

Chapter 3 -

Project Implementation Guidelines

PLEASE NOTE: In these Guidelines –

“PROGRAMME MANAGEMENT”

means all the actions of the Department of Water Affairs and Forestry (DWA) to manage interactions with the implementing agents and all other role-players for all RWH projects under the DWA Rainwater Harvesting Programme.

“PROJECT IMPLEMENTATION”

means all the actions taken by a Registered Implementing Agent (RIA) to manage the processes required to implement a RWH project in a project area (community or group of communities) on behalf of and under appointment to DWA.

Project Implementation Stage

Chapter 2 above has covered the work that has to be done before a project is approved for implementation. Once the Project Implementation Plan has been approved, the Implementation Stage shall start. The first thing to be done is to train and train.

DWA will provide key input to the RIAs' key staff, who must then in turn train the rest of the RIA staff and site staff from the community, on the following implementation aspects:

- ❖ The RIAs' **ISD Managers** on the LN-SI Project Implementation System, procedures and forms. The RIA officials shall in turn train their **ISD Facilitators**, **project steering committees (PSCs)**, the **bookkeepers**, the **storekeepers** and the **beneficiaries**, etc.
- ❖ The RIAs' **FFP Managers** and Extension officers on aspects such as mind mobilisation, helicopter planning, intensive Family Food Production, etc. They will in turn train **FFP Facilitators** and **FFP Assistants**.
- ❖ The RIAs' **Technical Management** staff on design, construction and quality aspects. They in turn shall train **Quality Assessors** and **builders** (not on general building techniques – but how to build water-tight RWH Dams).

These guidelines contain the basic training material for these processes, including the following:

- ❖ manuals and forms for on-site project administration (Chapter 3 + Appendix C),
- ❖ explanation of community facilitation, and individual mind mobilisation and helicopter plans, as well as workshop outlines for the introduction of FFP to households (Chapter 4 + Appendix D; and Chapter 5 + Appendix E),
- ❖ simple manuals on siting and building of RWH Dams, and standard plans, specifications and construction methods approved by DWAF (Chapter 6 + Appendix F).

When adequate training has been provided, administrative procedures can then be put in place and construction can start.

Under this Chapter 3, the Project Implementation Guidelines, which have been developed specifically in the context of 'Large Number-Small Infrastructure (LN-SI)' Projects, will be covered.

Background

The Project Implementation Guidelines in this Chapter are based on a model developed by Makhetha Development Consultants for implementation of sanitation projects. Using their model, Makhetha Development Consultants were able to achieve 60% of the total national sanitation implementation output in 2002. Every single VIP toilet constructed during this massive rollout, involved personal interaction with and commitment from a specific rural household – no “toilets-in-the-veld” or “twin-toilets-per-yard” were built to boost the numbers.

There are many similarities between household sanitation and homestead RWH projects:

- a. Both involve the construction of large numbers of relatively small infrastructure in dispersed and often geographically difficult sites;
- b. Both types of infrastructure are built at people's houses and become the property of the household; and
- c. Both require active involvement of the household in terms of physical preparatory work, decisions about positioning of the infrastructure on the yard, and household training in the use and maintenance of the infrastructure.

The main difference between sanitation and RWH structures, is that every single household needs a toilet and have a daily need to use it. RWH structures, on the other hand, should only be built for those households that really need them, and are likely to continue using them. This adds two important dimensions to a RWH infrastructure project, namely:

- d. The need for **proper targeting**, especially of families unable to meet their daily food needs; and, therefore
- e. The need to **mobilise, motivate and equip** participating households to make meaningful use of and benefit from the RWH infrastructure – hopefully for twenty years into the future.

Project Implementation

RIA implementation team: overview of functions and staff

To achieve the challenges set out in items (a) to (e) above, the RIA implementation team must be able to perform in three distinct functional areas, namely **ISD**, **FFP** and **TECH** (see Box below). The work in these three areas is done through two complementary sets of staff, namely:

- ❖ **RIA staff** – who are staff in permanent or contract employment to the RIA; and
- ❖ **Site staff** from the community – who are appointed jointly by the RIA and the community's Project Steering Committee (**PSC**) for the RWH Project, and are paid from the Community Bank Account for the RWH Project.

RIA staff for the three Functional Areas

“ISD” – Institutional and Social Development

Responsible for liaison with village leadership and other organisations; training of site staff; and conflict resolution

RIA staff:

ISD Facilitator (based at the *area office*; can serve one or more projects)

ISD Manager (RIA *head office* staff); supplies specialist back-up to **ISD Facilitators**

“FFP” – Family Food Production:

Responsible for facilitation of all processes with participating households, e.g. Mind Mobilisation, training in intensive Family Food Production techniques, etc.

RIA staff:

FFP Facilitator (based either at the *area office* for several smaller projects, or at the *project office* in the village, if the project is large enough to warrant this)

FFP Manager (RIA *head office* staff); supplies specialist back-up to **FFP Facilitators**

“TECH” – Technical/Construction:

Responsible for the construction of the RWH Dams and related infrastructure and equipment.

RIA staff:

Technical Officer (based at the *project office* in the village)

Technical Management; to supply specialist back-up to the **Technical Officers**.

[Note: this function is ideally fulfilled by the **Area Manager**, with back-up from the **Project Manager**]

The RIA's **Area Manager** ensures integration between the work of the **ISD**, **FFP** and **TECH** components in each Project Area under his/her jurisdiction, and is based in the *area office*.

The **Project Manager** may be based at the RIA's *head office*, and carries overall responsibility for all the RIA's DWAF RWH projects.

Community administrative procedures are the responsibility of **site staff** from the community, including a **Quality Assessor**, **Bookkeeper** and **Storekeeper**. As far as possible, **Builders** are appointed from the local and surrounding communities. The **FFP Assistants** from the community help the **FFP Facilitator** to prepare and support households in all the implementation processes.

Community site staff for the three Functional Areas

All community site staff are based at the *project office* in the project area or community

“ISD” – Institutional and Social Development

Site staff:

Bookkeeper

Storekeeper

- **ISD** site staff report to the RIA's **ISD Facilitator**

“FFP” – Family Food Production:

Site staff:

FFP Assistants

- **FFP** site staff report to the RIA's **FFP Facilitator**

“TECH” – Technical/Construction:

Site staff:

Quality Assessor (QA)

QA Assistants

Builders

- **TECH** site staff report to the RIA's **Technical Officer**

The roles and responsibilities of both the RIA staff and the community site staff are discussed in more detail below. The qualifications required for each position are also shown.

Organisational set-up

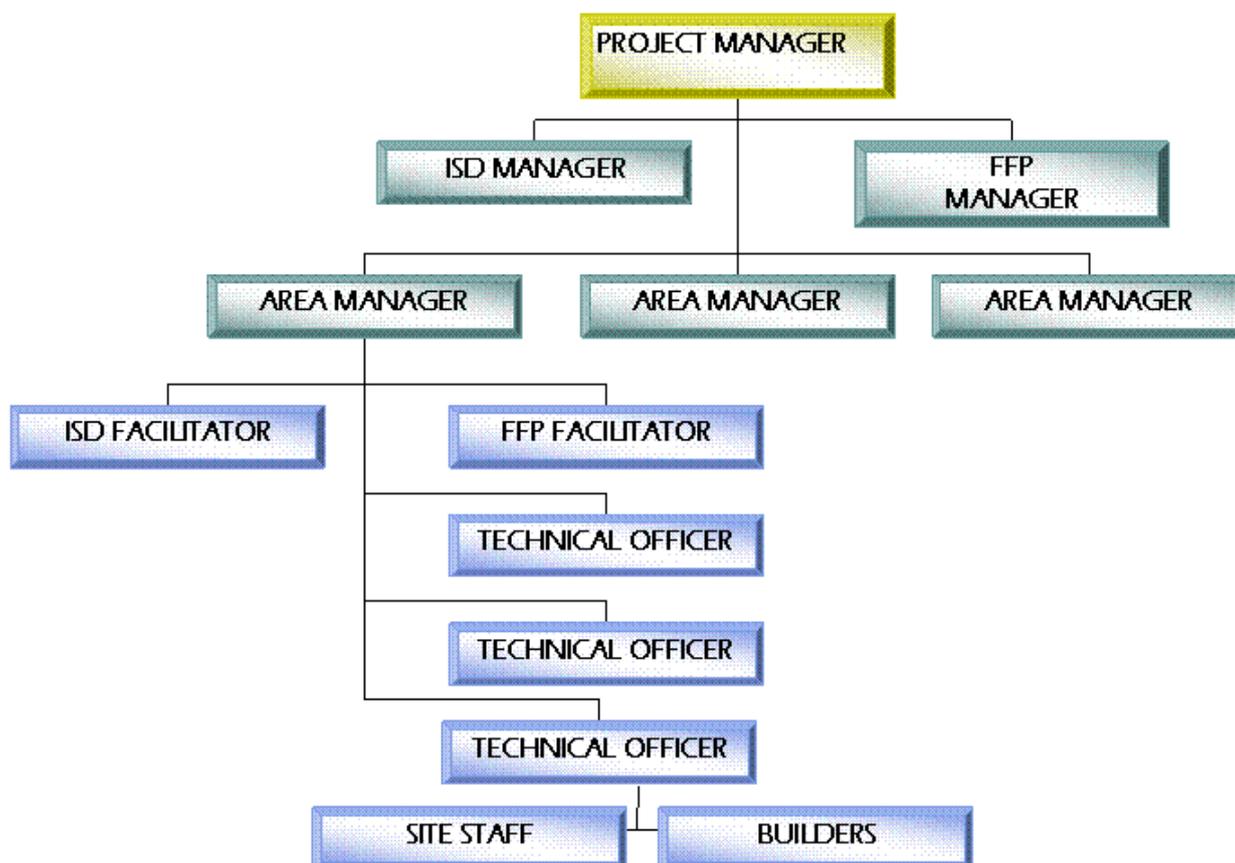
The proposed organisational set-up (organogram) for implementation of projects by individual RIAs is illustrated in **Diagram 3.1**: Proposed Organogram for RIA Implementation Team.

RIAs are urged not to take the following proposed organisational setup lightly, but to study in depth the reasoning behind this structure and the duty sheets for each of these positions (**Appendix C2**: 'Functions of Site Staff'). A thorough look into **Appendix C1**: 'Implementation Procedures' and **Appendix C3**: 'Books and Forms', would help clarify the necessary activities in LN-SI projects, and thus the roles and responsibilities of each position on this team. The required interactions between these proposed team positions have been tried and tested and were developed from bitter experience.

From the **Area Manager**'s position downwards, this organogram can be duplicated in accordance with the number of projects being implemented. Every **Area Manager** has under him/her a team made up of **Technical Officers** (one per project or for two projects, depending on the proximity and the size of the projects) one **Institutional and Social Development (ISD) Facilitator** and one **Family Food Production (FFP) Facilitator**. The **ISD** and **FFP** Facilitators can look after a number of projects concurrently, depending on the geographical spread and the number of households participating.

The area of jurisdiction for each **Area Manager** does not necessarily follow the boundaries of the District Municipality, but depends on the number of projects and proximity of those projects to each other.

Diagram 3.1 – Proposed Organogram for RIA Implementation Team



The responsibilities of the people in the various positions are as follows:

a) RIA staff

Project Manager – The responsibility of the Project Manager is to oversee the whole implementation process, which encompasses Institutional and Social Development (**ISD**) support, Family Food Production (**FFP**) support and construction (**TECH**). Special emphasis is placed on productivity (which covers both the gardens developed and quantity and quality of RWH Dams) and the management of finances (both at head office and site offices) and training. The Project Manager can efficiently oversee up to four **Area Managers**. The Project Manager is a person who has qualifications in civil engineering/agricultural engineering and project management, and has a clear understanding of government policy relating to the programme.

ISD Manager – She/he shall be responsible for providing support to the **ISD Facilitators** in terms of training, updating manuals and shall be involved in the appointment of site staff. She/he shall also monitor the work done by **ISD Facilitators** through site visits and reports. She/he shall have relevant qualifications in community development.

FFP Manager – She/he shall be responsible for providing support to the **FFP Facilitators** in terms of training and updating of manuals. She/he shall also monitor the work done by the **FFP Facilitators** and monitor the experiments carried out at different households. Where the RWH Dams are meant to enhance economic activities other than gardening she/he shall source the people who can provide relevant advice and training to the households. She/he shall have a relevant qualification in Agriculture.

Area Manager – He/she shall be responsible for the smooth running of the projects under his/her jurisdiction. His/her primary responsibility shall be to ensure that the projects are implemented efficiently and within the budget, as well as maintaining good relationships with the Project Steering Committee (**PSC**) and the District Municipality. The **Area Manager** shall be a person who has qualifications in construction plus five years experience in construction OR has more than ten years experience in construction, and shall have experience in working on community based projects.

Technical Officer – He/she shall be responsible for supervising construction site staff, including the **Quality Assessor** and the **builders** on the construction side. The technical officer shall have a diploma in civil engineering OR a minimum of five years experience in construction. He shall be expected to liaise to a large extent with the **ISD Facilitator** and the **FFP Facilitator** on administrative, social and training issues.

ISD Facilitator – He/she shall be responsible for organising or providing training to empower the **PSC** to participate meaningfully in the implementation of the project. He/she shall also be responsible to ensure that the administrative procedures are properly followed by the site staff in the procurement and issuing of materials. He/she shall have some qualification in community development. He/she shall be fluent in the language spoken in the area.

FFP Facilitator – She/He shall be responsible for organising or providing training to empower households to provide food for themselves through gardening or any other economic activity which will make use of the RWH Dams. She/he will also monitor the progress made by households and participate in the **PSC** meetings. She/he shall supervise the work of the FFP Assistants. She/he shall have some qualification in Agriculture. She/he shall be fluent in the official language spoken in the area.

b) Site staff from the community

FFP Assistant – She/he shall be responsible for facilitation processes at the households, to encourage, motivate and guide them in establishing intensive food gardens and making sure that the households achieve the requirements for the construction of their RWH Dams in time for the **TECH team** to complete their work according to schedule. She/he shall have extensive experience in facilitating poor households. She/he shall be a member of the community where the project is being implemented.

Quality Assessor and QA Assistants – He/she shall be responsible for supervising **builders** and making sure that the RWH Dam structures provided are safe and are of good quality. He/she shall have a trade certificate in building OR extensive experience in building. He/she shall be a member of the community where the project is being implemented.

Builder – He/she shall be responsible for building a safe and good quality rainwater dam. He/she shall be a **builder** by profession. He/she shall be a member of the community where the project is being implemented. Should the number of **builders** from the community not be adequate, **builders** can be imported from other communities.

Bookkeeper – She/he shall be responsible for filling the job cards and keeping the financial records for the project. She/he shall have passed Grade 10 and worked in this capacity before OR have passed Grade 12, which included subjects such as accounting, economics and maths. She/he shall be a member of the community where the project is being implemented.

Storekeeper – He/she shall be responsible for ordering and issuing of materials. He/she shall have passed Grade 10 and worked in this capacity before OR have passed Grade 12, which included subjects such as maths. He/she shall be a member of the community where the project is being implemented.

Further detail on the functions of the site staff appears **Appendix C2** as follows:

APPENDIX C2. FUNCTIONS OF SITE STAFF

C2.1 Functions of the **Bookkeeper**

C2.2 Functions of the **FFP Facilitator**

C2.3 Functions of the **Storekeeper**

C2.4 Functions of the **Quality Assessor**

Roles and Responsibilities of the ISD, FFP and TECH sections

The functions performed by **ISD**, **FFP** and **TECH** Sections are described in more detail below.

Institutional and Social Development

Of great importance to the implementation process is the **ISD** facilitation. Understanding the cultures and the dynamics of the communities being served, as well as speaking the language, is critical to the success of the projects. During the planning process the community and the community leaders are made aware of the project by the **ISD Facilitator**. Once a draft of the Project Implementation Plan has been drafted, the **ISD Facilitator** shall workshop it with the community and include their input.

The typical responsibilities of the **ISD facilitation** in the project are the following:

- ❖ Establishment of the **PSC** (see **Appendix C1.1**)
- ❖ Conducting baseline surveys and demographic study of the project area (see relevant sections of **Appendix B2 and B3**)
- ❖ Organising and conducting **PSC** training on "Committees' responsibilities"
- ❖ Organising and conducting training of site staff on administration issues
- ❖ Ensuring that site staff follow the administrative and consultative procedures
- ❖ Organising and attending **PSC** and other related community meetings
- ❖ Checking, translating and distributing minutes
- ❖ Resolving conflict and other social issues that may affect the project

Family Food Production

The main objective of the project is to construct storage tanks for rainwater (RWH Dams) and related rainwater harvesting works for poor households in rural area and villages, for the purpose of family food production and other household economic activities. To promote family food production, the community will require **FFP** support. To establish ongoing support and where possible, this can be done in liaison with the Department of Agriculture and/or any other existing role-players in family food production in the project area.

The typical responsibilities of the **FFP** support unit are the following:

- ❖ Introduction of the project and household mobilisation, including household vision-building (e.g. through 'helicopter planning')
- ❖ Assisting the household in the planning of the garden and initial RWH Dam positioning
- ❖ Conducting training on the establishment of gardens and RWH and irrigation methods
- ❖ Conducting training on improved soil fertility practices such as intensifying gardening through mulching, trenching, manuring etc.
- ❖ Conducting limited training on diversified production (integrated homestead farming systems elements and interaction, e.g. crop/animal, wind, frost, other factors)
- ❖ Conducting training on household nutrition practices (balanced diets to fight malnutrition and child stunting, safe food storage, affordable food processing, food preparation for maximum nutritional value, etc)
- ❖ Promoting household experimentation, and stimulation of creativity as a buffer against adversity
- ❖ Introducing and encouraging household record-keeping and self-monitoring practices

Technical Section

The preparation for construction starts with the interviewing of site staff. Required qualifications have already been mentioned under each position (see above). The appointments are made jointly with the **PSC**. (See **Appendix C1.1**)

The procedures mentioned in **Appendix C1.4**: 'Buying materials' and **Appendix C1.5**: 'Paying wages and salaries' are then implemented. Once the material is available, training of the **builders** starts. Obviously progress during this early period is slow, but generally, after two to three weeks, the trained **builders** are able to operate on their own.

The following are the major responsibilities of the Technical section:

- ❖ Training of the **Quality Assessors** and **QA Assistants** on RWH Dam siting, construction, quality requirements, etc.

- ❖ Training of **builders**
- ❖ Deciding on the RWH Dam type and shape
- ❖ Construction management (quality and quantity)

Standard Procedures for key implementation activities at Community Level

Standard procedures are given in **Appendix C1** for the key implementation activities. These procedures are to be followed strictly in the order they are written. A different colour code has been used to show which person is responsible for each function or action. Functions in **black** are to be performed by the **Project Steering Committee**, **purple** is for **ISD**, **green** is for **FFP**, **red** is for the **Bookkeeper**, **blue** for the **Storekeeper** and **pink** for the **Quality Assessor** and other **TECH staff**.

APPENDIX C1. Procedures

- C1.1 Procedures for electing **PSC** and appointing site staff
- C1.2 Combined Procedure for **ISD**, **FFP** and **TECH** staff
- C1.3 Procedures for introducing **FFP** at household level
- C1.4 Procedure for buying materials
- C1.5 Procedure for paying wages and salaries

❖ **Procedures for electing PSC and appointing site staff**

This procedure shows the process followed for the election of the **PSC** and sets out the procedure for joint appointment of site staff by the **PSC** and RIA. See **Appendix C1.1**.

❖ **Combined procedures – ISD, FFP and TECH:**

This procedure shows the chronology of steps for the entire project, and indicates the responsibilities of each section. See **Appendix C1.2**.

❖ **Procedures for introducing Intensive Family Food Production (FFP) at Households:**

This procedure explains the process of introduction of intensive Family Food Production as experienced by the household, as well as a learning group approach to prepare groups of households to be ready in batches for excavation and construction. See **Appendix C1.3**.

The **on-site administrative procedures** which are generally followed are given in **Appendix C1.4** and **Appendix C1.5**. These procedures manuals are placed on the wall in the site office where all the role-players can see it and assess their input from time to time. The books or forms used by the **Bookkeeper** and the **Storekeeper** are attached as **Appendix C3.2** and **Appendix C3.4** respectively, and are given to the individuals who use them, and can be kept where they are easily accessible by them.

❖ **Procedures for buying materials:**

Successful project implementation is impossible without good control and cost effectiveness when materials are bought. While different Implementing Agents may have their preferences for how to organise this, useful lessons have been incorporated in these Guidelines. A tried and tested procedure is fully described in **Appendix C1.4** (opening job cards, grant requests, buying and distributing materials, etc)

❖ **Procedures for paying wages and salaries:**

This procedure covers good practice for control of staff output and handling of payments in remote rural settings. The payment of builders/ building teams is also covered. See **Appendix C1.5**.

Books and Forms per team position

The only possible way to handle such complexity in such large numbers, is through the establishment and implementation of an excellent data management system. For this reason, the development and refinement of a **standard set of forms** used on site by all team members, is critical to successful and efficient project implementation.

Standard formats are presented for the Books and Forms used in the execution of the duties of each team position on the site staff. The following Books and Forms can be found in [Appendix C3](#):

- C3.3 Books and Forms used by the **Bookkeeper**
- C3.4 Books and Forms used by the **FFP Facilitator** and **FFP Assistant**
- C3.5 Books and Forms used by the **Storekeeper**
- C3.6 Books and Forms used by the **Quality Assessor** and **QA Assistant**