



TRANSFORMING IRRIGATION MANAGEMENT IN NIGERIA (TRIMING) PROJECT: EXPERIENCES FROM DEVELOPMENT OF SCHEME MANAGEMENT THROUGH OPERATIONAL WATER USER ASSOCIATIONS (WUAs)

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PRESENTATION OUTLINE

- A. Context
- B. Project Objectives
- C. TRIMING Project Overview
- D. Project Implementation Status
- E. Institutional Development
- F. Summary of Achievements
- G. Challenges



List of Acronym

WUGs	Water User Groups
WUAs	Water Users Association
Sector WUAs	Sector Water Users Associations
APEX WUA	APEX Water Users Associations
SMO	Scheme Management Office
SEC	Scheme Executive Council
ISC	Irrigation Service Charge
RBDA	River Basin Development Authority
PS	Permanent Secretary
FMWR	Federal Ministry of Water Resources
FMF	Federal Ministry of Finance
FMEnv	Federal Ministry of Environment
FMARD	Federal Ministry of Agriculture & Rural Development
FMP	Federal Ministry of Power
PSC	Project Steering Committee
PMU	Project Management Unit
NIHSA	Nigeria Hydrological Services Agency
IWRMC	Integrated Water Resources Management Commission

A. Context

Existing institutional and governance weaknesses in managing public irrigation systems in Nigeria include:

- i. Lack of revenue that can ensure cost recovery for O&M**
- ii. Lack of managerial & financial autonomy for the WUAs**



A. Context

- iii. **Lack of financial accountability from the irrigation agency staff on O&M, and**

- iv. **Lack of a legal framework that empower WUAs to take over O&M responsibilities.**



A. Context

To address the forgoing challenges, the FMWR, in 2014, delegated its authority to the RBDAs for selected public schemes to pursue key transformative initiatives for PIM.

Consequently, the TRIMING Project with the support of The World Bank was planned to:

- a. to address the underperformance of large-scale public irrigation schemes in Nigeria, and
- b. to pilot and provide lessons for reforms that would be rolled out to other public irrigation schemes across Nigeria.



B. TRIMING Project Objectives

Project Development Objectives

“The Project was set out to:

- a. improve access to irrigation and drainage services, and to*
- b. strengthen institutional arrangements for integrated water resources management and agriculture service delivery*

B. TRIMING Project Objectives

To achieve these Objectives ...

A comprehensive program for the development & implementation of a strategic and wide-ranging training programme for farmers, water user associations (WUAs) & the Irrigation Agency staff involved in O&M was designed and implemented

The overall aim is to achieve sustainable irrigation service provision across the pilot schemes.

C. TRIMING Project Overview

1. Key Portfolio Information

Bank Approval Date:	June 19, 2014
Effectiveness Date:	January 15, 2015
Original Closing Date:	30-Apr-2022
Revised Closing Date:	30-Apr-2024
Planned total cost of project implementation	USD 560.30 million

Project Steering
Committee (PSC)

Project Change
Management
Committee

Project
Management
Unit

2. Institutional Arrangement

Responsible for the overall coordination and policy guidance. Chaired by the PS of FMWR and include representatives of inter alia: FMWR, FMF, FMEnv, FMARD, FMP, Beneficiary States and RBDAs.

Responsible for technical advice to the PSC and PMU. Include representatives of the FMWR, FMARD, FMF, FMEnv, NIHSA, IWRMC, Beneficiary States and RBDAs.

Responsible for the daily coordination, supervision and general implementation of the project.

Component 1:
Water resources
management &
Dam Operation
Improvement

Component 2:
Irrigation
development &
management

3. Project Components & Subcomponents

Subcomponent 1.1: Support to Integrated
Water Resources Management in 3 RBDAs

Subcomponent 1.2: Dam Operations
Improvement and Safety for 8 Dams and
Reservoirs

Subcomponent 2.1: Irrigation Infrastructure
Investments. To improve the performance of
about 37,000 ha in 5 schemes

Subcomponent 2.2: Improving Irrigation
Management at Scheme Level. To implement a
progressive management transfer to WUAs and
autonomous professional operators

Component 3:
Enhancing
Agricultural
Productivity &
Value Chains

Component 4:
Institutional
Development &
Governance

3. *Components & Sub-compo continued...*

Subcomponent 3.1: Support to agricultural productivity and market linkages. Include improving farmers' participation in value chains through a matching grant mechanism and establishment of FMSDC in 5 schemes

Subcomponent 3.2: Support to Innovation and R&D. Applied research and introduction of innovations in 5 schemes

Subcomponent 4.1: Institutional Development and Governance. Include capacity building and training, consensus building and supporting the change process, strengthening supervision and accountability in the irrigation sector

Subcomponent 4.2: Project Management and M&E. Support to PMU, coordinating institutions within Government, M&E activities and development of an Information System

D. Project Implementation

For COMPONENT 2: Irrigation Development & Management

At Project inception, there was no National Legislation that allowed the implementation of the changes envisaged by the Project, such as *Irrigation Service Fee (ISF) collection and retention at Scheme Level (Ring-Fencing)*

D. Project Implementation: **For COMPONENT 2: Irrigation Dev & Mngt**

To achieve the desired goals without the required legislation, the Federal Ministry of Water Resources of Nigeria delegated it's Authority for the collection and spending of ISF to the pilot schemes.

D. Project Implementation: **For COMPONENT 2: Irrigation Dev & Mngt**

To implement the delegated Authority, the following legal documents were developed by the Project, to allow for the needed transformation:

- i. Irrigation Scheme Constitution**
- ii. Sector WUA Constitution**
- iii. APEX WUA Constitution**
- iv. MoU between the SMO & APEX WUA for establishment of SEC**



D. Project Implementation: **For COMPONENT 2: Irrigation Dev & Mngt**

Legal documents for the needed transformation:

- v. SEC By-Laws**
- vi. Infrastructure Transfer Agreement**
- vii. Bulk Irrigation Water Service Contract**
- viii. Service Level Agreement (SLA) between Sector WUA & APEX WUA**
- ix. Service Level Agreement (SLA) between Sector WUA & RBDA**



D. Project Implementation: **For COMPONENT 2: Irrigation Dev & Mngt**

Legal documents for the needed transformation:

- x. Service Level Agreement (SLA) between Sector WUA & SEC**
- xi. Service Level Agreement (SLA) between APEX WUA & SEC**
- xii. Service Level Agreement (SLA) between RBDA & SEC**



D. Project Implementation: For COMPONENT 2: Irrigation Dev & Mngt

Consequently, extensive training program became necessary, and included the following stakeholders:

- APEX WUA C'mtte Members & Employees
- Scheme Management Office Employees
- Various personnel within the RBDA.



Trained in the following areas:



D. Project Implementation: For COMPONENT 2: Irrigation Dev & Mngt

- i. Organization and Structure of WUA
- ii. Water Management at Field Level
- iii. Operations and Maintenance
- iv. Financial Administration
- v. Water Fee Collection
- vi. GIS/Landholding Registry
- vii. Conflict Resolution
- viii. Legal Aspects
- ix. Decision Support Systems
- x. Irrigation Service Pricing

E. Institutional Development

The general Institutional Development Objectives of the Project are to:

- a. Establish the necessary organizations & institutions,
- b. Develop operational, management and maintenance processes systems, &
- c. Capacitate all farmers, farmer representatives, WUA employees and RBDA personnel involved with the schemes

E. Institutional Development

The general Institutional Development Objectives of the Project are to:

- d. Establish functional organizations, institutions and operational modalities for:
 - ✓ efficient & effective irrigation water supply **on a cost recovery basis**
 - ✓ global best practice in Irrigation Management Transfer (IMT) and Participatory Irrigation Management (PIM).

... the idea is to achieve inclusive, socially acceptable, and technically-and-financially-sustainable scheme functioning.

E. Institutional Development

The Institutional transformation supported the establishment of the following entities necessary for the organization of the farmers:

- a. WUGs
- b. WUAs
- c. APEX WUA
- d. SMO
- e. SEC
- f. APEX & Sector WUA Employees



E. Institutional Development

Except for the WUA Employees, all positions at all the entities are on a volunteer basis (unpaid). - *This appear ultimately to be accompanied by some challenges, which seem to be raising its head already.*

Volunteer officials in some of these entities seem to be expecting some form of compensation, as responsibilities and workload are already increasing



Operational and Maintenance Modalities of the Transformation Initiative

- a. The WUAs will operate and maintain the tertiary infrastructure within their respective Areas of Operation
- b. The RBDAs, through the SMOs will maintain the main irrigation infrastructure from the outlet of the dam to the intake of the WUAs
- c. RBDA Headquarters will maintain the dams and reservoirs



Financial Arrangement of the Transformation Initiative

The collected fee is currently shared as follows:

- a. 8.5% of the ISC for the RBDA HQ
- b. 25% for the Federal Government
- c. 66.5% for the WUAs to pay for Bulk Water Charges.

Lessons from the Transformation Initiatives



The WUAs have started carrying out maintenance exercises across the pilot schemes, which is a significant development, in view of where the farmers are coming from, when Govt used to be responsible for virtually all O&M activities.

Lessons from the Transformation Initiatives

These maintenance exercises have been quite successful, with farmers contributing, and have involved basic maintenance for cleaning of canals, channels and drains. In most cases, the WUAs have done a very good job on this.



Lessons from the Transformation Initiatives

Because the infrastructure is new, maintenance to date has been limited to cleaning of canals, channels and drains, which is very straight-forward, requires little expense outlay and is really about organizing & supervising the labour to undertake the activity. This is a huge step for the WUAs to be able to undertake this maintenance.

However, as the infrastructure ages, more complex maintenance activities will be required. We believe the WUA Irrigation Technicians that have been hired to support the WUAs will be able to “step up” and take on these tasks With guidance from the Irrigation Agency & the SMO, moving forward

F. Summary of Achievement

For COMPONENT 2: Irrigation Development & Management

The Project has achieved the following:

- a. Rehabilitated & Expanded 25,002 ha





24km East Branch Canal- KRIS- Before



24km East Branch Canal- KRIS- Now

F. Summary of Achievement

As a result, the Project has achieved the following:

- a. A total of about 930,000 direct project beneficiaries (DPB) have been reached through development and or rehabilitation of irrigation facilities across all schemes.



F. Summary of Achievement

As a result, the Project has achieved the following:

- b. Created and strengthened about 839 WUAs & Groups across all TRIMING intervention schemes

F. Summary of Achievement

Project achievement :

- c. Signed Transfer Agreement with 16 qualified Sectors, out of 35, across all schemes. The agreement signify transfer of **O&M** responsibilities to WUAs (for all structures downstream of the main canals) and also qualified them to obtain cascading grants.

As a result, farmers have assumed responsibility for O&M at their respective Sectors, and are beginning to enjoy the desired AUTONOMY at Scheme Level

F. Summary of Achievement

Project achievement :

- d. Collection of Irrigation Service Fee (ISF). About N123 million collected as at July 31, 2023
- e. About 100,000 number of farmers have been trained in scheme (O & M) across all TRIMING intervention schemes. The training covers all key areas of O&M in about 30 modules.
- f. Draft WUA Regulation prepared, awaiting the passage of the National Water Resources Bill by the Nigerian Parliament

SUMMARY OF GENERAL ACHIEVEMENTS

RESULTS FRAMEWORK INDICATORS	Unit	ACHIEVED
Direct project beneficiaries	No	903,535
Area provided with irrigation and drainage services	Ha	25,002
Cropping intensity	%	175.2
Irrigation fee recovery rate by WUAs	%	35
Dams meeting international safety standards	No	4
Staff Trained in Dam Safety Assurance and Dam Management	No	145
Rivers (installed) with discharge gauging stations	No	8
Rivers with channel carrying capacity improved, and riparian population protected against flooding	No	6
Apex WUAs/WUA Federations (WUAFs) and RBDAs jointly managing fund for financing maintenance of the bulk infrastructure	No	0

Summary of Achievements continued...

RESULTS FRAMEWORK INDICATORS	Unit	ACHIEVED
Operational water user associations created and/or strengthened	No	839
Farmers actively participating in WUA affairs (ie. paying part or all of their dues percentage)	%	76.4
Clients who adopted an improved agr. technology promoted by project	No	90,700
Yield of Main Product (rice)	Ton	6.08
Commercial partnerships established with off-takers	No	14
Project monitoring and publically disseminated scorecards for each scheme are debated annually, drawing on an information system which facilitate information on reform progress, results, and resource	No	4

Summary of Achievements continued...

IMPACT INDICATORS	Unit	BASELINE	ACHIEVED (2022)
Farmer net benefit per hectare cultivated			
Rice	₦/Ha	76,092.75	565,718.28
Maize	₦/Ha	38,410.50	399,363.24
Tomato	₦/Ha	223,489.50	765,393.09
Onion	₦/Ha	245,702.00	599,420.03
Scheme Financial Self-sufficiency (%): Revenue from irrigation service fee/Total O&M expenditure	%	24.19	51.3
Total household expenditure	₦	81,451.49	484,648.31
Ratio of healthcare expenditures to total household expenditure	%	4.04	6.67
Ratio of education expenditures to total household expenditure	%	5.19	7.41

Summary of Achievements continued...

IMPACT INDICATORS	Unit	2017	ACHIEVED (2022)
Ratio of food expenditures to total household expenditures	%	49.08	42.29
Farm assets (equipment) in nature and in value	₦	145,525.60	388,083.15
Household assets (roofing, floor, etc) in nature and in value	₦	40,408.060	160,252.9
Ranking of key farmer/household priorities		3.15	4
Attitudes of farmers (especially) youths towards irrigation farming relatively to other migration		3.30	3.99
Satisfaction of farmers regarding the results of the project on their living standard		3.12	3.95
Famers' Debt service	%	17.51	9.06
Non-farm source of Income	₦	33,152.04	102,385.65

D. Challenges

A. Institutional Development Challenges

- i. The WUA Employees have a low rate of pay for now, with the hope rates may improve with increased fee collection, giving room to the more competent employees to leave to find higher paying positions around - which is beginning to happen already**
- ii. The WUGs representatives are the backbone of the WUAs and serve as a link between the general farming community and the WUA employees/management committees, & therefore have dual responsibilities: the scheme operation at the irrigation block level and the billing and collection of irrigation service fees.
*Logically, this is a substantial commitment for an unpaid position.***

D. Challenges continued...

A. Institutional Development Challenges

- iii. Transparency in the joint management of fund for financing the maintenance of the bulk infrastructure by the Apex WUAs/WUA Federations (WUAFs) and RBDAs**
- iv. Farmers' misconception of cascading grant as replacement to ISF despite persistent sensitization and engagements.**
- v. Issues related to management of transformation changes, especially acclimatization with new roles by the frontline institutions and organizations, such as RBDAs and WUAs - *"stereotype to the norms"***
- vi. Sustainability of ISF recovery rate: Right *pricing, ability* and *willingness* interdependencies.**

D. Challenges continued...

B. Project – wide Challenges

- i. Security challenges in some parts of Project areas, contributing to serious implementation delays.**
- ii. Non passage of the National Water Resources Bill by the Parliament.**
- iii. The Un-authorized water diversion by farmers.**
- iv. Difficulties of stakeholders, particularly Government Agencies, in adapting to required changes. A lot of the Officials feel their jobs are at stake, with the advent of the WUAs taking over O&M responsibilities**
- v. Low awareness of the Delegation of Authority issued by the FMWR to WUAs, on the part of enforcing agencies (Area Courts, Nigeria Police, etc) leading to weak fee collections.**

SECTOR 34 Secondary Canal BEFORE AND AFTER- KRIS



FARMER FIELD DAY, RICE LEARNING PLOT SHOWING LINE TRANSPLANTING.



Thank you for your kind attention



