sexism and other types of discriminatory behaviour;
- has a negative impact on personal relationships; and
- can cause interpersonal conflict.

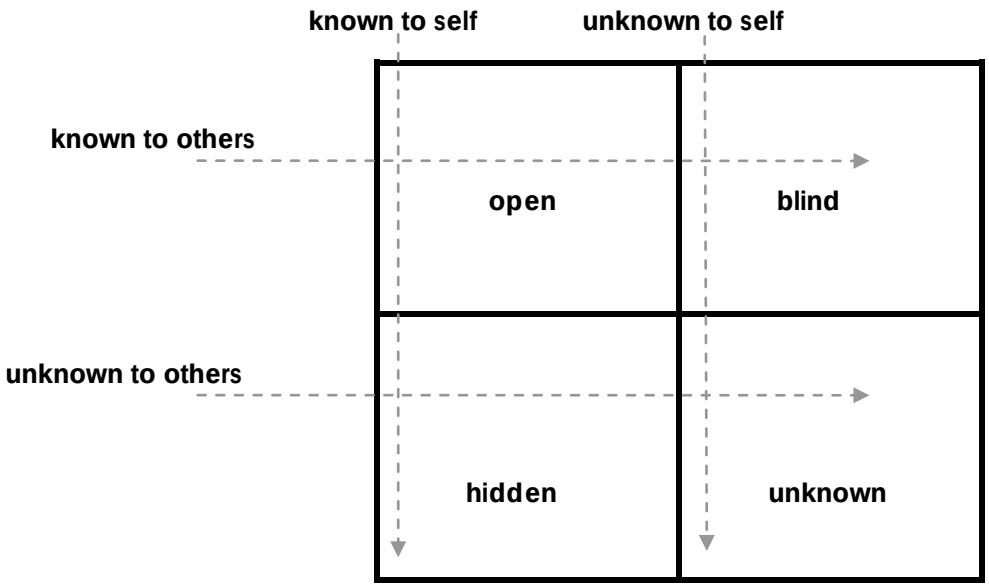
3. The Importance of Knowing Yourself

Facilitation is as much about *you as a person* as it is about your ability to apply a set of knowledge and skills to an individual or group process. It is important that as a facilitator you know and understand yourself well, as this self-knowledge will enable you to engage constructively with other people. The term "self-knowledge" refers to knowledge about your mental states, such as your values, attitudes, preferences, desires, character traits and motivations. If you apply self-knowledge to your relationships and interactions, you will be able to communicate well with others. You will also be able to negotiate and resolve misunderstandings and conflict more successfully, and you'll be able to conduct yourself in a manner that is socially and culturally acceptable and appropriate. For example, if you know that you get impatient quickly, your awareness of this characteristic can help you to understand *why* you get impatient (e.g. by identifying things which trigger your impatience); it can also prompt you to develop strategies to increase your patience, and to actively control yourself when your patience is being tested.

3.1 A Tool for Developing Self-Knowledge

A well-known tool for developing self-knowledge is the "Disclosure/Feedback model of awareness", also known as the ***Johari Window***. Developed in 1955 by Joseph Luft and Harry Ingham, this tool was designed to help people understand themselves, their relationships and their interpersonal communication better. There are different ways that the Johari Window can be used to develop self-knowledge; what is required for any method is an understanding of the four panes of the window and what they represent in terms of "the self".[6]

JOHARI WINDOW



open This area represents aspects of ourselves – such as our attitudes, values, desires and beliefs – that we are aware of and that others are also aware of. When we work in

this area we are at our most effective and productive, because it is here that we are "open books". This openness allows for good communication that is free from distractions, mistrust, confusion, conflict and misunderstanding.

hidden This area represents aspects of ourselves which we keep hidden from others, such as secrets, sensitivities, fears, hidden agendas, manipulative intentions and personal information. The extent to which we disclose these aspects to others determines the extent to which they are able to know us.

blind This area represents those aspects of ourselves which we do not know, but which others can see. In other words, it represents our "blind spot". Our self-ignorance and delusions fall within this area, as does information about ourselves which others deliberately withhold from us, so this is not an effective or productive space for us to work in.

unknown This area represents aspects of ourselves which nobody knows, not even ourselves. We are all far more complex than we can understand at a conscious level, but at times – for example, when we are faced with a completely unexpected event or challenge – certain things are revealed about ourselves which we never knew before. Latent abilities, aptitudes, hidden talents and feelings which have been repressed all fall into this area.

When using this model to develop self-knowledge, the aim is to increase the size of your open area and decrease the size of your blind, hidden and unknown areas.[7]

For example:

- If you receive information about yourself from someone who knows you well, your open area will increase in size while your blind area will get smaller.
- If you share something personal about yourself with another person, your open area will get bigger while your hidden area will decrease in size.
- If you discover a hidden talent, your unknown area will get smaller and either your open or your hidden area will get larger (which depends on whether you share your knowledge about this talent with someone else or not).

Other ways to increase your self-knowledge include Introspection (reflecting on your thoughts, behaviours, moods, emotions, beliefs, etc.), dream analysis (recording and analysing your dreams), therapy, and reflecting on personal feedback that is given to you by other people. We will now focus on two aspects of self-knowledge which underpin your behaviour and will to a large extent determine your success as a facilitator. These are your *attitudes*, and your *values*.

3.2 Attitudes

Figure 3.2 A smile reflects a positive attitude.

There are many things which can make you develop a negative attitude towards your job, your colleagues, your clients (i.e. farmers), and even yourself. For example, you may have to work with people who are unreasonably demanding or unappreciative, and your interactions with them leave you feeling frustrated or demoralised. Or, you may feel trapped in organisational systems which do not enable you to perform well or deliver services in effective ways. However, despite the challenges that you may face as a WHC facilitator, it is essential that you *develop and maintain a positive attitude.*

Having a positive attitude will bring many benefits to yourself and to your work. For example:

- Your ability to cope with difficult or stressful situations will increase.
- You will be more likely to obtain successful results.
- You will develop higher levels of control over yourself and your life.
- You will achieve greater job satisfaction.
- The people you work with and for will appreciate your positive attitude and the good service which accompanies a genuinely positive attitude.
- Your attitude will impact positively on the entire programme.

activity 9

Exploring Attitudes

Think about two people you know, one who generally has a positive attitude towards life, and one who generally has a negative attitude. Now, complete the following *in writing*.

1. How would you describe each of these two people to someone else?
2. How do you feel when you are around each of these two people, and why?
3. Which person do you prefer to be around, and why?

Now, think about yourself and your own attitudes.

1. How do you think your friends would describe you, and what does this say about your general attitude towards life?
2. Are there any specific areas in your life where you find it easier to maintain a positive attitude? What are they, and why do you think you feel more positive in these particular areas?
3. Is there anything you would like to change about yourself in relation to your attitude? How could you do this?

Time: 30 minutes

It is important to understand that you can control your attitude. This may require a conscious effort on your part, especially if you don't consider yourself a "positive" person. One method that you can use to consciously control your attitude is to act and behave as if you feel happy and positive, even when you don't really feel this way. Doing this will help trigger positive feelings in yourself, which in turn will make it easier for you to start feeling genuinely positive. It will also elicit positive reactions from those you are interacting with, which will help you to feel more positive. Developing this skill takes effort and practice, but it can be done.

Other strategies to help control your attitude include minimising your interactions with negative people, learning to laugh at yourself, developing empathy, being energetic and enthusiastic (which increases your self-motivation and your sense of well-being), and enjoying all new experiences and creative moments, even if they are small and seemingly insignificant. Remember that every single thing you do has potential value to yourself and others, and that life can be enhanced through a positive attitude.

3.3 Values

Our values are the deepest ideals or beliefs that we subscribe to because they are meaningful to us.[8] It is our values which to a large degree determine our decisions, shape our behaviours and guide our lives. Each of us has an unique set of personal values. However, it is also likely that we share some of our values with other people, particularly those who are similar to ourselves in some way (e.g. people who share a similar culture or have had a similar upbringing).

Some examples of commonly held values are:

"ubuntu"	Freedom	friendship	wealth	punctuality
success	Fun	reliability	cleanliness	community
individuality	cooperation	creativity	democracy	independence
fairness	Faith	love	loyalty	romance
money	Power	pleasure	privacy	success
wisdom	Tolerance	trust	morality	dedication
commitment	Honesty	autonomy	courage	family
beauty	Optimism	safety	love	stability

activity 10

What Values Have Shaped My Life?

Think about five values which have helped shape your life, and identify specific ways in which each of these values has guided your decisions and behaviours. Share this information with a partner.

Time: 10 minutes

activity 11

Value Analysis

1. List five values which are very important to you at the moment. Now answer the following:

   1.1 Which of your current values do you think will *enhance* your ability to be an effective facilitator, and why?

   1.2 Which of your current values do you think may *inhibit* your ability to be an effective facilitator, and why?

2. Identify two new values which you think might make you a better facilitator of participatory processes. Now answer the following:

   2.1 In what ways do you think each of these two values might make you a better facilitator?

Time: 20 minutes

4. The Role of Knowledge

As a PTID facilitator, your role in relation to knowledge is two-fold. Firstly, you bring *your own knowledge* into the facilitation process. Part of this knowledge will be ***explicit***, which means that it can be articulated, expressed or recorded using language or numbers. *Data* (raw facts and figures) and *information* (processed data with additional meaning) are both examples of explicit knowledge. Another part of your knowledge will be ***implicit***, which means that it is unwritten, unspoken knowledge which you have accumulated over time, through your experiences, insights, intuition and observations. Both your implicit and explicit knowledge will increase as you gain experience in WHC and as a WHC facilitator.

As a facilitator you need to have the ability to share your knowledge with farmers in ways that are appropriate to the context. This calls for good communication skills, and in certain situations – for example, when you are working with groups of people – you will also need to have strong presentation and demonstation skills.

Secondly, part of your role as a facilitator is to facilitate the PTID process in such a way that the *knowledge of farmers* – both explicit and implicit – emerges and is shared with others. In the next section of this chapter as well as in other parts of this guide you will be introduced to some

facilitation skills that will help you with this process; you will also be given opportunities to practice and develop these skills.

activity 12

Knowledge-Sharing

As a class, brainstorm and discuss the following:

1. What **explicit** knowledge can you as a WHC facilitator bring to the PTID process? Be specific.
2. What **implicit** knowledge can you as a WHC facilitator bring to the PTID process? Be specific.
3. What **explicit** knowledge might farmers bring to the PTID process? Be specific.
4. What **implicit** knowledge might farmers bring to the PTID process? Be specific.

Time: 20 minutes

5. Essential Skills for a Facilitator

A skill can be defined as "...the ability to perform tasks correctly with ease and precision".[9] As a facilitator, you will need to be equipped with a range of skills so that you can be effective in your work.

Some essential skills that you need to develop include:

- **Communication skills** (e.g. listening and speaking skills).
- **Presentation and demonstration skills** (e.g. the ability to use visual aids effectively).
- **Working with groups** (e.g. the ability to facilitate group and individual processes in constructive and productive ways, and the ability to prevent and resolve conflict and misunderstandings).
- **Writing skills** (e.g. record-keeping and report-writing skills).

It is likely that you are already skilled in some of these areas. At the same time, it is also possible that you feel overwhelmed by the range of new skills that you need to develop, or intimidated by specific tasks which you find scary. What you should try to remember is that even highly experienced facilitators can experience stress when they have to do certain things, such as talk in front of a group of people. The experience of stress is *natural*, and is actually essential for our

survival and our general wellbeing. The word stress means 'to strain' or 'to tighten'. This is what happens to our bodies when we are faced with a threatening situation. We tense up, our hearts pound, our muscles contract and our lungs expand, enabling us to respond with greater than normal strength and speed. A certain amount of stress can actually help us in different ways. For example, it can motivate us to study for an exam, it can prompt us to prepare thoroughly for an important presentation, and it can help us perform optimally. It can also prevent us from being over-confident and thus setting ourselves up for failure. It's also important to remember that anybody can develop new skills and improve on current ones – what is required is a *positive attitude*, a developing sense of *self-confidence*, and lots of *practice*.

5.1 Communication Skills

Body Language (Non-Verbal Communication)

Even when we are speaking, most of our communication takes place at a non-verbal level because we communicate a large amount of information with our bodies. We do this through gestures, movements, posture, expressions and eye contact, all of which reveal and convey our current moods, emotions and reactions to others. It is important to be aware of your body language so that you are conscious of what you are communicating non-verbally. You also need to be able to read and understand the body language of others so that you are more fully aware of what they are communicating to you.

Gestures are usually recognisable because they are used by many people, and they communicate very specific messages. An example is a "thumbs-up" gesture to show approval, or blocking one's nose to show disgust. However, some gestures are culture-specific and mean different things in different cultures, so gestures should be used carefully. Tension gestures such as fidgeting, scratching, nail biting, foot tapping, or fiddling with objects should be avoided as they are distracting to others and they communicate a high level of negative emotional arousal (such as anxiety, nervousness, displeasure or stress).

Figure 3.3 Positive body language expressed with an open posture and a wave.

Expressions such as smiling and frowning convey emotions easily, but can also be used deceptively (for example, a false smile). A *micro-expression*, (an expression which is fleeting, lasting less than a second), can be more revealing than a constant expression, because it shows what a person really feels before they put on a "mask".

Your **posture** is the way in which you hold your body. Leaning away from people, not facing them directly, looking away or down when they speak, slouching and crossing your arms are postures which indicate dislike or disinterest, and should be avoided. Postures such as leaning towards people, facing them directly, nodding while they speak, and having an "open" posture communicate respect, like and acceptance. These are appropriate postures to use as a facilitator.

activity 13

Body Language

Stop exactly as you are and examine your body language closely

What are you communicating to others at this very moment? Have you been aware of this? Is this the message that you want to communicate? What could you do to communicate a different message?

Time: 10 minutes

Listening Skills

activity 14

What Makes a Good Listener?

Think about someone who you feel listens to you well, and someone who doesn't.

What makes the first person a good listener? What qualities do you really appreciate in this person? How often do you talk about important things with this person, and why? What makes the second person a poor listener? How often do you talk about important things with this person, and why?

Time: 10 minutes

While listening is the single most important part of communication, most people seldom have the experience of being really listened to and heard. If you as a facilitator are able to listen well, the people with whom you work are likely to feel that their knowledge and experience is valued, and they will be more likely to work with you in open and creative ways.

Good listening requires practice and discipline. It involves the ability to focus and concentrate without being distracted. It also involves listening with all your senses – hearing what a person is saying with their words, tone, expression and body language. This type of listening is referred to as *active listening*. The following are guidelines for good active listening:

- *Stop talking*. You cannot listen if you are talking or planning your response ahead of time. Do not interrupt another person while she or he is talking.
- *Show that you really want to listen*. Look, act and *be* interested. Listen with an aim to

understand the person who is talking.

- *Remove distractions*. Do not allow other people or things to distract you when you are listening. Do not fidget.
- *Be patient*. Do not rush others. Give them time, and do not interrupt them.

Speaking Skills

Good speaking skills are necessary for clear communication. The following factors determine how your voice sounds to others:

Pitch – this is the tone in which you speak, and ranges from low to high.

Speed – this is the pace that you speak at, and can range from slow to very fast. If you talk too fast, people may lose track of what you are trying to say. If you talk too slowly, people may become impatient, try to put words in your mouth, or think that you are not too smart.

Volume – this is the level of your voice in terms of loudness. The appropriate volume to use will depend on the situation. You will need to use more volume when addressing a group of people than you would when speaking to someone who is standing close by.

Inflection – this is the change in your tone or pitch, and is what gives your voice character. We use inflection to show concern, interest, enthusiasm, etc. towards the subject that is being discussed.

Enunciation – this is the way in which you pronounce your words. When you pronounce words properly, they are clear and precise and easy to understand.

The following are guidelines for good speaking skills:

- Look at people when you talk to them. This engages their attention and allows the sound of your voice carry to their ears.
- Speak clearly and avoid mumbling.
- Avoid speaking too loudly or too softly.
- Speak at an even pace.
- Use professional language and avoid slang.
- Frame your responses in positive language.
- Think about what you want to say before speaking out.
- Make sure that your voice does not sound sarcastic or patronising.
- Do not raise your voice or shout, as this is disrespectful to others.

activity 15

Speaking Skills

Form groups of five. Each member must select one question from the list below, and then prepare and present a detailed answer to the rest of the group.

Questions:

1. How does how the water cycle work?
2. What is soil texture and how do you conduct a soil sausage test?
3. What is water harvesting and conservation?
4. What are the five factors involved in the formation of soil?
5. How does water erosion occur and what is the difference between sheet, rill and gully erosion?

After each presentation:

- Group members must provide the presenter with *constructive* feedback on his/her speaking skills and body language.
- The presenter must share his/her experience of the group in terms of how the members listened and what their body language conveyed.
- The presenter must share his/her experience of speaking in front of the group. (What was easiest? What was most difficult? etc.)

Time: 1 ½ hours

Questioning Skills

Questioning skills are particularly important as they allow us to obtain, verify or confirm information that has been received. This information may be ***quantitative*** (i.e. objective information that is measurable and thus involves numbers, quantities, measurements, values, etc.), or it may be ***qualitative*** (subjective information that cannot be measured, such as information that helps us understand how people feel or how they make sense of their lives and experiences).

You will be using questions throughout the PTID process, so it is important to understand the difference between the following types of questions:

Closed-ended questions – these are direct, straightforward questions that are aimed at receiving *specific information*. They are usually answered briefly, often with a "yes" or "no". Closed-ended questions can be used to obtaining quantitative information.

For example: Do you have a water tank?
Which method are you planning to use?
How much does this cost?

Open-ended questions – these are questions which can be used to help us understand issues and concerns, identify needs, and explore problems. They cannot be answered with a "yes" or "no" because they are *probing questions* which usually receive a lengthy response. Open-ended questions can be used to obtain qualitative information.

For example: What are your concerns about this method?
What obstacles have you overcome?
What are your preferences?

Ambiguous *questions* – these questions that have at least two possible interpretations. In other words, they can be understood in more than one way. They can easily be misinterpreted, so it is important to avoid using them.

Example 1: How did you find these tools?

Possible meanings: Where did you get these tools from?
What are these tools like to use?

Example 2: Was the furrow dug by the woman with the spade?

Possible meanings: Was the furrow dug by the woman who is holding a spade?
Did the woman dig the furrow with a spade?

Leading questions – these are questions which suggest a specific answer or imply that there is a correct answer, and as such they should also be avoided.

For example: Don't you think this is a better method to use?
Shouldn't you cover your water-storage container?
Isn't the weather terrible?

It is important to frame your questions carefully so that they are appropriate for the type of information you are trying to draw out. Listen to a person's answer before asking a new question or beginning to formulate one in your mind (this requires good listening skills). Also, be sure not to answer your questions yourself (e.g. "When do you get the most rain? It's very dry right now, I'm sure you must have summer rainfall," or "How long is this furrow? It must be about 10 metres.").

activity 16

Tell Me About Yourself....

Write down twenty different questions that you could ask someone in order to get to know him or her better. Don't spend a lot of time on this, just write down the questions which come to mind first. Now, analyse your questions by doing the following:

1. Identify any questions that are *ambiguous* or *leading*. If you find any, re-phrase them so that they are not.
2. Group all of your questions under the headings *closed-ended* and *open-ended*.
3. Examine your closed-ended questions and think about the type/s of information that they are likely to elicit.
4. Examine your open-ended questions and think about the type/s of information that they are likely to elicit.
5. Try to re-phrase all of your closed-ended questions so that they are open-ended. Is it possible? Why/why not?

After you have finished step five, share and discuss your analysis with a partner. (This person can also double-check that you have identified all ambiguous and leading questions.) Write down two things that you have learned from this activity.

Time: 40 minutes

5.2 Presentation and Demonstration Skills

As a facilitator there will be times when you have to share some of your own knowledge with a group of people. There will also be times when you need to demonstrate tasks, such as how to construct an A-frame or mark out contour lines. In this section we will look at some of the skills that will help you with these tasks.

Preparation

It is important to be well-prepared. When you are going to *present* information you need to make sure you have a good understanding of the topic so that you can speak clearly and confidently and can answer questions (although it is also fine to say "I don't know the answer, but I will try to find out"). You also need to make sure that you are equipped with all the materials that you may need. For example, if you are going to present information visually, you must have your visual aids and any other materials you need (such as prestik) ready.

If you are going to *demonstrate* a task to an individual or group, make sure that you have all the equipment and/or materials that you need (e.g. a spade, tape-measure, A-frame, string, etc.). You also need to arrange a site for your demonstration. This may be someone's garden or field, or a communal site. Make sure that you have permission to use the site.

Visual aids

Visual aids such as posters, pictures, maps, photographs and diagrams can be used to help stimulate interest in a subject, illustrate points which are hard to explain with words alone, and reinforce, clarify or simplify ideas.

Figure 3.4 Visual aids can be used to help stimulate and maintain interest in a subject.

Posters are particularly useful visual aids. They are light, easy to transport and cost little to make, and they can be used to present simple or complex information in creative ways. Posters can also be left on display so that farmers can look at them later.

When presenting information using visual aids:

- Make sure that every person has a clear view of the visual aid. A good seating arrangement for this is a semi-circle.
- Stand to the side of the visual aid so that you do not block it from view.
- Speak facing the people, with the visual aid next to you. Never talk facing the visual aid, (i.e. with your back to people) as you will lose their attention.
- Speak clearly and make sure that everyone can hear you.
- Use your hand to point to specific information.
- Avoid reading written information – instead, talk to your audience and refer to the visual aid when necessary.
- Make eye-contact with different members of your audience – it will keep them focussed.
- Use language which everyone can understand. Avoid technical and academic jargon.
- Allow time for questions and feedback.

Figure 3.5 Do not block the visual aid from view.

As a facilitator, one of the tools that you will use with farmers is called "visualizing". This involves farmers putting their ideas into visual images so that the ideas can be shared in a focused manner. These images are usually drawn onto big sheets of paper (e.g. flipchart paper or newsprint), While there may be occasions when you as the facilitator present the visualized results to a group, the presentation is usually done by the farmers themselves. In this situation, your role as a facilitator is to gently encourage farmers to

present the information well. For example, if a farmer stands directly in front of his/her poster, you could say the following: "I'm not sure that everyone can see your poster – perhaps you could stand a bit to the side." Or if a farmer speaks too softly, you could say: "I don't think that people at the back can hear you, would it be possible to speak a bit louder please?".

Demonstrations

When doing a demonstration, make sure that everyone can see what is being done. If you are working outside with a group, encourage people to stand close to you, with a clear view of what is being demonstrated. Speak clearly and check that everyone can hear you. Allow people to ask questions, and encourage them to share their own knowledge or ideas with the group.

Figure 3.6 In this demonstration, all group members have a clear view of what is being demonstrated.

Figure 3.7 In this situation, quite a few people do not have a proper view of the demonstration. This often happens when groups are large.

If possible, give each individual the opportunity to assist with part of the demonstration. This will help the group stay focused on the task, and their active involvement will promote faster and more integrated learning.

Figure 3.8 A group member helping with a task during a demonstration.

activity 17

Individual Presentation

1. Select any WHC method you have learned about and prepare a short presentation on the steps which must be followed to implement the method. Use the guidelines from the Technical Manual to assist you with this task.

2. Practice your presentation until you feel confident doing it. You can practice alone or in front of some friends or family members. If you practice in front of others you can ask for feedback, which you can then use to fine-tune your presentation.

3. Come to class prepared to give your presentation in front of a group of people. Your facilitator will provide you with further instructions for this.

Time: 2 hours

activity 18

Individual Demonstration

1. Select <u>one</u> of the tasks from the list below, and prepare to demonstrate it to a group of people. Make sure that you have all the materials needed for the demonstration you choose to give.

    - How to make an A-frame *<u>or</u>* how to make a line level.
    - How to mark contours using an A-frame *<u>or</u>* a line level.
    - How to measure slope using an A-frame *<u>or</u>* a line level.

2. Practice your demonstration until you feel confident doing it.

3. Come to class prepared to give your demonstration in front of a group of people. Your facilitator will provide you with further instructions for this.

Time: 2 ½ hours

5.3 Working with Groups

As a facilitator you will spend a fair amount of time working with groups of people. Working with groups can be particularly challenging, especially in situations where group members are wary of outsiders, are distrustful of each other, or are not used to being involved in processes which involve high levels of participation. The following guidelines can help when you facilitate groups, although the best way to develop your skill in this area is through experience.

Figure 3.9 A facilitator working with a group.

The importance of being prepared for a group facilitation session

Calling a group of people together for a meeting or a workshop can be intimidating because you are asking people to commit their time and sometimes money to attend, which means that they will have expectations of you. It is essential that you are properly prepared for two reasons:

- Firstly, people will have made an effort to be there and they deserve your best effort to make the session productive and useful.
- Secondly, if you are prepared you will be more relaxed and focussed, and will be able to concentrate on the centrally important task of facilitation. Remember that the methods and participatory approaches that you use will achieve little if the facilitation is not done with full commitment and effort.

Things to think about before the facilitation session

To prepare you should think through the process that you will follow with the group, and ask yourself a number of questions:

a) What do I want to achieve?
b) How will I introduce myself and the content of the session?
c) What activities or information-sharing will take place?
d) What materials will be needed (such as coloured Koki pens, prestik, paper, data projectors or other visual aids)?
e) Is the venue booked and suitable? Are there chairs that can be arranged in a semi-circle, and tables to work on if needed?
f) How much time will I need for each part of the meeting or workshop process?

Once you have thought things through, it is useful to imagine the process of the workshop and visualise yourself facilitating the different activities that are planned. This will help you to feel prepared, both in terms of the things you need to organise as well as your own mental and emotional state.

Introducing yourself

It is good manners to introduce yourself by name, and to give people your contact number and organisational details at the outset of a session. These details should also be written down in a place where group members can see and refer to them. Doing this inspires confidence in you and allows people see that you are keen to be in touch and to be accountable for your involvement in the process.

Transparency and openness

It is likely that everyone who attends your session has been to meetings where promises were made, but were not followed up on. You must be honest and open from the outset about who you represent and what your or your organisation's agenda is. Allow time for people to ask questions so that they can clarify the process for themselves and determine what – if anything – they might gain from participating in the session. If you are simply collecting information and people stand nothing to gain, then be direct about it and you will find that most people will gladly assist you. Treating people as if they are simple because they are rural, elderly, or not formally educated, and skirting around your purpose or the process, is disrespectful and has no place in this kind of work.

activity 19

Allow Me to Introduce Myself....

Step 1: In groups of four, discuss how you could introduce yourself to a group of people you have never met before. Remember that you need to provide your name and contact number, and that you need to say who you represent and what you or your organisation's agenda is. Then, take turns practicing in front of your group until you feel comfortable doing this.

Step 2: Introduce yourself to the entire class. Don't worry about how it goes – the aim is to learn from the experience and think about what you can do to introduce yourself to a large group in a confident but respectful way.

Time: 1 hour

Group Discussions

Discussions can be a productive way to develop a shared understanding of a subject. When facilitating a discussion it is important that all group members are treated with respect. This can be done by listening to all comments and input carefully, and by never criticizing, passing judgement or dismissing the views of any individual.

One of your roles as a facilitator is to encourage participation from all group members. However, you should never force or pressure a person to speak out if they do not feel comfortable doing so, and you should try to make sure that nobody dominates a group discussion.

How to engage a quiet person

There are many reasons why a person may be quiet during a group discussion. A person might be shy, bored, distracted, indifferent, or having difficulty understanding the topic. To encourage the participation of quiet group members:

- Do not call on the person by name, as this will put them "on the spot" and may result in their withdrawing from the process even further. Instead, you can ask the following: "Does anyone who has not spoken up yet have anything to add?".
- Welcome any comments that quiet individual *do* make in a sincere way, as this may encourage them to speak up more often.

How to handle side conversations

- Make eye contact with the people who are talking to get their attention back to the group process.
- Ask the participants to share their ideas with the group, but do this respectfully and without embarrassing them.
- If necessary, talk to the individuals in private (i.e. during a break) about their side-conversations and how they seem to be disrupting the group process.

How to handle a person who dominates the discussion

There are many reasons why a person may try to dominate a discussion. For example: a person may have his or her own private agenda; they may have extensive subject knowledge which they are trying to show off; they may have a natural need for attention; or they may be demonstrating their authority to the group and yourself. When one person is dominating a discussion, you can give him or her a special job which enables them to contribute in a more useful way. For example, ask him/her to assist you by writing down key points which arise from the discussion, or ask him/her to give a brief presentation on their area of expertise (in which case you will need to tell them exactly how long their presentation should be).[10]

5.4 Managing Conflict

Conflict is a reality of everyday life. It was traditionally believed that conflict is negative and should be avoided at all costs. A more recent perspective is that conflict is a natural outcome in any relationship or group, and has the potential to be a positive force.

Conflict can help groups to perform effectively, because certain types of conflict stimulate change and innovation. This view differentiates between different *types* of conflict. Some conflict is ***functional*** (i.e. constructive conflict which supports the goals of a person or group and improves performance), while some conflict is ***dysfunctional*** (i.e. destructive conflict that is usually based on emotions and that reduces the performance and effectiveness of a group or individual). It is only functional conflict that has the potential to be a positive force.

Conflict can arise between individuals or groups, and can occur for many reasons. Disagreements, competition for scarce resources, power differentials, misunderstandings, and the misinterpretation of verbal and non-verbal communication are all examples of things which can lead to conflict.

Conflict usually causes emotional discomfort for those involved, due to the negative feelings that it generates. This discomfort is the reason why many of us struggle to deal with conflict effectively; it is also the reason why it is essential that we learn to manage and resolve conflict as quickly and effectively as possible. It is self-defeating to avoid conflict resolution because unresolved issues do not simply disappear; instead, they simmer or grow, and sooner or later they will come to the fore again.

Figure 3.10 Conflict can cause emotional discomfort for those involved.

Each of us responds to conflict situations in different ways. Our responses often depend on things like the circumstances of the conflict (whether the conflict is at home, at work, within the community, etc.), who we are by nature (quick-tempered, even-tempered, tolerant, intolerant, etc.), and how we were raised and/or educated to respond to conflict (hit back, turn the other cheek, etc.).

We all have preferred ways of reacting to and dealing with conflict, and this can be seen as our basic *conflict style*. Although each person's style is completely unique, studies have shown that most people have developed styles which fall under one of the following broad categories:

Competing – a person tries to put their needs before or at the expense of others; this style is sometimes used when people stand up for their rights, defend their position or beliefs, or simply try to win something.

Controlling – a person with this style sees conflict as a win-lose situation, and will use whatever power is necessary to try to win.

Accommodating/Yielding – this is a cooperative, but also fairly unassertive, style which is used by people who value good relations and are willing to place the needs of others above their own if doing so means keeping the peace.
Avoiding – this style involves completely withdrawing from or avoiding conflict with the hope that it will "go away"; people who use this style tend to experience conflict as threatening or a source of extreme discomfort.

Compromising – a person who uses this style aims to find a mutually acceptable solution which satisfies both parties; a compromise means that each person has to give up something of value, but both parties still come out partially satisfied.

Collaborating/Joint problem-solving – this is an assertive and cooperative style which involves trying to work with the other person or people to find a solution which fully satisfies the concerns of both parties; this makes it a win-win situation in that neither party has to give up anything, and both stand to gain.

Some people tend to have a "fixed" conflict style (i.e. they approach all conflict situations in a specific manner). Other people, however, change their style according to the specific situation. This is a useful approach because each conflict style is actually appropriate in certain situations. A controlling style, for example, is appropriate when you are sure you are right and it is critical that action is taken immediately (e.g. in an emergency situation), whereas a yielding style can be appropriate in situations where you don't mind what the outcome is.

The way in which you respond to conflict is obviously very important because it will influence the progression and the outcome of the conflict situation. As an outsider entering a community with the aim of facilitating a participatory development process, you may be required to help different parties (such as farmers or other community members) resolve conflicts of their own. The Conflict Management Process outlined next is designed to help you approach these situations in ways that should promote functional rather than dysfunctional results.

CONFLICT MANAGEMENT PROCESS

Step One Remind yourself that conflict is inevitable but also manageable. Think about the conflict as being constructive rather than destructive.

Step Two Reflect on the situation, thinking specifically about the observable facts, relevant issues, and the feelings of those involved. This will help you prepare to deal with the conflict situation. It is important to have a clear understanding of the actual problem which is causing the conflict, so that you can separate the problem from the emotions or feelings which it and the resulting conflict has aroused.

Step Three Arrange a meeting to discuss the situation. It is useful to arrange to meet in a neutral venue. This is a place where all parties are equally comfortable.

Step Four Agree on some guidelines or rules for the discussion (such as listening, not interrupting, not being negative). When people address conflict together, they make different assumptions about *how* it should be addressed. To avoid this

leading to further conflict, first discuss and agree on the processes needed to address the conflict.

Step Five Invite each person or party to describe what they see as the issues, and what those issues mean to them. Make sure that each party is given an equal opportunity to discuss their side of the situation. This helps people focus on the actual problem, while still acknowledging their feelings. If necessary, encourage people to keep an open mind and to avoid being defensive or negative.

Step Six Invite parties to brainstorm solutions to the problem and to discuss what each solution means to them. After possible solutions are generated, each should be evaluated and viable options should be explored.

Step Seven Get parties to agree on a clear and specific plan of action which keeps everyone's interests in mind.

Step Eight Ask parties to agree on a time and way to evaluate success.

The **Six Point Problem Solving Approach**[11] presented next is useful for when you personally are involved in a conflict situation.

SIX POINT PROBLEM SOLVING APPROACH

Step One: Identify the problem

- Each person shares his or her perspective, view and feelings about the problem.
- Areas of agreement and commonality are affirmed.
- Issues needing to be addressed are identified.

Step Two: Brainstorm the needs and wants of the parties

- Identify what each person would like to see as the outcome.
- Discuss which are *needs* (that are probably important to their interests being met).
- Discuss which are *wants* (what he or she would like to see happening, but they might be able/willing to shift on these).

Step Three: Brainstorm solutions

- Generate possible solutions together without discussing any one point until there are no more ideas for the moment.
- Record all ideas (be creative – sometimes the most "way out" ideas lead to the best solution).

Step Four: **Evaluate and choose win-win solutions**

- Go through the list of solutions generated – deciding on how they could be realised.
- Choose the solution that will achieve the closest to a win-win outcome as possible.
- Sometimes it might be necessary to combine ideas or modify them.

Step Five: **Implement the chosen solutions**

- Be specific about how the chosen solution(s) will be implemented – the what, where, when, who, how, etc.
- Write the agreement down and each sign it.

Step Six: **Evaluate the results**

- Agree on a time, place and process to evaluate the success of the solution.
- If the solution needs to be modified, be willing to go through this process again to generate even better options.

The following guidelines can also be useful when dealing with conflict generally:

- Try to stay calm and rational at all times.
- Try to keep your emotions and temper under control.
- Do not respond in aggressive or defensive ways.
- Listen carefully to what other parties have to say.
- If you need to ask questions, do so in a non-threatening way.
- Repeat back your understanding of the other party's views.
- Focus on working together to identify solutions that will satisfy the needs of both parties (ie. always try to negotiate a win-win outcome).

The process of problem-solving is new to many people, so do not get discouraged if your attempts at resolving conflict are not always successful. You may have setbacks, but by constantly trying to be conscious of your own communication patterns and styles, you can actively work towards developing excellent conflict management and resolution skills.

5.5 Preventing and Resolving Misunderstandings

Misunderstandings can arise due to poor listening skills, a lack of empathy, and mis-interpretation of verbal and non-verbal communication (often due to language and cultural differences). Misunderstandings can cause emotional tension, frustration, anger, embarrassment or conflict, and should be resolved as quickly as possible.

Guidelines to help prevent misunderstandings:

- Keep your own emotions under control at all times; emotions such as anger, anxiety, annoyance and impatience are likely to provoke undesirable and negative responses in others.
- Be sensitive to social dynamics and emotional arousal in others by paying close attention to their body language, facial expressions, etc.
- Show courtesy to others, be pleasant, respectful, patient and empathetic.
- Use good listening skills; as far as possible, allow people to talk without interruption and clarify your understanding of what is being said.
- Speak clearly and calmly.
- Avoid offensive mannerisms and gestures.
- Explain carefully what you can and cannot do. Offer regret for any inconvenience or disappointment. If there is something you cannot do, explain why not.
- Do not make unrealistic promises that cannot be kept, as this will lead to further unhappiness and misunderstanding.
- Follow up on any commitments that you make.

Steps to help resolve misunderstandings:

- Try to resolve misunderstandings as soon as they arise.
- Do **not** lose your temper or respond in an aggressive or defensive way. Keep your own emotions under control at all times so that you can address the misunderstanding calmly and rationally.
- Listen carefully to what other people have to say. Ask questions in a non-threatening way to clarify how the misunderstanding has come about.
- Repeat your understanding of the problem back to the person, and suggest ways to resolve it.
- Empathise by putting yourself in the other person's place.
- Apologise and assume responsibility for misunderstandings.
- Do all you can to resolve the misunderstanding quickly by identifying and acting on solutions which satisfy the person's needs.

6. Writing Skills

Recording what you have *done* and what you have *observed* is usually a requirement of any organisation that you might work for. It is also useful to document things for yourself on a monthly basis, even briefly, so that you have a record of what has taken place.

As a facilitator your purpose is to make a positive contribution to a process. As this process unfolds you will observe social dynamics, technology uptake (or rejection), and new farmer innovations. The discipline of monthly report-writing is useful for two reasons. Firstly, you will have

information recorded for future reference, and secondly, the report-writing process will make you stop, reflect and think about what has happened. These are both good reasons to compile a short monthly report *even if it is not an organisational requirement*.
Reports do not have to be long or difficult to write, and can be just a few pages. Your organisation might have a set format that you have to follow, in which case you should obviously do so.

7. Working with an Interpreter

Sometimes you may work in an area where you don't speak the local language fluently, in which case you will need to find someone who can interpret for you. It takes more than just the ability to speak both languages to be a good interpreter. Other qualities that are important are:

- good listening skills
- good speaking skills
- a willingness to interpret what is being said *verbatim* (word-for-word)

Before you get someone to interpret for you in front of a group of people, spend a bit of time in private talking through the process that you will follow, and explaining your needs and expectations in relation to their role. Make sure that the person understands *exactly* what you are asking them to do, and agrees to this. If possible, practice together for a while until you both feel comfortable with how you are working together.

Important guidelines for the facilitator:

- Speak directly to your audience, not to the interpreter.
- Speak clearly and not too quickly.
- Keep your sentences reasonably short.
- Say one or two sentences and then pause. Maintain eye contact with your audience while the interpreter repeats what you have said.
- Don't have private conversations with the interpreter in front of your audience.
- If it is clear that the interpreter is adding to what you have said (e.g. by taking a few minutes to interpret one or two sentences), it is essential that you address this immediately but without embarrassing the interpreter. Call for a short break and use the time to discuss this issue privately. Remind the interpreter of their role and your agreement, and explain why it is important that they do not add anything to what you are saying to the audience. If the interpreter feels that they can add more value to the session by being part of the audience and thus having the opportunity to give their own input to the discussion, thank them for their honesty, and then find someone else to interpret for you.

Important guidelines for the interpreter:

- Listen carefully to what the facilitator says.
- When the facilitator pauses, repeat what s/he has said word-for-word. **Do not add or leave out anything.**
- When interpreting, look directly at the audience (not at the facilitator).
- As far as possible, use the same tone and expressions that the facilitator has used.

Examples of how an interpreter should and should not interpret:

Facilitator says:	**Interpreter must repeat in local language:**	**Interpreter must NOT say something like:**
My name is Gloria Pato.	My name is Gloria Pato.	She says her name is Gloria Pato.
I'd like to welcome you and thank you for attending this meeting.	I'd like to welcome you and thank you for attending this meeting.	She says that she welcomes us here today.
I am an extension officer who works for the Department of Agriculture.	I am an extension officer who works for the Department of Agriculture.	She says she's an extension officer, just like that man who came here last month to look at our gardens.
I'm interested in water harvesting and conservation and am very interested to learn about the water in this area.	I'm interested in water harvesting and conservation and am very interested to learn about the water in this area.	She says she's here to help us with our water problems and soil conservation.

8. Time Management

Good time management skills increase the control that we have over our time. The aim of good time management is to get things done efficiently and effectively.

Planning is an important part of time management because it forces us to think ahead and prepare ourselves appropriately. *Planning aids* are tools which we can use to help manage our time effectively. Although most of the aids discussed below have been developed for business purposes, they can all be adapted for other work contexts and for personal use. Different types of planning aids suit different needs, but all of them can help us plan, record and keep track of tasks, commitments, appointments and projects.

Diaries

Diaries can be used to schedule appointments and keep track of work commitments, tasks and activities in an ongoing manner. There are many types of diaries available and you should choose one which suits your needs. An executive diary, for example, has special features such as maps and travel information – this may be useful if you have to do a lot of travelling.

Action Plans

An action plan is a list of all the key tasks and activities which you have to complete in order to achieve a specific goal. It also specifies when each task or activity must start and when it must be completed so that the goal is reached within the time-frame specified.

To compile an action plan:

- List all the key tasks and activities which you have to do in order to achieve your goal.
- Arrange them into the order by which they must be completed (chronological order) and according to their importance (with more important tasks coming first).
- Draw up a simple template to record your action plan (see the example provided).
- Compile your action plan by writing down your key tasks under the appropriate day and in the correct order.
- Keep the plan visible (e.g. in your diary) so that you can check your plan quickly and make sure that you are completing your key tasks on time.

ACTION PLAN

Goal: _____ **Week:** _____

Monday	Action	1: _____
		2: _____
		3: _____
Tuesday:	Action	1: _____
		2: _____
		3: _____
Wednesday:	Action	1: _____
		2: _____
		3: _____
Thursday:	Action	1: _____
		2: _____
		3: _____
Friday:	Action	1: _____
		2: _____
		3: _____

“To Do” List

A “To Do” list is a basic time management tool that you can use to list all of the tasks that you must do on a particular day, in order of importance. This helps you to control your workload and to focus on the most important aspects of your job.

To compile a “To Do” list:

- List in any order all the tasks and activities that you must do.
- Prioritise all the items (e.g. write a 1 next to the most important task, a 2 next to the second most important task, and so on).
- Re-write your list placing tasks in order of priority, with the most important at the top and the least important at the bottom.
- Start with the first task on your list, finish it off and proceed with the next one.
- If new tasks arise, add them to your list and reallocate your priorities. If a new task is very important you can give it a high priority and work on it immediately. By upgrading or downgrading priorities as the need arises, you can avoid getting stuck doing low priority tasks which do not help you make progress in your work.

9. Test Yourself

1.	Define the word "culture" and explain the difference between communal, individualistic and blended cultures.	8
2.	List four reasons why it is important to avoid stereotyping people.	4
3.	Explain how you can use the concept of a Johari Window to develop self-knowledge.	8
4.	List four guidelines for active listening.	4
5.	Explain why it is important for a facilitator to have good speaking skills, and provide six guidelines for speaking well.	10
6.	Explain the difference between closed-ended questions and open-ended questions,	4
7.	Discuss why it is important for a facilitator to be well-prepared for a presentation and for a group facilitation session.	4
8.	Provide six guidelines for presenting information using visual aids.	12
9.	Explain the difference between a compromising and collaborating style of dealing with conflict.	8
10.	Describe in detail one process you can follow to help resolve conflict.	16
11.	Name three planning aids you can use to help manage your time effectively.	3

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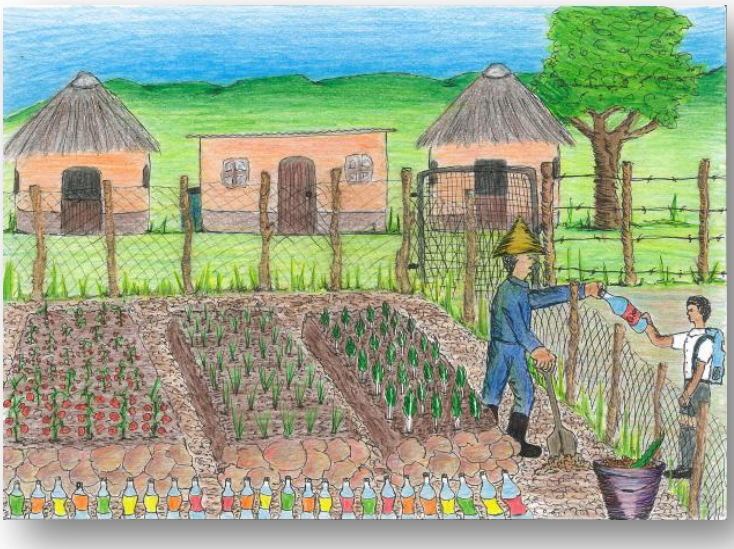


Chapter 4

Namhla Ndlame (artist)
"Store water whatever way you can!"

Enter the Community & Identify Opportunities

Contents

Outcomes

At the end of this chapter you should be able to:

- Gather information about an area using a range of external sources and resources.
- Enter a new community and establish an enabling environment by enagaging with community leaders and stakeholders in an appropriate manner.
- Establish a working relationship with interested community members (groups and individuals).
- Conduct a natural resource assessment.
- Facilitate a resource mapping exercise and a transect walk.
- Identify general and specific opportunities for water harvesting and conservation in an area.
- Schedule fieldwork and site visits with interested parties.

1. Introduction

There are many different ways one might arrive at working with a community or in an area. If you work for the government, a municipality or an NGO you might be stationed in one place and the community may be part of your area of responsibility.

You might also be from a more distant location, but be directed to work in a village for a specific implementation assignment. Sometimes, you may be invited into a new community because they have heard about what you are doing and are interested in working with you.

Whatever your initial reason for starting to work in a village, with a community or in an area, and whatever your field of engagement (e.g. health, education or agriculture), the PTID process can be used as a framework for engagement. Here, however, we will examine the PTID process specifically in relation to a WHC initiative. In this chapter, the first two stages of this process are explained in detail.

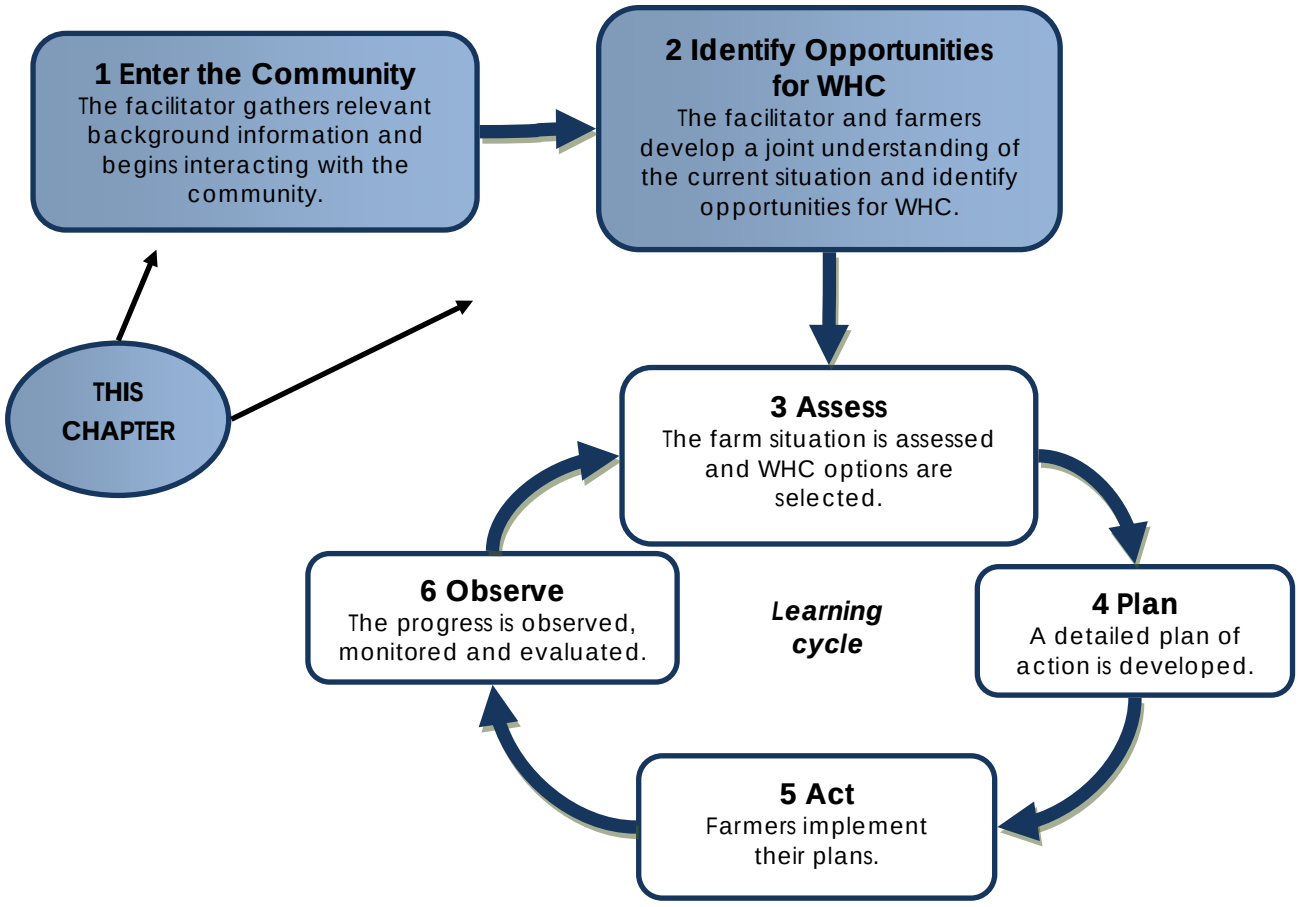
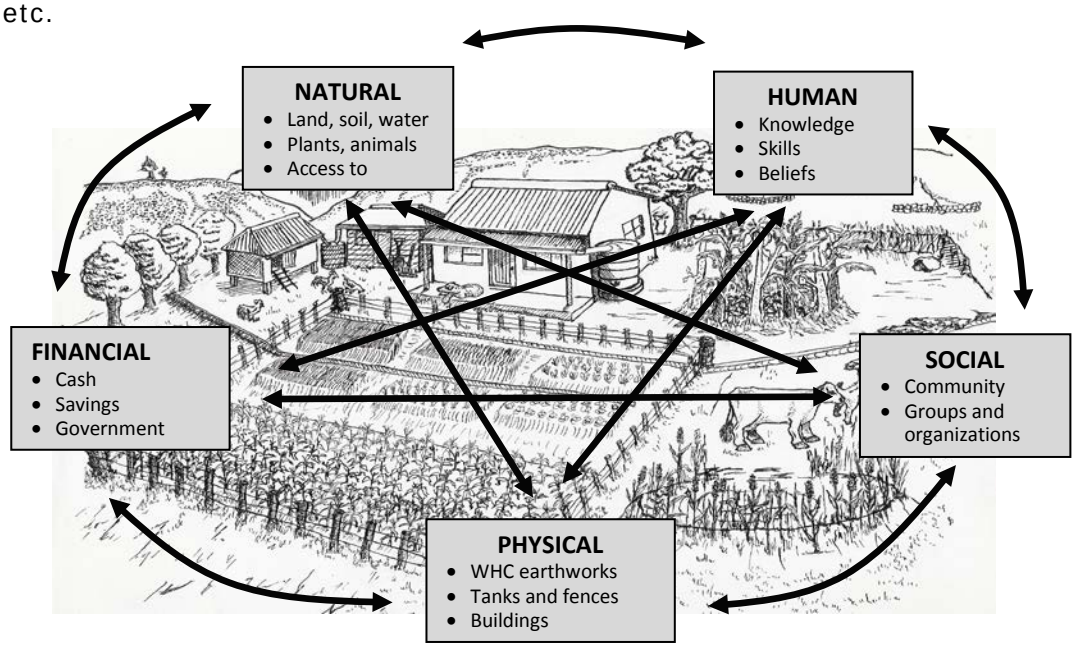


Figure 4.1 The PTID process.

Remember that the PTID framework is not a strict set of procedures that you have to follow rigidly, but rather a guideline for how you can proceed. As you work you might decide to combine some of the steps, or amend them to suit your working style or a specific context. You are encouraged to make whatever changes you think are useful, but we hope that throughout the process you will maintain the values and principles that underpin PTID.

2. WHC as Part of a System

A garden or farm is a productive system which aims to generate as much useful growth as possible, and WHC forms one part of this system. Other parts of the system include plants, animals, soils, water, people and their farming knowledge, implements, seed, manure, fertiliser, money, etc.



All of these parts are designed to interact with each other so that food, crops or meat can be produced. This means that to be of use, WHC methods need to be incorporated into a farm or garden *system,* as they will not result in production if they are implemented in isolation. This can be done by:

- working with local people who are *already farming or gardening* so that they can integrate WHC into their farm or garden systems, *OR*

- *partnering with an organisation* that focuses on crop production, and implementing both programmes in collaboration with each other.

3. Stage One: Enter the Community

Entering into a new community to establish a working relationship can be a challenging process. Local politics, different interest groups, community divisions, and a history of having to deal with outsiders are all factors which can add to this challenge.

It would be unusual to find a community or grouping in rural South Africa which has not had one or many people arrive with some or other "project" that has been defined by outsiders such as the government, an NGO or a municipality. Some of these people will have come with handouts such as seed, fencing, tanks, food parcels and irrigation systems. Others will have made empty promises, leading to disappointment or divisions within the community.

These previous experiences with outsiders may result in people expecting to receive something from you, or it may make them cautious about you being there. Two of the most valuable things you can do in this situation are to **be open about why you are there**, and to **be willing to take time and listen**. This will help develop trust, which is a process that also requires a positive attitude, hours of time, and repeated visits.

During Stage One, your main aims are to:

- Inform leadership in the area about who you are and why you are there.
- Identify local government departments or individuals who might be interested in collaborating with you.
- Identify local organisations which might be interested in your initiative, including NGOs, womens' groups, growers' groups, church groups and farmers' associations.

3.1 Meet with Traditional Authorities and Ward Councillors

In most parts of rural South Africa, apart from areas of commercial farmland, there are two systems of governance and authority that work side-by-side.

The **Traditional Authorities** (also called the Tribal Authorities) are the Chiefs and Headmen, who have responsibilities around land administration and who allocate plots for houses, gardens and fields. The Tribal Authorities also assist with conflict resolution within communities, and sometimes play a role in resource-use, such as forest or building material harvesting. Local Chiefs and Headmen usually like to be informed about what is happening and who is working in their area, so it is advisable to meet with the Tribal Authority early in the process to explain who you are and what you are doing.

The elected representative of the people is the **Ward Councillor**, who is elected every 4 years and sits on the local Municipal Council. Many ward councillors are active and influential and are often keen to see development activity in their area.

Note of Caution: Local politics are often divided and tensions may not be easily visible. Some parts of South Africa have a history of local political violence and ongoing factionalism. Be careful not to get intentionally or unintentionally involved in local politics by joining forces with one or other party. It is advisable to simply "meet and greet" TAs and Ward Councillors so that they know you are working in their area, and to rather engage in depth with people at village level.

When you meet with local leadership you should:

- Explain who you are and which organisation you work for.
- Outline water harvesting and conservation for home use, cropping and grazing.
- Explain your specific agenda, including which villages you will work with, and for how long (if you know).
- Get information about other organisations working in water or agriculture.
- Maintain your independence and diplomatically avoid getting drawn into acting for one or other party.
- Thank them for their support and offer to keep them informed of progress and outcomes.

3.2 Visit Local Government Departments

Local government officials have wide-ranging levels of interest and skills. There are often energetic individuals within local government who make good working allies. As they work within government, they might have access to useful resources such as vehicles, photocopy machines, digital cameras, and perhaps funding for some of the agricultural inputs that might be of assistance to farmers later on.

It is useful to visit local government departments to see what they are doing and whether this overlaps with your work interest, and to identify individuals with whom you might want to keep in touch as your work unfolds. A letter of introduction from your superior is often useful, even if you are employed by the government.

The three departments which might have an interest in what you are doing are:

- The Department of Agriculture, Forestry and Fisheries
- The Department of Water Affairs
- The Department of Health

Make sure to get information about any other organisations that are working in water or agriculture. If you know the area well you might already have this information, but if you are new to the area you should get the names of local organisations when you meet with Tribal Authorities, Ward Councillors and local government departments.

3.3 Be Aware of Diverse Groups and Competing Interests

A community is rarely united on all issues. Differences, some minor and others major, will challenge what you do with people and how long you work with them. As a development worker or extension practitioner you are not solely responsible for the outcomes of your initiative; instead, you play a role in a process which is primarily determined by individuals and groupings within the community. This can sometimes leave your best efforts frustrated by things which have nothing to do with you. You can work to resolve differences up to a point, but you must also be ready to accept outcomes which seem less than satisfactory to you.

Engage with interested groups and individuals

Local organisations are sometimes loose groupings, while others are well-organised and act as 'gatekeepers'. This can be constructive when their motivation is to minimise disruption from outsiders and to coordinate the activities of visitors. It is less constructive, however, when a small clique attempts to maintain control of everything that happens, usually for reasons of personal gain. To make sure that you are actually going to reach the people who might be interested in WHC, you need to listen to a *range of views* and try to understand some of the local dynamics.

Figure 4.2 An extension officer (far right) meeting with a group of community members.

When you meet with local individuals and groups you are starting to engage with the people you will be working with on water harvesting and conservation. Not everyone will be interested, but your aims once again are to:

- Inform people about who you are and why you are there.
- Introduce water harvesting and conservation and explain how it can contribute to improved access to water, increased production, and reduced risk of crop failure.
- Identify the appropriate groups or individuals with whom to start more detailed discussions and a planning process.

When there is limited funding

If you are not coming with funding, handouts or agricultural inputs, it may take some time for you to find people who are keen to experiment with water harvesting and conservation techniques. However, because these individuals are not motivated by funding or things they might get from you, their commitment is likely to be strong.

When financial resources are taken to communities

If you are coming as part of a well-funded initiative you will need to be aware that some people will be interested simply to see what they can get from you. To ensure that your initiative does not cause divisions or social harm, you should try to establish a transparent process for bringing resources into the community.

To assist with this:

- Ensure that the criteria for selecting participants or recipients are *discussed and agreed upon openly.*
- Choose criteria which balance the priorities of your organisation with those of the community. Criteria might include, for example: need; a demonstrated interest in gardening or farming; and an ongoing commitment to the process.

Being open and clear about what your intentions are, what you can offer and what you expect from people will be a sound footing for future interactions. Conflict, differences, disappointment and tensions are to be expected and should not be seen as failures, but as part of the process of engagement.

3.4 Gather Additional Information

At this initial stage it is useful to get climatic information for the area from publications, the Department of Water Affairs, or the internet if you have access to it. In particular, you want to get hold of **mean annual rainfall records** (available at http://www.environment.gov.za).

Other websites which have a variety of additional information which you may find useful at this stage include:

- www.wrc.org.za. The Water Research Commission site is the premier source of water related research information in South Africa. It has many valuable publications related to all sectors of water planning, management, treatment, and agricultural water use.
- www.agis.agric.za This site host the Agricultural Geo-Referenced Information System website (AGIS) which allows you to access agricultural, climatic, crop suitability and soils data. While information is free of charge, the AGIS website is heavily used and as a result is usually slow or difficult to access.
- www.environment.gov.za. Along with provincial rainfall maps, this site also has a range of environment-related publications and reports.
- www.dwaf.gov.za. The Department of Water Affairs site provides information on water policy, regulations and provision.
- www.arc.agric.za. The Agricultural Research Council website holds a range of infopaks, booklets, publications and database information on crop and animal production, although not all of these are free of charge.
- www.statssa.gov.za. This site contains demographic information for South Africa (e.g. population, income, expenditure, unemployment rates, etc.).
- www.idasa.org.za. This site has information on a range of social, environmental and development issues. There are digital books on a range of topics, including government structures and functions.
- www.treasury.gov.za. This site has information on budgets, expenditure, and plans for all the provinces and municipalities in South Africa.
- www.fao.org. The Food and Agriculture Organisation of the United Nations publishes information and agricultural statistics for many countries, including South Africa.

- www.ileia.org. The Centre for Information on Low External Input and Sustainable Agriculture has a wide range of agricultural information applicable to small growers.

activity 20

Internet Research

You are about to begin a WHC initiative in the area where you grew up. As part of your preparation, you want to find out the area's mean annual rainfall. You also want to look for other information which you may find useful (e.g. information on soils, population, government structures and departments, etc.).

1. Using the internet, go to www.environment.gov.za and find out the mean annual rainfall for the area. Write down this information and reference it correctly.

2. Go to a few other sites listed in Section 3.4, and look for any additional information which you would find useful at this stage. The information can be about the specific area (e.g. information on soil types or population density), or it can be more general (e.g. information on local government structures and how they work). Download *two* sets of information and print them out.

3. Write a short report to hand in to your lecturer. The report must contain the following:

    - Your name, the name of the specific area you researched and its mean annual rainfall (correctly referenced).
    - The additional information that you found (printed out and referenced), with a short paragraph attached to each set of information, saying why you found it useful.
    - A description of what you experienced and learned when doing this activity. (Was it easy to find relevant information? Which websites were the most and least useful? Which websites were the easiest and most difficult to use? How easy was it to download the information you needed? Which websites had information which you found useful or interesting? Did you have any problems accessing the internet or any specific websites? What were they? What did you do in response?, etc.).

Make sure that your report is presented neatly and clearly. Follow any additional instructions provided by your lecturer.

Time: 2 hours

3.5 Have Initial Meeting with Interested People

Once you have met with a range of people, including those from the main organisations within the community, you will have a clearer idea as to how you might collaborate around WHC. There is almost always someone in the community who will act as a *contact person.* These individuals are sometimes volunteers who are active local leaders, or they might be an NGO employee or someone in a formal leadership position. You can liaise with this person and set up a date for meeting with those people and/or groups who are interested in collaborating in a WHC initiative with you. There are at least two possibilities for the first meeting:

First meeting as an introductory session (perhaps 1 hour long)

1) Inform people who you are and why you are there.
2) Explain your organisation and general activities.
3) Outline WHC using the WRC DVD or a poster which gives a general idea of what WHC is and how it can improve food production.
4) Explain the ideas of joint collaboration and experimentation, highlight the value of local knowledge, and explain that you are coming to share knowledge and also to observe and learn.
5) Discuss and develop a process that can be followed to take WHC forward in the community.
6) Agree on the process and a date for the next session. This session will involve a morning or afternoon spent identifying WHC opportunities with interested individuals or groups (see Section 4: Stage Two).

First meeting as a half-day workshop

Alternatively, you could run the first meeting doing all of the above, but instead of Step 6 you continue the session and move on to Stage Two.

4. Stage Two: Identify Opportunities for WHC

The process now moves from general information gathering to *identifying needs and opportunities in relation to water and the productive use of land*.

4.1 Some Notes of Caution

(1) Remember that you are working with a group of people at this stage, and that while some of the members may farm in groups, many – if not most – will farm individually in their own gardens or fields. At no point in the PTID process should people be forced to farm together. Instead, they should be supported in whatever way they choose to work, whether it be alone or in groups.

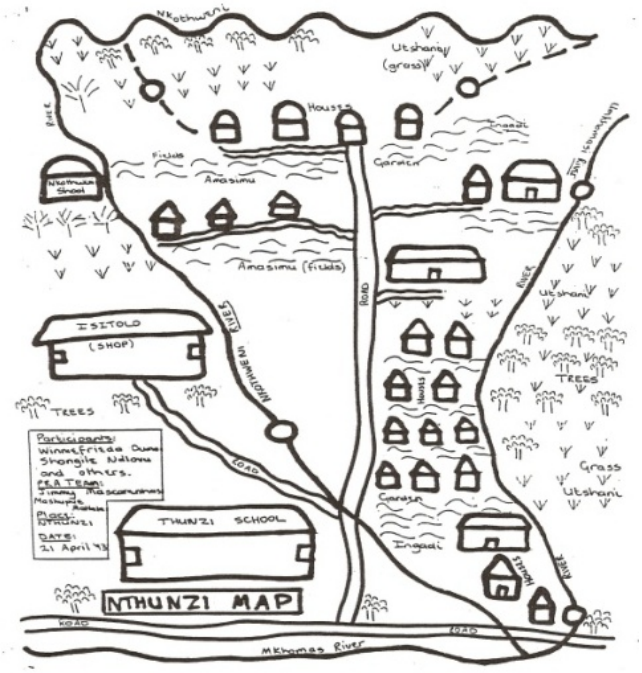
(2) Some needs-based participatory planning approaches engage people in an open-ended needs assessment, where they go through an extensive and time-consuming process of identifying all their needs, fears, hopes and aspirations in life, both as individuals and as a community. These typically include major and far-reaching social issues such as HIV/Aids, unemployment, poverty, security, and problems in relation to roads, schools, clinics, tractors, dipping tanks, fertiliser, fencing, etc. Getting people to go through a long process of listing problems and prioritising them, simply to ignore them at the end, is both irresponsible and a waste of everyone's time. It is inevitable that in discussing water, land and natural resource issues, other problems will be raised by local people that cannot be dealt with by a WHC or development facilitator, given the scope of their responsibilities and their likely capabilities and resources. In these cases you should remind people about the focus of the WHC work in relation to water and agriculture, and discuss what the right forum would be for discussing issues which are not relevant to the purpose of your work.

4.2 Conduct a Natural Resource Assessment

In the interests of transparency and honesty with people, we suggest that you make it very clear that your aim is to work with people in the area of *water harvesting and conservation*, and to use this area as a *boundary for the natural resource assessment*. The initial assessment aims to identify the *location* and *characteristics* of the two natural resources most relevant to WHC, namely *water* and *land*. In identifying these resources, everyone (and particularly yourself as the outsider) will get a better understanding of the resources that people have. Together you will then need to explore opportunities for WHC that may exist in relation these resources. Note that opportunities can exist in gardens, fields or on grazing lands, or within new initiatives.

Two tools that are particularly well-suited for conducting land and water resource assessments are ***resource mapping*** and ***transect walks***.

Resource Mapping



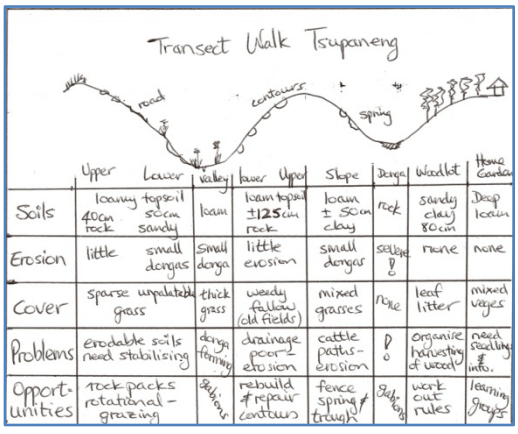
Community members discuss the area and draw a map of it. The map shows the physical features of the area as well as its resources (which could be natural and/or physical).

Resource mapping:

- provides an overview of the physical features and natural resources of an area;
- can be used to identify resources that are scarce or abundant;
- stimulates discussion on resource types and how they are used;
- promotes the sharing of local knowledge;
- provides a good starting point for an environmental or resource assessment; and
- can be used to help monitor and evaluate changes in the use of natural resources over time (from present to future, or from past to present).

Transect Walk

A transect walk is an observational tool that provides a good overview of the range of resources and features in an area. One chooses a line or route that roughly represents the area, and then walks along this line, observing and noting the location and distribution of different resources and features in the area. Walks can also meander or follow a particular feature of the landscape, such as a river or footpath.



After the walk, a transect diagram is drawn and the different features and resources that were identified are recorded in a matrix below the map.

Refer to Chapter 7 and do the following:

1. **Read the introduction to the chapter, the general guidelines for participatory tools and the guidelines for introducing specific tools.**

2. **Read the detailed guidelines for Tool 1: Resource Mapping.**

activity 21

Make a Resource Map

In small groups, draw a resource map of a specific area. To do this, refer to the instructions provided in Chapter 7, and follow all the steps that are applicable for completing this activity successfully. (For example, you can leave out Steps 1 and 2 because you do not need to introduce the concept to anyone or explain why you are doing the activity.) Make sure that you have all the materials that you need before you start.

After you have completed this activity, spend some time reflecting on it as a group and write down your answers to the following questions:

- Did the group understand and follow the instructions correctly?
- What worked well, and why?
- What didn't work well, and why?
- What part of the activity did you enjoy the most, and why?
- What part of the activity did you enjoy the least, and why?
- What would you do differently if you had to do this activity again?
- What did you learn from this experience?
- What would you have to do differently if you were facilitating this activity with a group of community members? Be specific.

Present your resource map to the rest of the class and share your answers to the above questions.

Follow any additional instructions which your lecturer may give you for this activity.

Time: 2-2½ hours

Refer to Chapter 7 and do the following:

Read the detailed guidelines for Tool 2 – Transect Walk.

activity 22

Do a Transect Walk

In small groups, do a transect walk of a specific area. To do this, refer to the instructions provided in Chapter 7 and follow all the steps that are applicable for completing this activity successfully. (For example, you can leave out Steps 1 and 2 because you do not need to introduce the concept to anyone, or explain why you are doing the activity.) Make sure that you have all the materials that you need before you start.

After you have completed this activity, spend some time reflecting on it as a group and write down your answers to the following questions:

- Did the group understand and follow the instructions correctly?
- What worked well, and why?
- What didn't work well, and why?
- What part of the activity did you enjoy the most, and why?
- What part of the activity did you enjoy the least, and why?
- What would you do differently if you had to do this activity again?
- What did you learn from this experience?
- What would you have to do differently if you were facilitating this activity with a group of community members? Be specific.

Present your transect diagram to the class and share your answers to the above questions.

Follow any additional instructions which your lecturer may give you for this activity.

Time: 2-3 hours

4.3 Plan for Stages 3 and 4

The natural resource assessment provides the necessary platform for Stages 3 and 4 of the PTID process.

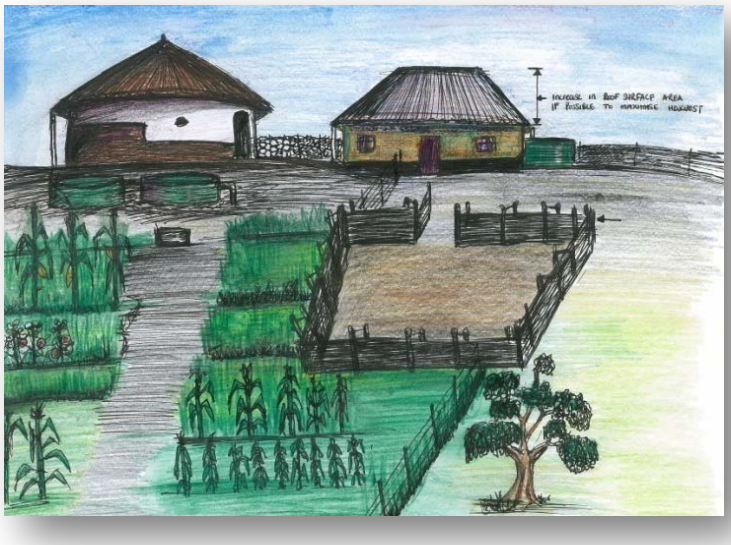
Once the land and water resources in the area have been identified, some general opportunities for WHC can also be identified, as well as more specific opportunities for WHC, for example with interested groups and individuals in their gardens, fields or grazing lands, or within new initiatives that people may want to start.

At this point, you as the facilitator need to know *which* people (groups and/or individuals) are interested in moving towards a more detailed assessment and planning process in relation to their particular farming, grazing or gardening situation. You can ask this directly of people, or the process may naturally lead to certain groups or individuals expressing their interest in continuing to work through the process with you.

Once interested parties have been identified you can draw up a schedule or plan for future fieldwork and site visits. Your plan should be developed in collaboration with the interested parties so that time requirements and individual availability can be discussed and negotiated, and suitable arrangements can be made. Remember that you should always try to be flexible and accommodating, and that you may need to adapt your plan as you go along.

5. Test Yourself

1.	Describe two ways in which WHC methods can be incorporated into a farm or garden system.	4
2.	Explain the difference between Traditional Authorities and Ward Councillors.	6
3.	Outline the steps that you can follow when your initial meeting with interested community members is conducted as an *introductory session*.	6
4.	Explain why you should avoid conducting an open-ended needs assessment with community members.	4
5.	State the aim of conducting an initial natural resource assessment.	4
6.	Outline the steps involved in a resource mapping exercise *or* a transect walk.	14



Chapter 5

Siphiwo Matshabani (artist)
"To maximise the harvest – use your roof."

Assess and Plan

Contents

Outcomes

At the end of this chapter you should be able to:

- Work with groups and individuals in the field.
- Conduct an assessment field day with farmers.
- Assess a garden, field or grazing area for WHC options.
- Select WHC options that are appropriate for a specific site.
- Help farmers develop a detailed farm or garden plan for WHC implementation.

1. Reminder of Stages One and Two of PTID

In the first stage of the PTID process you will have conducted some research about the area and community, and then introduced yourself to community leaders. You will also have identified other organisations working in the area, and hopefully have met with their representatives to see if and how you might collaborate.

In the second stage of the process you will have met with village groups, and made contact with people from the community who showed interest in the WHC initiative. These could be existing gardening or farming cooperatives, groups, associations, or just a collection of interested individuals. At an initial meeting with them you will have exchanged ideas around WHC. Using participatory tools such as resource mapping and transect walks, you will have gained further insight into what land and water resources people have, and what general opportunities there are for WHC. People will then have indicated their interest in moving towards a more detailed assessment and planning process in relation to their particular farming, grazing or gardening situation.

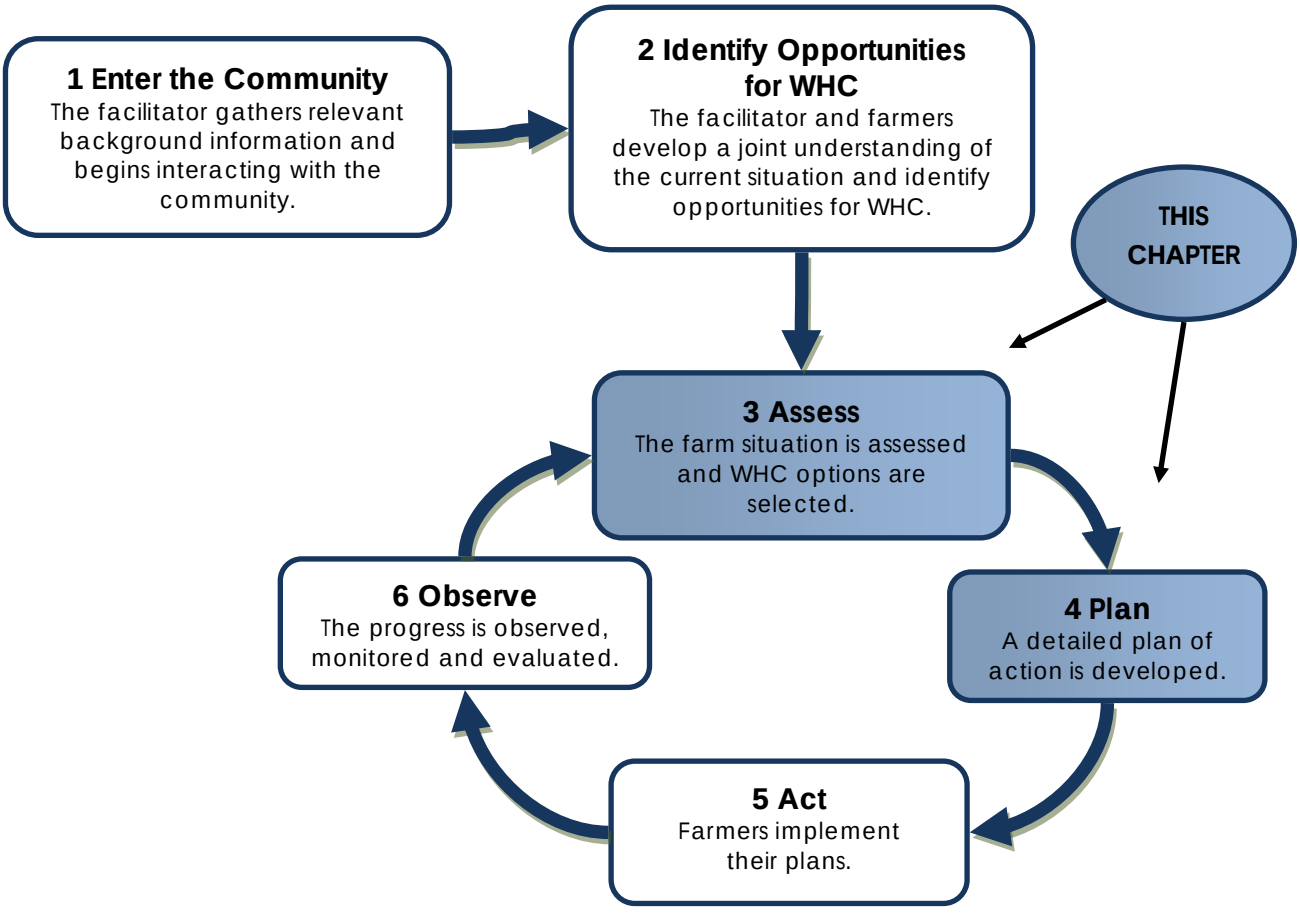


Figure 5.1 The PTID process.

2. Stage Three – Assess the Farm Situation

2.1 Balancing New Information and Local Knowledge

The *assessment* and *planning* stages of a participatory learning process such as PTID always overlap to some extent. One is really looking for *things to try* and then imagining, or visualising, what would happen if you implemented them in one way or another. The options that are thought up are based on the opportunities presented by the site itself, as well as the interests and resources of the person who will implement the method/s (i.e. the farmer). Assessment and planning thus involve a process of discussing "what ifs" (e.g. What if I tried this? or What if you tried that?) until a decision is made as to what will be done.

As a facilitator you need to **work sensitively** and avoid dominating this process. You are bringing new ideas and information about WHC into the discussions, but you want to be sure that you also learn from people as they contribute their own ideas and local knowledge to the discussion, and ultimately make their own plans and decisions. This should all be done in the spirit of experimentation – trying something sensible and seeing what happens.

The assessment and planning stages are based on providing relevant new information to people, and helping them consider what this information means in light of their own knowledge. The **assessment** includes:

- **The local people (farmers and gardeners) learning about WHC** as they get new information from you about different methods. This includes why and how to implement the methods, and the likely time, benefits, costs, effort and tools that are required.
- **The facilitator (yourself) learning about local realities** that may impact on the different WHC techniques, and about existing **local solutions (innovations)** that could be used to modify and improve on the techniques.
- **Identifying, through discussion and the sharing of ideas, things to try (i.e. experimentation).** The implications of trying these things – both in terms of their technical aspects and in terms of the local situation – will best be understood by sharing perspectives and experience. For example, constructing a diversion furrow to channel flow into a garden may be technically simple, but may not be welcomed locally if the furrow crosses a piece of land that the community does not want disturbed or used (e.g. a burial ground, or the site of a future school building). Local knowledge extends much further than this simple example, and often relates to complex aspects of local culture and knowledge about natural cycles.

2.2 Working with Groups and Individuals in the Field

The way fieldwork unfolds in each village will be guided by how community members are organised and what they want to do. Drawing up a schedule or plan for fieldwork and site visits was discussed at the end of the last chapter. Remember that you need to be flexible and accommodatory, and that you may need to adapt your plan as you go.

Individual farms or gardens for cropping

Some people farm or garden independently and on their own land, although they may collaborate with others to share information, buy inputs such as seedlings, or obtain new information. These individual farmers will need to develop their own assessments and action plans for their farms or gardens. You can work with these farmers individually as much as time permits, and in small groups when individual work is not possible.

Figure 5.2 An individual farmer.

Group ventures for cropping

There are situations where people work collectively and undertake gardening or farming as a group. Collective ventures, where everyone works and shares the crops or profits, often face institutional challenges. It is common that some members are more motivated and active than others, but share the benefits equally. Your task is to support and work with people in whatever arrangement they prefer, but be aware that groups can present specific challenges. When you work with a group or collective venture, decisions will need to be made by the group, in keeping with their constitution or informal rules. These may not be clearly defined, so you must fully explore and understand their decision-making system so that it is not bypassed. This usually means allocating extra time to the group, because group decision-making often takes longer than individual decision-making.

Figure 5.3 A WHC Group at Majola School, Eastern Cape.

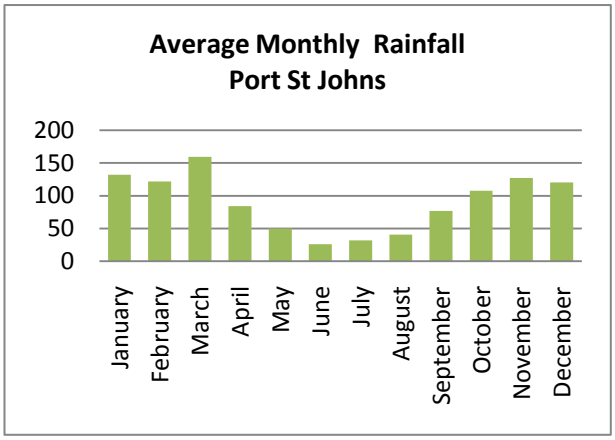
Communal grazing land

Communal grazing is a shared resource, usually with open-access for the whole community. Anyone can use it as they need, but there are some communities that have resource management plans in place which limit access and use. Decisions around WHC interventions in communal grazing areas will need the involvement of the appropriate committee (if one exists), and probably also the Tribal Authority. It would be wise to take guidance from local people and include key groupings from the start of any WHC intervention on communal grazing land.

Figure 5.4 WHC for grazing requires community involvement.

2.3 A Rough Outline for a Site Assessment

1. Make sure you are prepared.



- **Rainfall**. You should know the rainfall of the area.
- **Soils and slopes**. From the natural resource assessment you should have a sense of soil depths, how easily erodible the soils are, and the likely slopes that will be found.
- **Gardens, fields or grazing**. Based on your discussions in Stage 2, you will have been told what kind of agricultural activities people are interested in, and where these might be located.
- You will have **observed** if there are any granite domes, or if there is a possibility for floodwater harvesting from a nearby river, although neither of these methods is widely applicable across South Africa. When they are, however, they can have great value to farmers so it is important to always consider their possibility.

The above information will enable you to determine which WHC methods are applicable to the area (you can refer to the WHC Technical Guide to do this). You can make copies of these methods from the farmers' handouts (which form the third component of this learning package). Remember that you are trying to provide farmers with *relevant* information so that they can apply their own knowledge to the situation and make their own implementation decisions.

2. Work from general WHC ideas to a site-specific plan.

Whether you are working with a number of individual farmers in their own gardens or fields, or with a cooperative group of sorts, it makes sense to discuss general WHC planning issues in *groups*. This will save time and avoid information having to be repeated over and over. It will also mean that a wider group of people can share their initial ideas, which will benefit everyone.

You can begin by providing the group with further information about the WHC methods, and by discussing the principles of WHC. Encourage farmers to do the following:

- Think about where the water runs when it rains.
- Intercept the flow, starting at the top of their land and then working downhill.
- Spread the flow of water using contours, so that it slows down and infiltrates the soil.
- Start small and simple with what they can do themselves.

- Plan an overflow route.
- Maximise living ground cover, and use mulch.
-

Gardens. The following WHC methods are applicable to *all* gardens: mulching, greywater re-use, fertility pits, trench beds and swales. You can outline these methods by going through the farmers' handouts in order to start the process of thinking about options.

Fields. If you are working with farmers in fields, consider what can reasonably be tried as a small experimental intervention. Refer to the Technical Manual for guidance on methods that can be used.

3. Visit some gardens or fields with the group.

Once you have shared some technical information and people have a good understanding of the suggestions you have made, you can visit some gardens or fields and discuss ideas and options as a group. Start with the question: **"Where does the water run when it rains hard?"** Listen to the answers. Find out what people think about diverting water, and ask how they might get it to infiltrate. Ask about their views on other WHC methods which they have either seen in the handouts or are using themselves, and discuss these options with them. Note that at some point, you will need to assess each specific site.

Figure 5.5 Short thunderstorm runoff on rocky ground.

4. Visit other places where people are using WHC methods.

It is extremely useful for people to see WHC methods functioning in a real farm or garden situation. Organising a "cross-visit" to a farmer who is using WHC techniques successfully will stimulate ideas and give people a much deeper understanding of what WHC is all about.

You can organise a taxi for the cross-visit if you have sufficient funds, or farmers could use public transport. Networking with other organisations involved in WHC can give you ideas as to where you might visit. Over the last five years there have been many WHC interventions in the Free State, Limpopo, Eastern Cape, Mpumalanga and KwaZulu-Natal, so you can contact organisations which were involved to find out more information.

Likely organisations include:

- Department of Water Affairs
- Department of Agriculture and Forestry
- UKZN Centre for Adult Education
- Independent Development Trust
- AWARD NGO
- PROLINNOVA NGO
- Mvula Trust
- Water for Food Movement NGO
- Wildlife and Environmental Society of South Africa (WESSA)
- Rural Integrated Engineering
- Lima Development NGO
- Umhlaba Consulting Group
- Agricultural Research Council (Glen Institute at Bloemfontein)
- Water Research Commission
- Permaculture organisations or NGOs

5. Think about monitoring and evaluation.

At this point, the farmers will need to think about the outcomes they are expecting, and how these might be measured. These things are important because they will influence *what* the farmers do in relation to WHC, as well as *how* they do it.

For example, if a farmer wants to compare a new WHC method (such as trench beds) with their original way of farming or gardening, there would be no point implementing the new method only, because later on there would be nothing to compare the results of the new method with. It would be better for the farmer to implement both the old and the new methods on two similar plots at the same time. This way, the outcomes of both methods can be compared *as long as the farmer has done exactly the same things on both plots throughout the growing season* (i.e. planted the same seed or seedlings, watered the same, mulched the same, and weeded the same).

This approach, which is called "paired experimentation", is a useful way of setting up action plans so that results or outcomes can be monitored and information can be obtained. In Chapter 6 we will look at the monitoring and evaluation process in much more detail.

3. Stage Four – Develop a Plan of Action

3.1 Draw up a Detailed Farm or Garden Plan

A plan of action needs to be developed for each site. To do this, you first need to help the farmer/s conduct a detailed site assessment. Assist farmers with this by doing and/or asking the following:

a) Assess the **soil** types (for this you can do a bottle or sausage test).

b) Measure the **slope**.

c) Identify WHC methods that are suited to that specific site (taking into account the slope, soils, and rainfall, and the reason/s for harvesting water).

d) Ask: What are you doing already? Is there a small intervention that you can add to this?

e) Ask: Where does the **water** run when there is hard rainfall? (Answers are likely to include: compacted areas in front of houses, roads, drains, paved areas, steeper slopes, rocky slopes, rock domes, netball courts, parking areas, school grounds, etc.)

f) Look at the **roofs**. Ask: Is there excess runoff from existing tanks (if any)? How can excess roofwater be channelled into a new or existing growing area?

g) Ask: Can you bring water into the garden/fields using diversion furrows? (Farmers will need to think about things such as land ownership, future land use, competition for runoff water when more than one person wants to use it, etc.).

h) Discuss the WHC methods that could be tried. Give the farmers relevant information and let them think about the implications, make suggestions, and arrive at their own decisions about what they want to try.

i) Work through each method that could be used so that farmers have enough information as to how much work each method will take, what it will look like, and how it should be done. You can do this by going through the farmer handouts with them.

j) Mark out some contour lines in the garden for swales, trenches or tied-ridges, or mark out contour lines for cut-off furrows outside the garden if farmers want to try this.

k) Be involved and share ideas, but make sure that the farmers make their own decisions and modifications.

3.2 Record the Action Plan

You can end the planning process by helping farmers mark out the methods they are going to implement (using, for example, stakes and string). Alternatively, you can suggest that farmers draw a plan of their house and garden or field, and show on the plan the methods they are going to implement.

As the facilitator, it would be a really good idea for you to draw up a plan of each site (i.e. garden or field). This will remind you WHO each person is, WHAT methods they have chosen to implement, and WHEN they started.

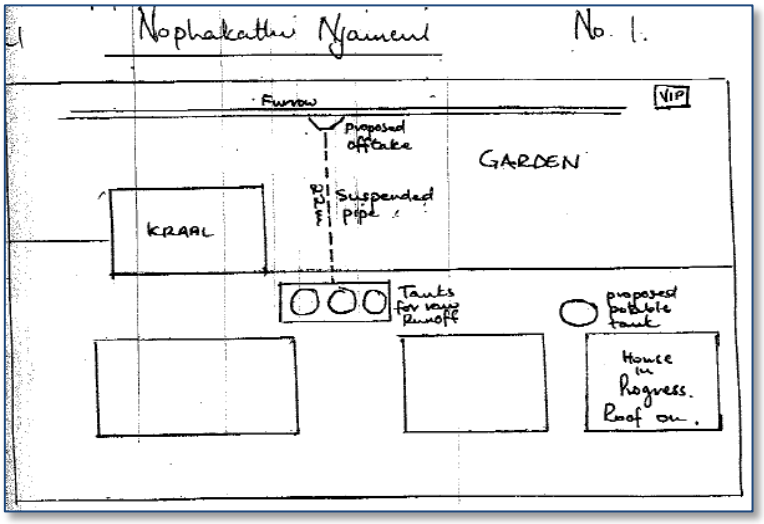


Figure 5.6 A facilitator's sketch plan of WHC at a homestead.

If you work for a government department or for any organisation with formal reporting requirements, you need to make sure that you follow these requirements by writing your reports in the specified format, and in accordance with all organisational standards and procedures.

Alternatively you can use a standard report format (see Chapter 7 PTID Tools).

activity 23

Develop a WHC Plan for a Garden

Complete this activity with a partner.

1. Select a site which you can use for this activity. The site must have a vegetable garden, but the gardener (who could be a friend, family member or farmer) must not be using more than one or two water harvesting and conservation methods.

2. With your partner, conduct a thorough site assessment. Make sure that you follow all of the guidelines that are provided in this chapter (see Sections 2.3 and 2.4).

3. Select at least two WHC methods that are appropriate for the site and that are not already being used by the gardener.

4. Draw a clear and detailed plan of the site that shows exactly how the methods you have selected can be incorporated into the system.

5. Compile a report which includes the following:
   - 5.1 Your names, the date, and the title of this activity.
   - 5.2 A brief description of the site, the name of the person it belongs to, why you selected it for this activity, and a description of any WHC methods currently used on it.
   - 5.3 A *detailed description* of your site assessment. List everything that you assessed and describe how you did so and what the results were.
   - 5.4 Your site plan.
   - 5.5 Your specific reasons for selecting each of the WHC methods you have included in the plan.

Make sure that you follow any additional instructions given by your lecturer.

Time: 3 hours

4. Test Yourself

1.	Discuss three things that an assessment process includes.	9
2.	Discuss some challenges you might face when working with a farmer group.	4
3.	Describe eight things that you may need to do to help someone arrive at a detailed plan for their farm or garden.	16
4.	Explain two ways in which you can end a planning process with a farmer.	4

Chapter 6

NY Bonkolo (artist)
"Water is wealth."

Act and Observe

Contents

Outcomes

At the end of this chapter you should be able to:

- Facilitate a monitoring and evaluation process with individuals and groups.
- Outline the stages of a Participatory Impact Monitoring process.
- Explain the difference between individual, group and external monitoring.
- Develop indicators for a monitoring and assessment process.
- Measure the impact of an intervention in an appropriate way.
- Evaluate information and decide on changes to be made.
- Assess a monitoring system.

1. Review of Previous Stages

During Stages One and Two you will have spent time with people to build relationships, work out what interest they have in WHC, and identify existing opportunities. WHC methods that are suitable for the area will have been selected, and farmers will have decided what they want to try in their gardens, fields or grazing lands.

In Stages Three and Four you will have worked with people to identify what they are *hoping to achieve* by implementing WHC methods within their farm systems. Action plans for implementing the WHC methods will have been formalised, either by marking out excavation lines in the gardens or fields, or by drawing site plans.

In Stages Five and Six, farmers will now start implementing their plans and monitoring what they are doing. For this, a *monitoring plan* is developed and used to observe the changes or results that take place once the method/s have been implemented. This plan is developed around the *expected outcomes* of the WHC interventions. The observations are then analysed and evaluated to help decide how things can be improved upon in the future.

In this chapter, we will examine the monitoring and evaluation stages in detail.

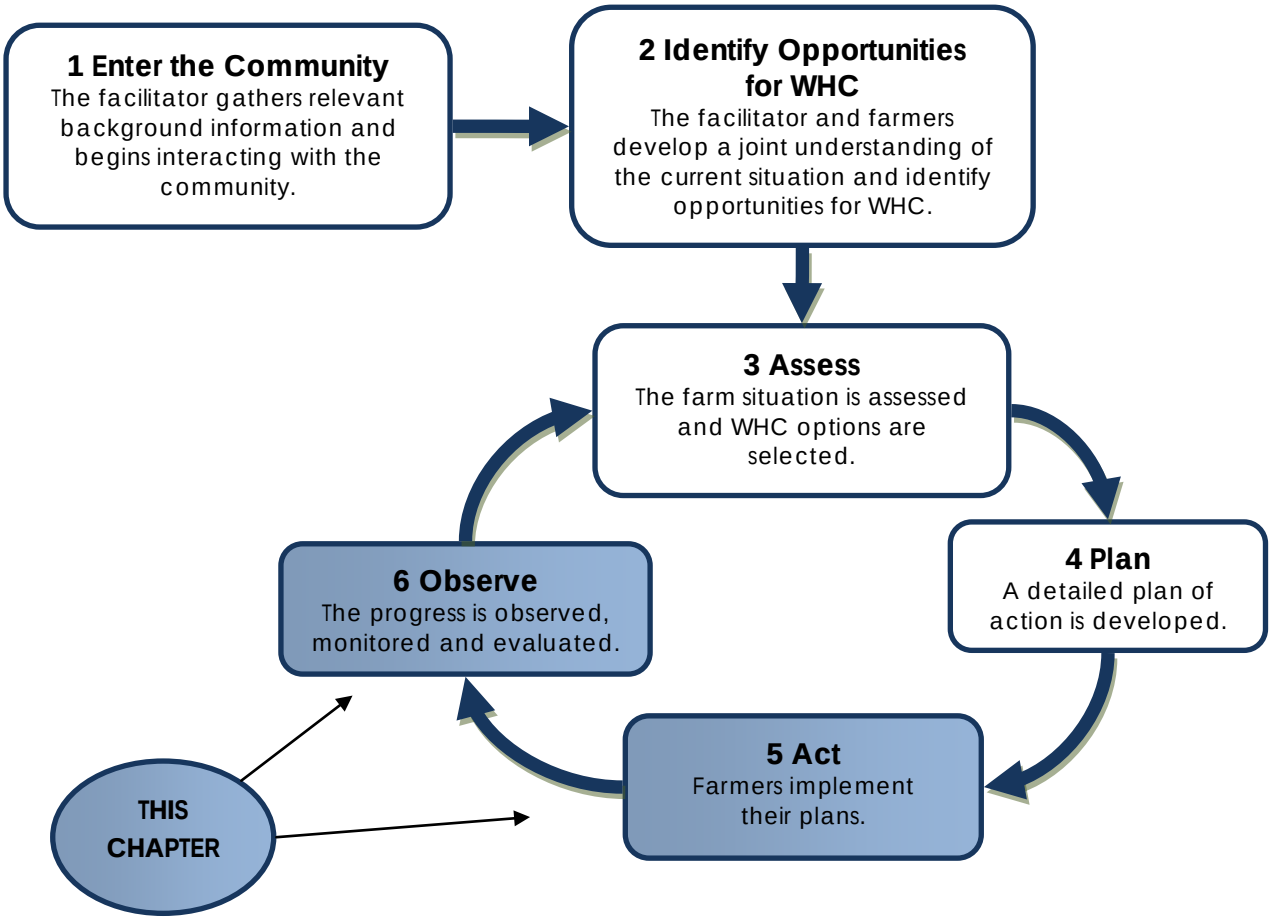


Figure 6.1 The PTID process.

2. Action and Earthworks

The implementation of the WHC methods is mainly the responsibility of the individuals or groups. Your role as a facilitator is to be available for queries, to provide encouragement, and to share ideas.

You might also need to help mark out contours with a line-level or A-frame, or help modify plans if people realise, once they have started working, that changes are needed.

Figure 6.2 Farmers implementing their selected WHC methods.

3. Understanding Monitoring and Evaluation

3.1 A Systematic Way of Observing and Reflecting

The monitoring and evaluation process enables farmers to plan better for the next growing season. The process helps people identify *what was learnt* so that they have a clear understanding of what worked and what didn't during the experimenting cycle. This enables them to make changes that will improve their WHC system. These stages are thus the *key* to the ongoing action–learning cycle.

Observing	Monitoring is really just the same as *observing*, but it is targeted at specific things that we want to know. To provide useful information that can be analysed, the monitoring system must be developed around *what people are hoping to achieve* by experimenting with WHC.
Reflection	Evaluating involves analysing the information that is obtained from the monitoring process. It is the *critical point of reflection* in the action-learning cycle. We stop and think about what happened and why, and this allows us to make changes and get better results.
Systematic	Observing what happens in a *systematic* way ensures that relevant information is collected at the right time.
Innovations	Part of the monitoring process involves looking for *innovations* to adopt (i.e. clever and new ways of doing things) so that methods are modified or made more suitable for local conditions.

3.2 Guideline for Monitoring and Evaluation with Farmers

Monitoring and evaluation can be used to check on progress against a plan of action, or as a way of getting information about a particular method to inform the learning process.

Monitoring what happens in a field or garden in relation to a WHC intervention is directly useful to farmers. It helps them to identify what has and hasn't worked, and to change aspects of the system in order to get better results. The monitoring and evaluation process in this guide is based on Participatory Impact Monitoring (PIM), which can be divided into the steps shown below.

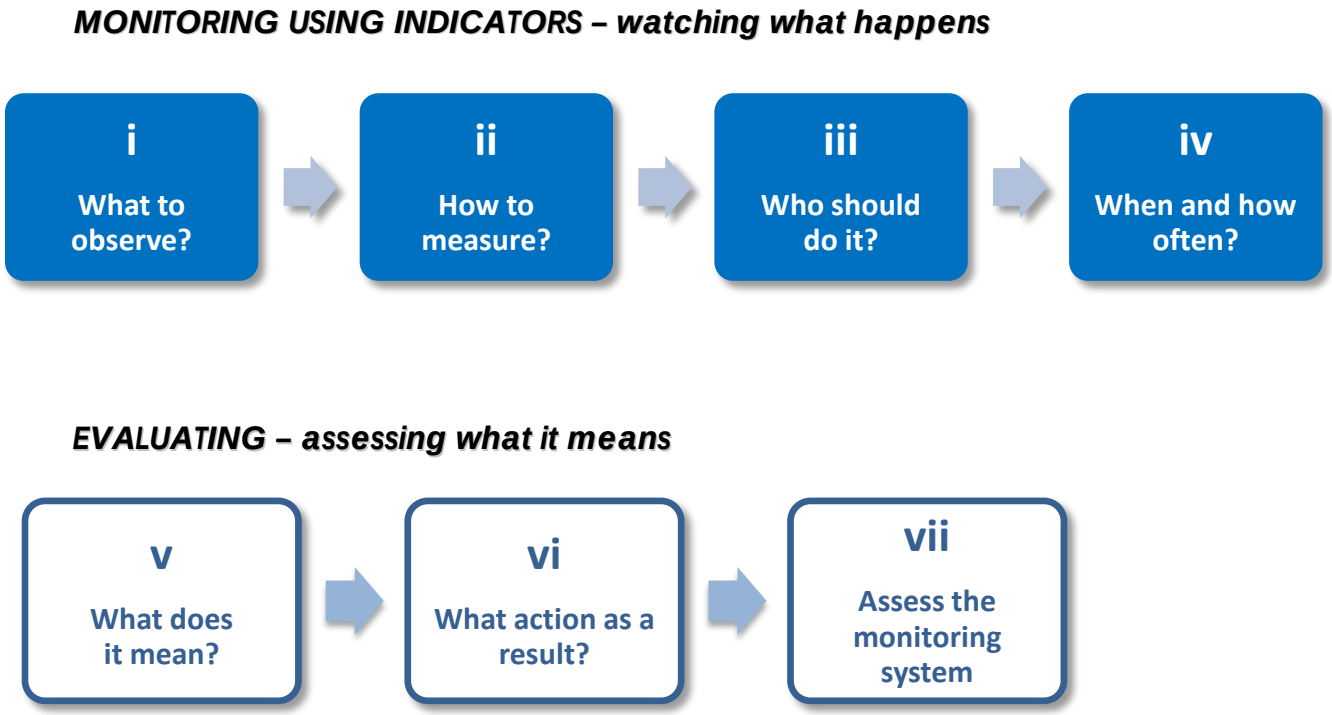


Figure 6.3 Steps in the monitoring and evaluation process.

3.3 Monitoring and Evaluation Start-up Workshop

You will need to organise a workshop to run through the monitoring process with farmers. During this workshop you can work through steps i to iv of the process (see Figure 6.1) so that farmers can learn how to identify and prioritise *what* they want to observe, and how to implement their monitoring plans in a practical way.

At a later stage – probably after a couple of months – you will need to hold a workshop on evaluation. During this workshop farmers can examine and analyse the information that they have collected, and decide how they can use it to improve their farm systems.

3.4 Who Does the Monitoring?

Before we look at Participatory Impact Monitoring in detail, it is useful to understand *who* can monitor, and *why*.

Individual monitoring. This can be done by individuals to get information that *they alone* are interested in. Individual monitoring can help farmers understand their farm systems better, and can enable them to continually improve on what they are doing. It can also help farmers stay motivated. Individual monitoring is always done by the individual him- or herself.

Group monitoring. There are two situations where group monitoring can apply. The first situation is when a group of people farm or garden together cooperatively (i.e. as a unit). In this case, monitoring helps the group keep track of what is happening as they go along. All of the steps that are taken and decisions that are made are done collectively.

The second is when individuals have their own gardens or fields, but *also* organise themselves into a group for training sessions and information-sharing (and sometimes so that they can purchase agricultural inputs together). In this situation, the *group* can monitor the fields or gardens of individual members. This can be done in a rotational way (i.e. the group can visit and monitor some gardens or fields at one time, and other gardens and fields at another time. The group can use indicators that they decide on together to evaluate the progress of individual members. This can be a fun and motivating exercise. It also creates a time when people can share ideas informally and generate solutions to problems that are observed.

External monitoring. This is typically done by an outside organisation to track progress within a programme, or to collect information for research purposes. The same techniques that have been described in this manual can be applied to external monitoring. However, the indicators for this type of monitoring would be different as they would be based on things that the outside organisation wants to monitor.

Figure 6.4 A researcher involved in external monitoring.

4. Indicators

4.1 Deciding How to Experiment and What to Observe

i

What to observe?

Indicators are *those things which we decide to observe* and then use to understand what has happened. One of the challenges with information-gathering is that one can end up collecting too much information, or information which is of little use for the evaluation. It is therefore important to think about *exactly what you and the farmers want to observe*, to define the indicators clearly, and then to work out how to collect information about the selected indicators.

One way of developing indicators is to help farmers clarify their *expectations or fears* in relation to their WHC interventions. The farmers would then think about what needs to be observed and measured to see if these expectations and/or fears have occurred.

Table 6.1 Example of expectations and fears as the basis for developing indicators.

Expectations from the action	Fears about what might happen
We will get more food from trench beds than from our conventional garden.	Greywater causes the plants to get sick.
Tied ridges in the field will give us higher yields.	There will be more mosquitoes because there is more water around the household.
All runoff will be contained in the swales.	Neighbours will want to use road-runoff once they see the garden improves, and there will be competition for the water.
Our family will have enough food.	Tanks collecting water from overland flow will fill up with mud.

Once the expectations and the fears have been clarified they can be ***prioritised***, using tools called ***scoring*** and ***ranking*** (refer to Chapter 7 – Tools for PTID).

It is often not practical to monitor everything on the list because this will take too much time. Farmers must decide what is most useful and important to monitor, and should use these as the focus of their observations.

After the expectations and fears have been prioritised and the most important ones have been selected, a set of *indicators* must be developed. These indicators will define the exact things that farmers must observe and measure.

`

4.2 How to Observe and Measure

Developing useful indicators requires careful thought. You can facilitate this process with a group of people using a *brainstorm* (see Chapter 7 – Tools for PTID). A brainstorm calls for imagination and creative thinking, and can be a fun and lively way of formulating and selecting appropriate indicators.

During the brainstorm, farmers need to think about how their selected expectations and fears can be *measured* and *observed*. This involves brainstorming different types of *evidence* that will show whether or not certain things have happened. We will look at some examples of indicators in Section 4.4, but first we need to examine *measurements* in some detail.

Direct measurement aims to get *factual information* about what is happening. This is done by observing and recording something of interest without comparing it to anything else. It is a good way to keep track of what happens in or to a specific part of a system. Direct measurement can be applied to any situation of interest.

Some examples of direct measurement:

- Farmers record the price of vegetables (for selling or buying) for the duration of a year, to see how the prices change from month to month.
- Farmers record how many meals they have in a month which include fresh vegetables.
- Farmers measure the level of water in their tanks (e.g. daily, weekly or monthly).

Comparative measurement is used to *compare two or more things*, such as two gardens, one in which WHC methods are used, and one in which they are not used.

Certain expectations and fears will call for direct measurement, while others will call for comparative measurement (see Tables 6.2 and 6.3 for examples).

Table 6.2 Examples of expectations and the type of measurement needed.

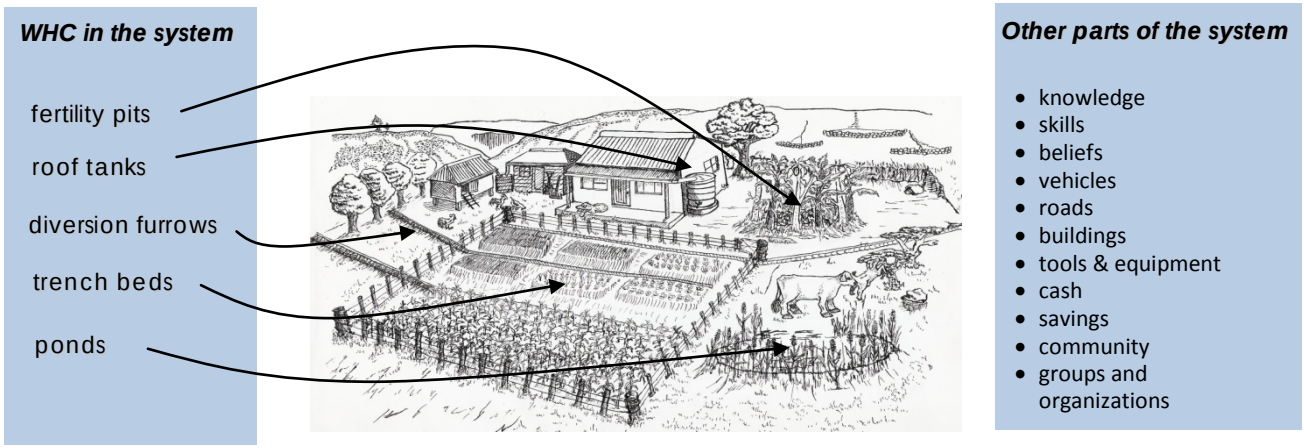
Expectations from the action	Type of measurement needed
We will get more food from trench beds than from our conventional garden.	*Compare* yield from trench beds with yield from conventional garden.
Tied ridges in the field will give us higher yields.	*Compare* yield from tied ridges with yield from conventional garden.
All runoff will be contained in the swales.	*Direct measurement – observe* whether it happens.

Table 6.3 Examples of fears and the type of measurement needed.

Fears about what might happen	Type of measurement needed
Greywater causes the plants to get sick.	*Compare* plants where greywater is used with plants where greywater is not used (all other variables must be the same for this comparison to be valid – see "pairing" below).
There will be more mosquitoes because there is more water around the household.	*Compare* (i.e. ask: Are there more mosquitoes after the water harvesting intervention than there were before?).
Neighbours will want to use road-runoff once they see the garden improves, and there will be competition for the water.	*Direct measurement – observe* if competition for water happens.
Tanks collecting water from overland flow will fill up with mud.	*Direct measurement – decide what 'full of mud means" and observe* if tanks fill up with mud.

Production systems and experimental 'pairing'

Remember that a WHC intervention is just one part of a complex agricultural system that aims to produce crops or grazing, and there are many other factors that play a role in determining the quality and quantity of the overall agricultural product.



When you measure impact, you will usually be measuring something that is the result of a combination of factors. The yield that you get from a vegetable garden, for example, can be influenced by a number of things, such as the seed that you choose, the amount of time that you spend tending to the garden, and the amount of compost or fertiliser that you apply. The only way to measure the direct impact of a WHC method on a plot is to conduct a comparative experiment. This involves setting up two plots – one on which the WHC method is implemented, and one on which it is not – and making sure that everything else is done in exactly the same way (e.g. the same seeds are planted, the same compost is applied, and the same amount of time is spent on both plots, doing the same things). This type of experimental design is called *pairing*, and it is a powerful way of seeing exactly what happens as a result of implementing a specific WHC method.

4.3 Four Different Ways of Measuring

ii
How to measure?

In this section we will look at some different ways of measuring. There are a number of techniques that farmers can use to collect information about what they are doing and what the result is.

As a facilitator, you will need to help farmers select appropriate ways of measuring and recording their observations. For example, there is no point selecting a measurement method that requires the use of a kitchen scale, if there is no scale available to use.

There are four ways of measuring, as shown in Table 6.4.

Table 6.4 Ways of measuring indicators.

Way of measuring	Explanation	Example
Counting	**Use exact numbers**	price **Rand / kg** size of tanks **litres** 50 kg bags of manure **number** increase in garden size **%**
Rating (also called scaling)	**Use a description to show increasing or decreasing levels** *E.g. How good is your facilitator?* *How many people plough with oxen?*	*Fantastic Good Average Poor Awful* *None Some Many*
Classifying	**Select a definite category which is based on fact.** *E.g. Do you use mulch?* *Who fetches water for the garden?*	*Yes / No* *Men Women Girls Boys No-one*
Describing	**Describes in words only, but may have a structure to guide the answer.** *Did WHC improve the production from your garden? (get information on yield, drought risk, nutrition and cash sale)*	*Yes, it improved things a lot because we got more food and could sell extra to get some money. In winter we used water collected in the pond and also greywater. The children had more types of food to eat, and we are looking forward to fruit again in summer.*

Generally it should not be too difficult for farmers to provide good and practical indicators to define what they want to know from their experiments with WHC. They generally understand their own situation, and will often have their own indicators for assessing change. As a facilitator, you can give input to the process by reminding people of the two main questions that help define indicators:

- **What is your expectation?** (think about paired experiments if there is a comparison)
- **What is a practical and concrete way to measure this ?** (four ways of measuring)

Some examples of indicators are given next. You might want to use these to help explain the concept of indicators to farmers, or to help them generate ideas. Every farmer, however, should develop his or her own set of indicators that are relevant to and appropriate for their own particular situation.

4.4 An Example of Indicators

EXAMPLE: A rating system for an integrated, sustainable WHC and food production system

In this example, the indicators are used in a rating system that evaluates diversity and sustainability factors using a Low External Input Sustainable Agricultural (LEISA) approach.[1] The scoring system is simple (Yes = 1, No = 0 and Good = 3). The points for each farmer are added up to arrive at a total (see Table 6.5). Individual totals can them be compared over time (see Table 6.6).

Table 6.5 Simple rating indicators from a WHC intervention.

No.	Indicator Description	No Yes or Good	Score
1	Throughout the year the soil is kept covered and healthy.	G	3
2	A variety of crops and trees are growing.	Y	1
3	Rainwater is being harvested and utilised.	Y	1
4	Trees are planted and cared for.	Y	1
5	Natural methods of pest control are being used.	N	0
6	The soil is enriched with organic fertiliser.	N	0
7	What is taken from the soil is returned to the soil.	Y	1
8	The family is self-sufficient in vegetables and fruit.	N	0
	TOTAL for garden or field		**7**

Table 6.6 Farmer scores from rated indicators.

Village Name	TOTAL SCORE	TOTAL SCORE	Indicator Question No. and score obtained							
Beneficiaries who attended training at Nqoboshendlini	**May 2009**	**Nov 2009**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Nocinile Mdingwa	5	11	G	G	Y	Y	Y	Y	N	Y
			3	3	1	1	1	1	0	1
Khonzephi Mvakwendlu	11	12	G	G	Y	Y	Y	Y	Y	Y
			3	3	1	1	1	1	1	1
Nozuzile Mphehla	9	12	Y	G	G	Y	Y	Y	Y	Y
			1	3	3	1	1	1	1	1
Mazolisile Sadina	9	9	Y	G	Y	Y	Y	Y	N	Y
			1	3	1	1	1	1	0	1
Vusisiwe Nquko	8	5	N	Y	N	Y	N	Y	Y	Y
			0	1	0	1	0	1	1	1
Lindiswa Madolwana	10	9	Y	G	Y	Y	Y	Y	N	Y
			1	3	1	1	1	1	0	1
Mamcebiseni Mphehla	8	8	Y	Y	Y	Y	Y	Y	Y	Y
			1	1	1	1	1	1	1	1
Xoliswa Fuduko	7	12	G	G	Y	Y	Y	Y	Y	Y
			3	3	1	1	1	1	1	1
Mbulisisle Bahlule	10	12	G	G	Y	Y	Y	Y	Y	Y
			3	3	1	1	1	1	1	1

Using this system, a score was obtained for each field or garden. This score represents the status of the garden in terms of what people were hoping to achieve in their implementation of WHC using sustainable agricultural methods.

A high score indicates a better-functioning and more sustainable system *as viewed by the farmers.* In this project the monitoring exercise was conducted as a group, so individual gardens were discussed and scored together. In this way, farmers could evaluate if the garden had improved or worsened since the last evaluation. They could also identify areas which were weak (i.e. had a low score) and could focus on improving those elements.

4.5 Recording Information

ii
How to measure?

It is practical and advisable to enter all monitoring information into a 'monitoring book' that is used only for this purpose. The people who do the monitoring can be responsible for collating and summarising all monitoring information, either each month or at the end of the experimentation cycle, so that the results can be discussed and evaluated by the group.

It is recommended that the monitoring book is divided into three sections:

1. **Results of monitoring:** Tables that are developed during the monitoring workshop are entered into the monitoring book. These provide the framework for the data collection. The monitoring team collects and records the necessary information.

2. **Results of monthly meetings:** The monitoring results are summarised and presented to the group during monthly meetings. If the group is not happy about how the monitoring is being done, it can decide on changes that must be made to rectify this. Any changes or new decisions should be recorded in the monitoring book.

3. **Reflections about the monitoring method** (see Section 7).

5. Who Should Monitor and When?

5.1 Keep Monitoring Time-Input Short and Efficient

iii
Who should do it?

Farmers will usually have an idea as to who is able and suitable to conduct the monitoring. Individual farmers may prefer to monitor themselves, or the members of a group may all want to be involved in a group monitoring process.

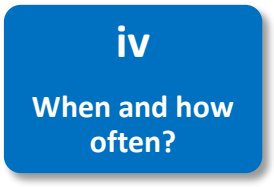
In situations where a group is large, or where there is an emphasis on monitoring for external research purposes, it may be practical for a few people to monitor the larger group. For example, if a group wants to monitor market information, it is neither sensible nor time efficient for the whole group to go to the market. Instead, a small team can achieve this much more efficiently, after which they can report back to the group.

When farmers develop a group monitoring plan, you should encourage them to make their decisions openly and formally so that all involvement in the monitoring process is clear to everyone from the start and no misunderstandings occur later. You can encourage farmer groups to consider the following:

- Nominate individual observers, or a monitoring team or committee. Define the role and function of these individuals or teams clearly, including how they will collect and record information, and when they will do it.
- Individuals who are selected to monitor should be litreate, or should work in a team where at least one person has good litreacy and numeracy skills.
- Individuals who are selected must be trusted by the larger group, as they will be observing and using their own judgement when gathering the information that the monitoring process requires.
- It can be useful to have two or more monitoring teams, especially in situations where perceptions about what is happening will vary between sub-groups (e.g. women, men, youth).

It may be necessary that you (the facilitator) assist the monitoring team during their few site visits, to ensure that they are clear as to how to conduct the exercise and are doing it correctly.

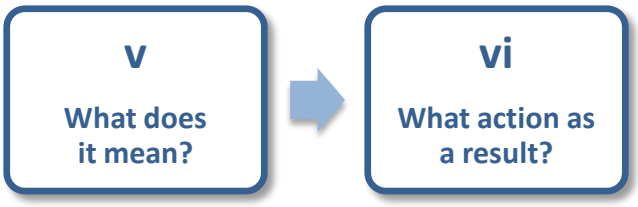
5.2 Timing of Monitoring Activities



WHC forms part of a farm or garden system, which by nature is seasonal and typically extends over a period of 3 months. Certain monitoring information will only be needed at the start of the season, midway through the season, and at the end. Some monitoring, however, will call for weekly or even daily checks (e.g. monitoring water levels in tanks, or the kilograms of fresh vegetables that are harvested, or the cash sales from a garden or field).

The timing of the monitoring (i.e. when it should take place) should be logical to yourself and to the farmers. The main thing is to make sure that the timing is carefully thought through and the process is well-planned. It's also important to remember that the monitoring process is an opportunity for people to share their experiences and to help each other solve problems. The monitoring visits can thus serve a dual purpose (i.e. of monitoring and of facilitating information-exchange during the season), in which case monthly visits would be well worthwhile.

6. Evaluating the Information



It would be useful to plan an evaluation session at least once a season, but ideally once a month. As the facilitator, you should sit down with farmers and really think about the implications of the information that is being collected.

In small groups which have simple monitoring systems (such as those in Example 1), discussions around what the information means are likely to take place during the monitoring visits themselves.

In larger groups, one of the tasks of the monitoring team includes summarising the information and presenting it to the group members during monthly meetings. Either you or a group leader should moderate these report-backs to ensure that people discuss and try to answer the following questions, as these will help provide insight into what the information means:

- What did we observe?
- Why do we have these results?
- Are we satisfied with the results and should we continue as before?
- Are we dissatisfied with the results and should we make some changes?
- What should we do?

Discuss immediately. It is probably advisable for farmers to discuss each finding immediately so that they don't get swamped with too much information.

It is likely that there will be differing opinions as to what the findings mean. A discussion should only be started if decisions need to be made, or if a persistent problem that has arisen needs to be resolved. If the findings are considered 'normal' or were expected, then there is no need to spend time discussing each one.

Consider what can be done. When thinking about what can be done to improve a situation, you can encourage people to ask a question from three perspectives:

- Is there anything that we (the group or individuals) can do *now*?
- Is there anything that we can do at some time *in the future*?
- Is there anyone else (who is not part of the group) who can do something?

activity 24

Monitor Your Progress

You have almost completed the second part of the WHC learning course. Imagine that once the course is over, you are going to go and implement a WHC development programme in a community, and you have decided that you would like to monitor and evaluate your own growth as a facilitator. This means that you must first develop a monitoring and evaluation plan for yourself.

Complete the following on your own:

1. List at least five expectations and five fears that you have about working as a facilitator.
2. Combine your fears and expectations into one list, and rank them in order of importance.
3. Develop indicators for the six most important things on your list.
4. Specify the *type* of measurement that you will use for each indicator (counting, rating, classifying or describing).
5. Draw up a monitoring table. List your indicators in this table, and next to each one, give the full detail of how it will be measured.
6. Decide when you will do the monitoring (i.e. how often or at what intervals).

Now, form small groups of 3 to 5 members. Each take a turn to share and explain your plan in detail. Ask each other questions about your plans to make sure that the indicators you have chosen and the way/s that you plan to measure them will give you the information that you need.

Time: 1 ½ hours

7. Assessing the Monitoring System

vii

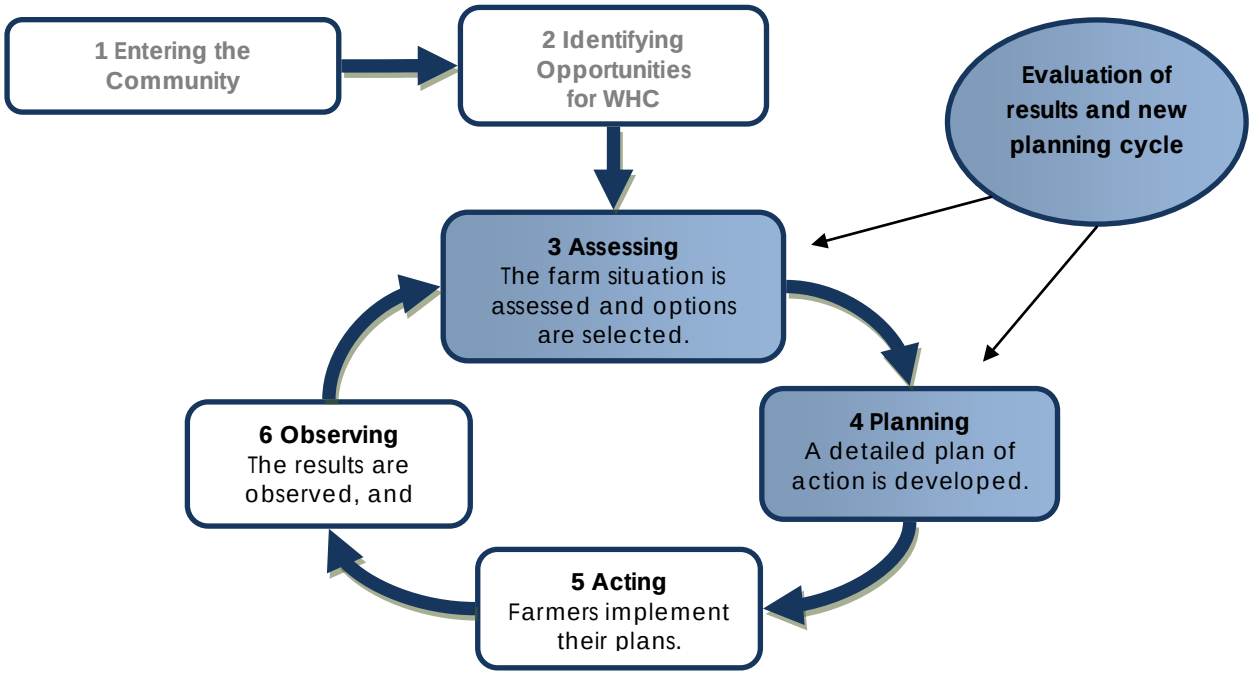
Assess the monitoring system

The group members should reflect on the monitoring indicators and activities themselves from time to time, to make sure that they are still relevant to their needs. The first indicators may not have been useful, or new expectations and fears might have arisen. When farmers assess their monitoring system, they can consider the following:

- Are all of the indicators still relevant?
- What went well during the monitoring process?
- What was easy?
- What was difficult?
- What can be improved?

8. The Action Learning Cycle Continues

The group will now have come full circle through the learning cycle, and will be moving into the next round of assessing, planning, acting and observing as they use their experiences to improve on their future practices. Successfully facilitating this ongoing cycle of "learning by doing", where **people learn how to solve their own problems** by responding creatively to the outcomes of their experiments and innovations, is probably the most valuable work that you as a development facilitator can do.

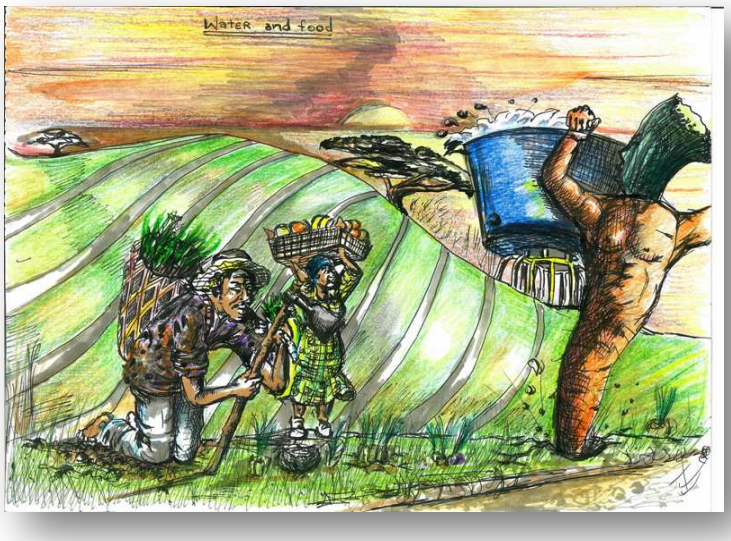


9. Test Yourself

1.	Explain the difference between individual, group and external monitoring.	9
2.	Explain what an indicator is and what it is used for.	2
3.	Outline a process that farmers can follow to develop indicators.	3
4.	Explain the difference between direct and comparative measurement.	4
5.	Discuss how and where monitoring information should be recorded.	4
6.	List four things that farmers should consider when developing their monitoring plan.	8
7.	Explain why it is important to evaluate the information that is collected during the monitoring process.	4
8.	List five things that should be considered when assessing a monitoring system.	5

10. References

[1] Wigley, T. 2009. *Unpublished Report.* IDT RWH Programme, Umhlaba Consulting Group.



Chapter 7

Wandile Nase (artist)
"The power of water for food."

Tools for PTID

Contents

Outcomes

At the end of this chapter you should be able to:

- Apply general guidelines for the use of participatory tools.
- Use semi-structured interviewing techniques with groups and individuals.
- Facilitate a group resource mapping exercise.
- Conduct a transect walk with a group.
- Facilitate a scoring and ranking activity with a group.
- Facilitate a brainstorm.
- Write a progress report.

1. Introduction

There are a number of participatory tools that development workers can use to explore different issues or themes when working in communities. The specific tools that are presented in this guide have been selected for their relevance to a water harvesting and conservation development process. Each tool is designed to enable participants to express, represent and analyse *relevant* knowledge and information in *participatory* ways.

The tools will only be useful if they are applied correctly and with skill. This means that you need to have a clear understanding of the characteristics, potential and limitations of each tool. You also need to follow some basic guidelines that are applicable when using any participatory tool in a community context. Finally, it is important that you practice using each tool – either with friends or with fellow students – before you use them with community members. This will help you develop confidence in using them. It will also familiarise you with the technicalities of each tool, the steps you must follow when applying them, and the approximate length of time that each tool requires. Later, as you gain experience in the field, you will learn how to creatively adapt the tools to maximise their usefulness for a specific context or situation.

2. General Guidelines for Participatory Tools

Adapt your time schedule to that of your hosts

During the initial stages of the PTID process you will have made contact with local leadership and obtained permission to enter the community and facilitate a WHC development process. As the process continues you will begin engaging with interested community members at a group and individual level. These people have many daily responsibilities with their family, community, gardens, fields and animals, so it is essential that you – who are a guest of the local people – adapt your time schedule to that of your hosts. This means that you need to talk to participants and find out when it is convenient for them to attend meetings or sessions, particularly those which will require a fair amount of their time.

Respect the privacy of others

It is particularly important to respect the privacy of individuals who agree to participate in your programme and its various activities. *Never* force or coerce a person to participate in something if she or he is reluctant to do so. Remember that as an outsider you have a limited understanding of the local people, their dynamics and their personal motivations for agreeing or

not agreeing to participate, and that you are not entitled to an explanation. Respect the choices that individuals make without being judgmental.

f you need or would like to take photographs when using the tools, make sure that you ask permission from the participants, explain why you want to take photos, and say what they will be used for (e.g. in a report). Do not take photos unless you have first obtained permission.

Understand visualization

Many participatory tools are based on ***visualization***, which is the process of putting ideas into visual images. The purpose of visualization is to enable local knowledge and ideas to be shared in a focused manner. The product – such as the map on the right – creates a focus of attention when local knowledge is presented and discussed.

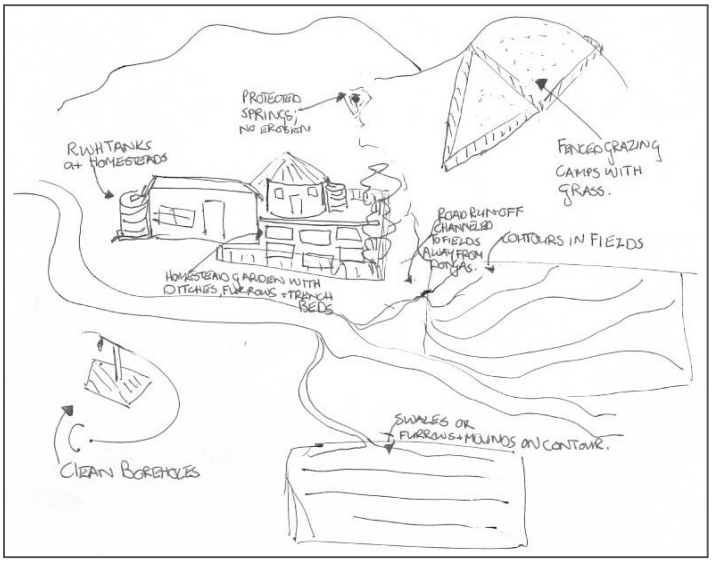


Figure 7.1 Visualisation is the process of putting ideas into visual images.

Participants should always be allowed to draw, graph or sketch their ideas by themselves. Do not try to influence their drawings, as this is likely to change the content, form or manner in which knowledge is being expressed.

The end product of a visualization activity – such as a map or poster – is the property of the community, and must remain there. If you want or need a copy of it, the easiest thing to do is to take a digital photo. Alternatively, you can make a copy by hand.

Use group discussions

The basic purpose of all participatory tools is to stimulate discussion around a particular topic or theme. To promote discussion, a facilitator must use good questioning skills. This mainly involves the use of open-ended questions, which usually start with the words *who*, *what, where*, *when*, *how* or *why*.

Use semi-structured interviewing techniques

A ***semi-structured interview*** is an interview that is guided by a few key questions which are composed before the interview begins. The interview itself, however, is *flexible* and allows new questions to be formulated and posed as the interview progresses. In other words, not all questions are designed ahead of time; in fact, most questions are created during the interview, giving the interviewer and the person/s being interviewed the chance to explore details and

relevant information which emerges. Semi-structured interviewing *techniques* can be used to promote discussion with groups and individuals. This can be done by posing one or two key questions about a topic and then developing further questions that are relevant to the ensuing discussion.

3. Introducing a Specific Tool

3.1 Explain the Purpose of the Tool

Briefly describe the tool and explain its purpose. Explain how it will be used by outlining the steps involved. Where applicable, give participants time to decide which individuals will be involved (some tools, such as a transect walk, require the participation of a few selected individuals rather than a large group). Agree on a timeframe with the participants.

3.2 Apply the Tool and Encourage Dialogue

Let participants begin engaging with the tool. While the tool is being used, encourage dialogue by posing relevant questions about the topic. At the same time, make sure that your questions do not interfere with the application of the tool (e.g. do not disrupt a group with a new question if they are already engaged in a lively discussion). Avoid asking leading or ambiguous questions.

3.3 Let Participants Present their Results

Once the tool has been used, ask the participants to present the results to the bigger group (where applicable) or to the same group, in order to review or summarize the knowledge that has emerged during the activity.

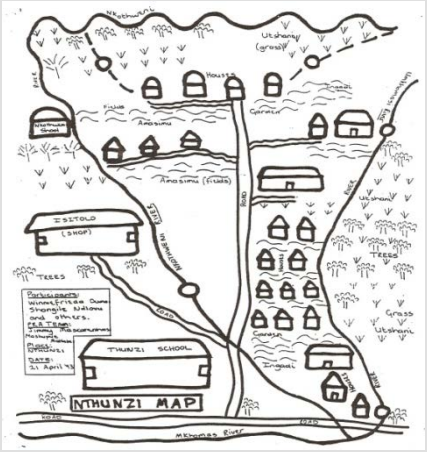
Figure 7.2 Let participants comment on the topic and the use of the tool.

3.4 Reflect and Conclude

Summarize the outcome briefly. Ask participants for comments or conclusions in relation to the *topic*, as well as in relation to the use of the *tool*.

Tool 1 – Resource Mapping

RESOURCE MAPPING



Description	Community members discuss and draw a map of the area. The map shows the physical features of the area as well as its resources, which could be natural or physical.
Purpose	• It provides an overview of the physical features and natural resources of an area. • It can be used to identify resources that are scarce or abundant. • It stimulates discussion on resource types and how they are used. • It promotes the sharing of local knowledge. • It provides a good starting point for an environmental or resource assessment. • It can be used to help monitor and evaluate changes in the use of natural resources over time.
Strengths	• It is highly visual and visible to many people. • It is highly participatory. • It can be added to easily. • It can be used as a planning tool. • It is easily adaptable and replicated.
Limitations	• Its size is limited by the size of the paper (but additional paper can be taped on). • It is subjective.
Materials	• large sheet/s of paper • different coloured markers (koki pens) or crayons
Time	1-2 hours

Resource Mapping Steps

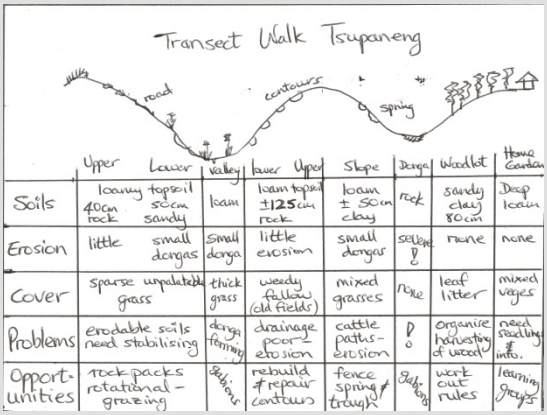
1	Introduce the concept of a resource map. Explain what it is and what making one involves.
2	Explain the purpose of the exercise.
3	Find a suitable place for the activity, such as a large room. It is best to work on the floor so that people can sit or stand around the paper and participate in the process. Make sure that there is enough space for all participants to see and be involved in the process. Other options are community venues such as church halls or school classrooms.
4	Let participants select someone to draw the map by *following the suggestions of the group*.
5	Ask participants to choose and agree on symbols that will be used to represent different features on the map.
6	Initiate a discussion about the area and let participants begin the activity. Although you should interrupt as little as possible, you should also try to make sure that the activity is not dominated by one or two individuals.
7	Once the map is finished, refer to it and facilitate a discussion around the community's land and water resources. You can ask questions such as the following:

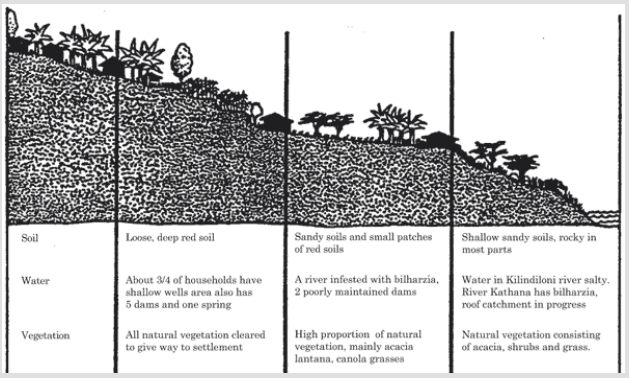
What **water resources** do you have?
Where is the water (rivers, streams, springs, wetlands, boreholes, taps, dams)?
How much water is there, and what happens in different seasons?
What is the water quality like?
Does everyone have the same access to water?
What do people use the water for?

What **land** do you have for agricultural production?
Where is the land located?
How big is the land?
Are the soils good for agriculture?
What are people growing in winter / summer?
Where are the grazing lands and what is their condition?
Are there fields which are no longer farmed?

Tool 2 – Transect Walk

TRANSECT WALK





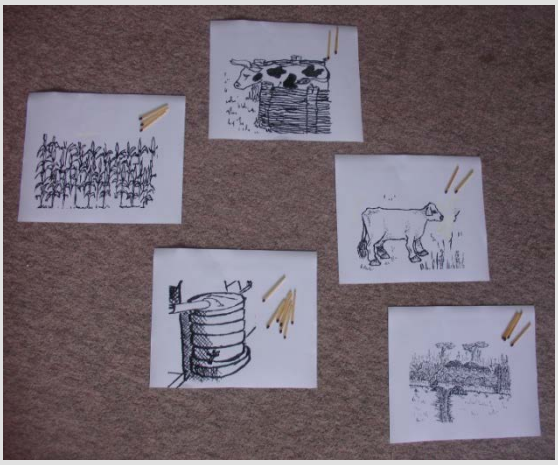
Description	A walk along a given route to observe the features of an area (i.e. the landscape), the location and distribution of different resources, and the different land uses. Walks can meander or follow a particular feature of the landscape, such as a river or footpath. After the walk, a transect diagram which shows a profile of the area is drawn and different features and resources that were identified are recorded in a matrix below the diagram.
Purpose	• It shows the physical features, natural resources and land uses of an area. • It can be used to identify resources that are scarce or abundant. • It promotes the sharing of local knowledge. • It provides a good starting point for an environmental or resource assessment. • It can validate the information produced during a resource mapping exercise.
Strengths	• It is highly participatory. • It can be used in low-literacy communities.
Limitations	• It only takes into account the current, observable situation. • It is time-consuming.
Materials	• notebooks / paper and pens (for taking notes during the walk) • large sheet of paper (for the transect diagram) • different coloured markers (koki pens) or crayons (for the transect diagram)
Time	Approximately 2-3 hours, although the time needed will vary depending on the size of the area.

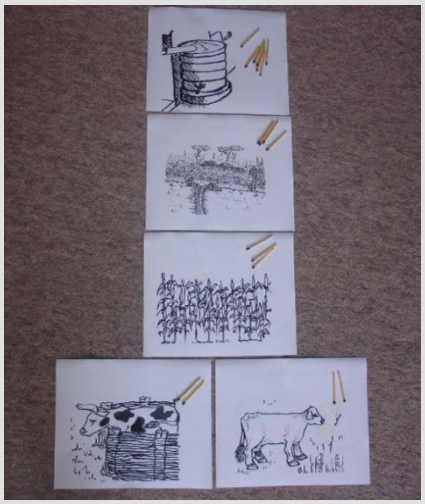
Transect Walk Steps

1	Introduce the concept of a transect walk. Explain what it is and what both stages of the activity involve.
2	Explain the purpose of the exercise.
3	Decide with the larger group who will take part in the walk. Try to make sure that different sub-groups (e.g. men, women, youth) are represented. The group should be relatively small (6-8 people).
4	Agree on a route to be followed. This decision can be based on the resource map, if one has already been produced.
5	Walk along the route. Stop at key features (e.g. rivers) and borders of new zones (e.g. forest, village, fields, gardens). Ask the group to discuss or describe what is encountered, and to explain the key characteristics of each feature or area. Observe and record the details of the discussion. Make sketches if necessary.
6	After the walk, stay in the small group and discuss and record the information that was collected. Use the information to make a diagram that illustrates the profile of the area, and divide the profile into its different agro-ecological zones.
7	Create a table below the diagram. In the left column, write down the key areas of interest. For a WHC intervention these are likely to be: soil, water, land use, crops & vegetation, problems and opportunities. Let group members discuss and fill in relevant information for each category and zone.
8	Let group members present the transect diagram to the larger group. Use the diagram to prompt further discussion about local resources (particularly land and water).

Tool 3 – Scoring and Ranking

SCORING AND RANKING





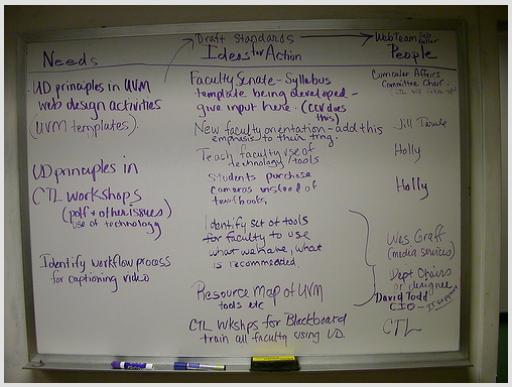
Description	**Scoring** involves giving a numerical value (e.g. from 1-10) to a number of different items. **Ranking** involves putting things in order, for example from most important to least important, best to worst, or smallest to largest. The tools can be used by individuals or by groups. Items to be scored or ranked can be written down *or* can be represented by a drawing.
Purpose	• Both methods can help identify priorities and preferences. • Both methods can be used to compare the priorities and preferences of different individuals or groups. • Scoring can be used to quantify information. • Ranking can be used to prioritise information.
Strengths	• They are highly visual (if done using pictures). • They are highly participatory. • They are flexible techniques and can be used in a variety of situations & settings. • They are interesting and fun tools for participants to use. • They can be used in low-literacy communities.
Limitations	• They can be time-consuming.
Materials	• paper • kokis or crayons • markers (e.g. stones, matchsticks, beans)
Time	20-60 minutes

Scoring and Ranking Steps

1	Introduce the tools and explain how to use them.
2	Explain the purpose of using the tools.
3	Ask participants to list or draw each item that needs to be scored and/or ranked.
4	Ask participants to score the items, using markers such as stones or beans. Scoring can be done in different ways. For example, you can give each individual 10 markers only, which they must use for all of the items, OR you can ask individuals to give each item a score (e.g. out of five or ten).
5	Ask participants to rearrange the items so that they are ranked in the correct order (e.g. of priority or preference).
6	Examine the results of the exercise and discuss what they mean.
7	You can also use the results as a focus for discussion, for example by asking participants to give reasons for their choices , priorities and/or preferences, or by asking them to explain how they assigned scores to each item.

Tool 4 – Brainstorm

BRAINSTORM



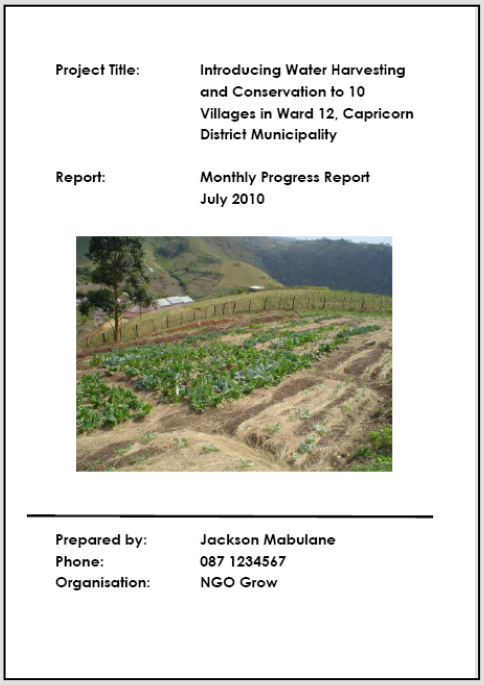
Description	A tool that can be used to generate a large number of ideas around a certain topic, or to find a solution to a problem. A brainstorm can be done by a group or an individual, although it is most effective with groups because more ideas or solutions can be generated.
Purpose	• It can be used to generate ideas about a topic. • It can be used to generate solutions to a problem.
Strengths	• It encourages creative thinking. • It can be relatively quick and easy if ideas are put down in writing. • It is visual. • It is highly participatory.
Limitations	• It can be time-consuming if ideas need to be represented with pictures.
Materials	• paper • kokis or crayons
Time	5-30 minutes

Brainstorming Steps

1	Introduce the concept of a brainstorm and explain how it is done.
2	Explain the purpose of conducting the brainstorm.
3	Define the question or the problem to be brainstormed. For example: How will you know if this new method is more successful than the conventional one?
4	Encourage participants to share their ideas, and write every idea down on a large piece of paper which all participants can see. If necessary, a symbol or a simple picture can be drawn to represent each idea.
5	When ideas or solutions are being shared, make sure that: • every single idea is welcomed and recorded, even if it is unusual, and • no idea is criticized or commented on.
6	When all ideas have been recorded, they can be discussed (clarified or elaborated on) and then grouped (e.g. similar ideas can be joined together and presented as one idea).
7	Ideas can then be prioritised, using scoring and ranking, and the best ideas (i.e. those that the group considers most useful or most important) can be selected.

Tool 5 – Framework for Reports

FRAMEWORK FOR REPORTS



Project Title: Introducing Water Harvesting and Conservation to 10 Villages in Ward 12, Capricorn District Municipality

Report: Monthly Progress Report July 2010

Prepared by: Jackson Mabulane
Phone: 087 1234567
Organisation: NGO Grow

Description	A communication tool that is used to share information, usually within organisations. Reports are mainly used to document processes or record information for future reference. They can also be used to help with planning, decision-making and problem-solving.
Purpose	• They can be used for information-sharing, planning, decision-making, problem-solving and reference purposes. • They are often a formal requirement by an organisation.
Process and Report Framework	Reports do not have to be long or difficult to write, and can be just a few pages. Your organisation might have a set format that you have to follow. If not, you can use the following: **Cover Page** Village and project name Your name Date Your contact number (A photo on the cover from the monthly activities will make your report interesting to the readers.)

Section 1 **Monthly Activities.** This is a summary of what took place in the month, including meeting dates, workshops, fieldwork, or other notable events.

You can include all of this information in a single table such as the following:

Date	Activity	Short Comment
11 July 2010	Visit swales in Qoboshendleni	Attendance good (23 people) but difficult because of rain.

You do not need to write a whole lot about each activity, just a note if something deserves special mention (such as a visitor, or conflict, or good attendance, or an interesting highlight, etc.).

Section 2 **Outcomes and Observations.** As a facilitator your purpose is to make a positive contribution to a PTID process. As this process unfolds, you will observe social dynamics as well as technology uptake and new innovations. In this section you can record your observations. This can be done briefly or at length, depending on the purpose of the report.

Section 3 **Attachments.** Any information that may be useful for future reference can be attached to the report. These can include:

- Photocopies of diary pages or notes from meetings, workshops or field visits.
- Agendas and minutes of meetings.
- Selected photographs that you or others might have taken during the month.
- Pamphlets or information sheets that you have used or come across.
- Data collection sheets (if applicable).

4. Test Yourself

1. Provide four general guidelines for the use of participatory tools, and discuss each one in detail. 16

2. Explain in detail the process you can follow when introducing a participatory tool to a group of participants. 12

ACRONYMS

AGIS	Agricultural Geo-Referenced Information System
ARC	Agricultural Research Council
CA	Conservation Agriculture
DWAF	Department of Water Affairs and Forestry
FBO	Faith-Based Organisation
FET	Further Education and Training
FPR	Farmer Participatory Research
HEIA	High External Input Agriculture
LEIA	Low External Input Agriculture
LEISA	Low External Input and Sustainable Agriculture
NGO	Non-Government Organisation
NQF	National Qualifications Framework
PAR	Participatory Action Research
PEA	Participatory Extension Approach
PID	Participatory Innovation Development
PIM	Participatory Impact Monitoring
PLA	Participatory Learning and Action
PRA	Participatory Rural Appraisal
PTD	Participatory Technology Development
PTID	Participatory Technology and Innovation Development
SAPWAT	South African Plant Water Requirement Computer Model
SAQA	South African Qualifications Authority
SLA	Sustainable Livelihoods Approach
TOT	Transfer of Technology
UKZN	University of KwaZulu-Natal
WHC	Water Harvesting and Conservation
WRC	Water Research Commission

GLOSSARY

action learning	Learning by analysing one's own actions and experiences in order to improve future performance.
agency	The ability that people have to influence or make changes in their lives.
ambiguous	Having at least two possible meanings or interpretations.
brainstorm	A tool that is used to generate a large number of ideas around a certain topic or to find a solution to a problem.
closed-ended questions	Direct, straightforward questions that are aimed at receiving specific information.
comparative measurement	Observing and recording two or more things of interest and comparing them with each other.
connotations	The meaning that a word suggests or implies.
deconstructing	To critically analyse a concept or idea.
direct measurement	Observing and recording something of interest without comparing it with anything else.
dysfunctional conflict	Destructive conflict which is usually based on emotions and which reduces the performance and effectiveness of a group or individual.
explicit knowledge	Knowledge which can be articulated, expressed or recorded using language or numbers.
facilitator	A person who contributes structure and process to interactions so that groups are able to function effectively and make high-quality decisions.
farmer	Any person who engages in crop and/or animal production in fields or home gardens.
functional conflict	Constructive conflict which supports the goals of a person or group and improves performance.
idea of "Progress"	The belief that all societies are moving naturally and consistently "upwards" from poverty, barbarism, despotism and ignorance to riches, civilization, democracy and rationalism.
ideology/ideologies	A set of beliefs, values and ideas that shapes the way a person or group thinks, acts and understands the world.
implicit knowledge	Unwritten, unspoken knowledge which accumulates over time through experiences, insights, intuition and observations.

indicators	Exact things which must be observed and/or measured in order to determine whether something specific has occurred or been achieved.
innovation	The process by which people develop new and better ways of doing things, using their own resources and initiative.
innovations	Outcomes of the innovation process.
Johari Window	A tool for developing self-knowledge.
leading questions	Questions which suggest a specific answer or imply that there is a correct answer.
local / indigenous knowledge	Knowledge that is unique to a society or culture, has developed from experimentation, has been proven over time, and is directly applicable to local needs.
open-ended questions	Probing questions which are used to help understand issues and concerns, identify needs, and explore problems.
participation	Involving people so that they make informed decisions and directly influence change in their lives.
Participatory Technology and Innovation Development (PTID)	A participatory approach which focuses on farmer-led experimentation and innovation in order to increase the ability of farmers to develop sustainable farming systems.
prioritised	To order things according to their importance or urgency.
qualitative	Subjecting information that cannot be measured.
quantitative	Something that is capable of being measured or expressed in numerical terms.
ranking	Putting a number of items in a specific order (e.g. from smallest to largest, or from most important to least important).
regenerate/regenerative	To become formed or constructed again (to renew or restore).
resource mapping	A PRA tool which involves community members discussing and drawing a map of the area and its natural and/or physical resources.
science/s	The study and understanding of the natural world and the natural universe.
scoring	Giving a numerical value to a number of different items.
semi-structured interview	An interview that is guided by a few key questions which are composed before the interview begins, but which remains flexible and allows new questions to be formulated and posed as the interview progresses.
stereotypes	The belief that all members of a specific group share certain characteristics.

sustainable	Having the capacity to endure over time.
sustainable development	Long-term productivity and improvement in quality of life and the natural resource base.
system/s	A group of interacting and interdependent elements which together form a complex whole.
technology/technologies	(1) All tools, machines, utensils, weapons, instruments, housing, clothing, communication and transport devices, *and* the skills by which we produce and use them. (2) The innovation, change, or modification of the natural environment to satisfy human needs or desires.
transect walk	A PRA tool which involves community members walking along a given route to observe and discuss the features of an area, after which a profile of the area is drawn that shows its features and resources.
Transfer of Technology (TOT)	A top-down, teaching-based development approach.
transparent	Clearly recognizable; completely open and frank.
values	(1) Ideals or beliefs that we hold which are meaningful to us. (2) The accepted principles or standards of a person or group.
visualization	The process of putting ideas into visual images.

ADDITIONAL RESOURCES

Further information on the following topics can be accessed on the internet by going to the website link which is shown. The document that is listed will be found there and can be read online or downloaded for future reference.

PROGRESS & DEVELOPMENT

Website: http://eng.yabloko.ru/Forums/Main/posts/409.html
Document: The Idea of Progress (Shanin, T. 1995)
Description: Article on the Idea of Progress.

Website: http://www-personal.umd.umich.edu/~delittle/iess%20Development-DS%20v3.htm
Document: Development (Little, D.)
Description: Article on Development Theory.

INDIGENOUS/LOCAL KNOWLEDGE

Website: http://www.worldbank.org/afr/ik/ikpaper_0102.pdf
Document: Indigenous Knowledge for Development. Opportunities and Challenges (Gorjestani, N.)

Website: http://siteresources.worldbank.org/EXTINDKNOWLEDGE/Resources/ikcomplete.pdf
Document: Indigenous Knowledge. Local Pathways to Global Development (The World Bank, 2004).

FACILITATION SKILLS

Website: http://www.mujcin.com/ekonet/Organization.pdf
Document: Organisation & Management Manual for Trainers. Chapter 2: Facilitation Skills.
Description: A manual for environmental NGOs. Provides trainer information on the basic steps and tools for facilitating meetings.

Website: http://www.nsttac.org/products_and_resources/InstituteToolkit/FacilitatorPreparationMaterials/Facilitator%20Handbook.pdf
Document: How to Facilitate Groups. A Quick Reference Handbook on Active Facilitation Techniques.

PARTICIPATORY EXTENSION

Website: www.odi.org.uk/work/projects/agren/papers/agrenpaper_94.pdf

Document: Putting Process into Practice: Operationalising Participatory Extension (Hagmann, J. with Chuma, E., Murwira, K & Connolly, M.)

Website: http://www.fao.org/docrep/W5830E/w5830e08.htm#TopOfPage
Document: Improving Agricultural Extension. A Reference Manual. Chapter 20 – Extension's role in sustainable agricultural development (Röling, N. & Pretty, J.N.)
Description: A reference manual by the Food and Agricultural Organisation of the United Nations.

Website: http://www.cropscience.org.au/icsc2004/symposia/4/1/1053_ngomanet.htm#TopOfPage
Document: The Evolution of Extension Processes and Practices in Relation to Smallholder Farming in southern Africa (Ngomane, T.)

Website: http://www.fao.org/docrep/W5830E/w5830e08.htm#TopOfPage
Document: Agricultural Extension, Rural Development and the Food Security Challenge.
Description: Article by the Food and Agricultural Organisation of the United Nations.

Website: http://www.up.ac.za/academic/ecoagric/institute.htm
Document: South African Institute for Agricultural Extension (Düvel, G.)
Description: Information on Extension in South Africa.

Website: http://www.fao.org/sd/erp/documents2007/FinalStrategyNovember2003.pdf
Document: Agricultural Education and Training (AET) Strategy for Agriculture in Rural Development in South Africa (2003)

Website: http://www.aiaee.org/vol-92-summer-02/261-vol-92-summer-2002.html
Document: Journal of International Agricultural and Extension Education. Volume 9, Number 2 Summer 2002.

PARTICIPATORY DEVELOPMENT

Website: http://knowledge.cta.int/en/Dossiers/Demanding-Innovation/Participatory-approaches-in-ARD/Articles/Participatory-approaches-in-agricultural-research-and-development
Document: Participatory approaches in agricultural research and development (Heemskerk, W. 2005)

Website: http://www.alexandrasamuel.com/netpolitics/studentsites/publicsites/JeffMcK/index.html
Document: Holding Back the Tide: Improving Participatory Development by Utilizing Information and Communication Technology (MacKenzie, J. 2002)
Description: Article which includes a section on the theory of participatory development.

Website: http://www.uoguelph.ca/~res/download/op_5.html
Document: Farmer Participatory Research and Technology Development. Occasional Papers in Rural Extension No. 5 (Jiggins, J.)

Website: http://www.lei.dlo.nl/wever/docs/nieuws/060126_Brochure_jointlearning.pdf
Document: Joint Learning in Applied Development Research.
Description: Document by LEI Agricultural Economics Research Institute, The Hague

Website: http://www.fao.org/documents/pub_dett.asp?pub_id=159396&lang=en
Document: Participatory Development: Guidelines on Beneficiary Participation in Agricultural and Rural Development (Van Heck, B. 2003)

Website: http://www.cip-upward.org/main/CMS_Page.asp?PageID=1
Document: Participatory Research and Development for Sustainable Agriculture and Natural Resource Management. A Sourcebook. (3 Volumes)

PARTICIPATORY INNOVATION DEVELOPMENT (PID)

Websites: http://www.prolinnova.net/Downloadable_files/Agridea%20part_I.pdf
http://www.agridea-international.ch/?id=533
Document: A Manual for Introducing Participatory Innovation Development (PID).
Description: PID Training Manual. A collection of training modules for initiating PID activities.

Website: http://www.prolinnova.net/Nepal/PID_guideline_design.pdf
Document: Guidelines to Participatory Innovation Development (Rai, S.)

PARTICIPATORY TECHNOLOGY DEVELOPMENT (PTD)

Website: http://www.smallstock.info/issues/IK.htm
Document: Handbook of Participatory Technology Development (PTD)

Website: http://www.mtnforum.org/oldocs/544.pdf
Document: Field Manual: Participatory Technology Development (PTD). Linking Indigenous Knowledge and Biodiversity for Sustainable Livelihoods. (2004)

Website: http://www.agnet.org/library/eb/462/
Document: Participatory Approaches to Agricultural Technology Development in Sloping Lands (Horne, P. & Stür, W.)

Website: http://www.idrc.ca/en/ev-85064-201-1-DO_TOPIC.html
Document: Participatory Technology Development Where There is No Researcher (van Veldhuizen, L., Waters-Bayer, A. & Wettasinha, C.)

Website: http://www.smallstock.info/issues/partechdev.htm

Document: Participatory Research and Participatory Technology Development
Description: Includes PTD methods and techniques.

PARTICIPATORY APPRAISAL TECHNIQUES (mapping, transect walks, scoring, ranking, etc)

Website: http://www.acdi-cida.gc.ca/acdi-cida/acdi-cida.nsf/eng/EMA-218123623-NP9
Description: A summary of participatory appraisal techniques, followed by a series of tool sheets providing greater detail on specific techniques.

Website: http://www.fao.org/docrep/W5830E/w5830e08.htm#TopOfPage
Document: Improving agricultural extension. A reference manual. Chapter 6 – Using rapid or participatory rural appraisal. (Pretty, J.N. & Vodouhê, S.D.)
Description: FAO reference manual.

Website: http://www.rudep.org/Doc/ADD0806_ICDP_SEPP%20PRA%20Facilitator%20Manual%20(Aug07).pdf
Document: Participatory Rural Appraisal: Manual for Facilitators.
Description: Includes PRA tools such as transect walks, scoring and ranking.

Website: http://www.smallstock.info/issues/participation.htm#methods
Document: Participatory Rural Appraisal and Related Techniques

MONITORING AND EVALUATION

Website: http://www.nssd.net/pdf/resource_book/SDStrat-10.pdf
Document: Chapter 10: Monitoring and Evaluation Systems

Website: http://www.worldbank.org/afr/ik/commun_toolkit/Toolkit2/monitoring.htm#a
Document: Capitalising on Local Knowledge – Community knowledge exchange. Toolkit II Guidelines for Implementation. Monitoring and Evaluation.

Website: http://www2.gtz.de/dokumente/bib/96-2007_I.pdf
Document: PIM Booklet 1: Group-based impact monitoring (Germann, D. & Gohl, E.)

Website: http://www2.gtz.de/dokumente/bib/96-1709_I.pdf
Document: Participatory impact monitoring.
Description: General information. Keywords and abstracts. Selected reading examples.

Website: http://portals.wi.wur.nl/ppme/?Participatory_Impact_Monitoring_(PIM)
Document: Participatory Impact Monitoring
Description: Description of PIM (under Methodologies and Approaches)

Website: http://www2.gtz.de/publikationen/isissearch/publikationen/details.aspx?RecID=BIB-GTZ015734

Document: Participatory impact monitoring (Germann, D., Gohl, E. & Schwarz, B. 1996)

Description: Booklet 1: Group-based impact monitoring. Booklet 2: NGO-based impact monitoring. Booklet 3: Application examples. Booklet 4: The concept of participatory impact monitoring.