



EIB's investment in the water sector in ACP countries

Malawi Peri-Urban Water Supply and Sanitation Project



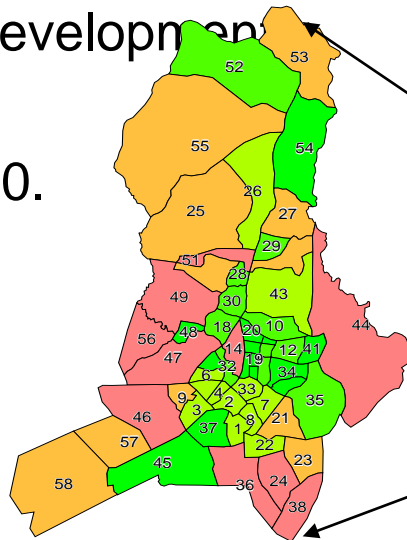
Alfonso CHIKUNI
Wellington MITOLE

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1. Background

Lilongwe Water Board

- Supplies water to the City of Lilongwe with population of approximately 700,000.
- Incorporated under Malawi Water Works Act No. 17 of 1995.
- Under Govt. of Malawi, Ministry of Irrigation and Water Development.
- Meter connections: 44,000.
- 2013 coverage is 75%.



National Water Development Programme

- Duration 2009-2015;
- Government of Malawi (GoM) ; the purpose is to increase access to sustainable **water supply and sanitation services through the** NWDP II implemented through Ministry of Water Development and Irrigation;
- Budget of US\$258 Million;
- Development partners: EU, EIB, AfDB, OPEC fund, UNDP, JICA, IDA, Netherlands/Unicef, GoM

2. Situation

Physical Investment: Treatment Works 1 and reservoirs

Conditions Before rehabilitation

- Treatment Works could not operate at design capacity of 35,000m³/day;
- Hier water losses, as the penstocks and valves could not close;
- Concrete structures and equipment dilapidated
- sludge blanket system could not function;
- The settling tank slightly tilted;
- The chemical room was in bad condition.



Cracks and leaks from a rigid connection

Issues and Effects of the problems

Utility level

- Inefficient billing system: current consumption and arrears not well reconciled
- No network monitoring system
- Slow response to system problems and community complaints
- Inefficient Infrastructure



Old clarifiers before rehabilitation

Effects of the Problems

- People paid more for water as higher tariffs were charged to make up for poor payment;
- Disconnection of supply by the utility;
- Households reverted to unsafe and expensive sources



Malawi Peri Urban Water Supply and Sanitation Project

- The EIB, Lilongwe Water Board, Blantyre Water Board, WaterAid are the Partners in the application of ACP Facility
- The project's measurable impact on the living conditions by bringing **safe drinking water to 723,000** additional people and **basic sanitation to 468,000 people** in low income areas in the cities of Blantyre and Lilongwe in a sustainable manner by 2013.
- Total Project Cost: €32,000,000

€ Million

Contribution from borrower	1,069,568
Loan by the EIB to Borrower	15,750,000
Grant ACP-EU Water Facility	14,930,432
Technical Assistance	250,000

3. Project Approach and Objectives

The Project's action focus ;

1. Physical investment in upgrading infrastructure
2. Institutional capacity development
3. Cooperation with local organisations for distribution in the low-income areas
4. Improve access to improved sanitation

Objectives;

1. To assist the Water Boards of Lilongwe and Blantyre in providing water and sanitation services to the people living in low-income areas of both cities, and
2. To improve service delivery and efficiency of the two Water Boards.

4. Key Activities – Water Supply

1. Implementation of Investment Programme: Contract Value: €5,917,260.28
(Rehabilitation and renewal works of treatment works and reservoirs)

2. Extension of water supply service and Sanitation to Low Income Areas (LIAs)

3. Reduction of Non Revenue Water

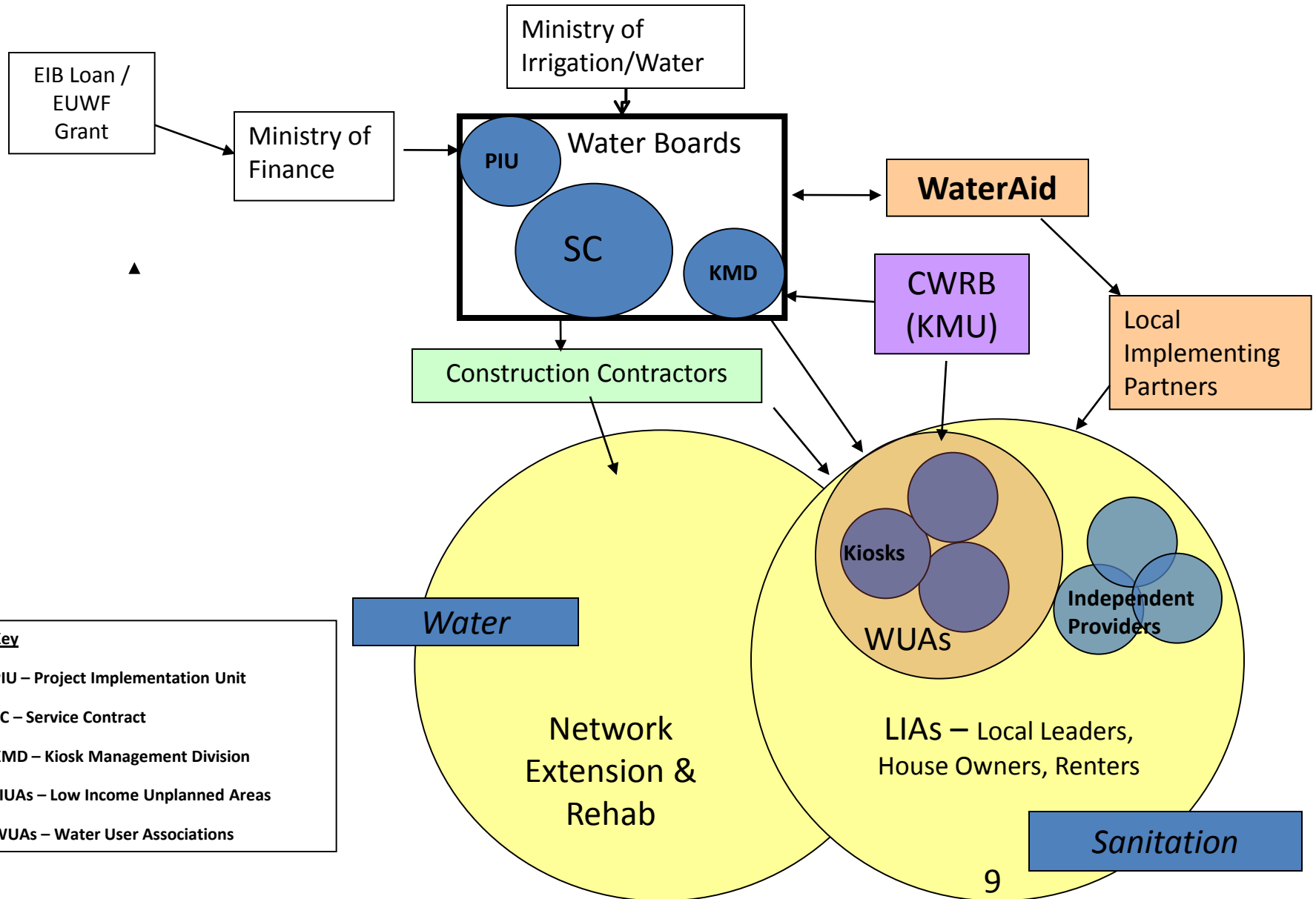
- Hydraulic Model
- GIS Mapping
- Measures for loss reduction
- Customer metering

- Illegal connections
- Active leak detection and leak repair
- Procurement of Non-Revenue Water Goods

4. Financial & commercial mgt

- Integrated Accounting Software
- Customer Database
- Tariff Calculation Model
- Meter Reading Process
- Revenue Collection

Implementation Approach



5. Key Outcomes

- Non revenue water (NRW) at 35% (Baseline:39%)
- % Increase in collection ratio at 95% (Baseline: 72%)
- No of staff per 1000 connections at 8 (Baseline: 16)
- Tariff Model: Done and used in new tariff (Baseline: Not available)
- No. of VIPs constructed: 45,866
- WUAs ability to manage water supply successfully, reduce arrears
- Good practice in peri-urban water & sanitation management

6. Key Outputs

1. Rehabilitation and Renewal of Treatment Works 1 and reservoirs

(a) Production Capacity

Before rehabilitation	After rehabilitation
27,600 m ³ /day	35,000 m ³ /day

New Highlift pumps at Treatment Works 1



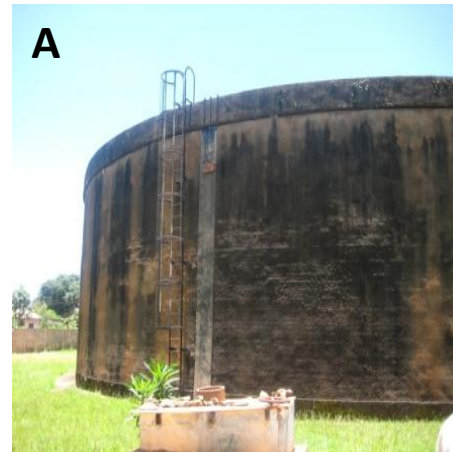
Rehabilitated Clarifiers

(b) No. of reservoirs rehabilitated

12

55,786 m³

Total capacity



4545m³ Reservoir at Mtunthama before (A) and after (B) rehabilitation

Final Contract Value: €5, 258,572.75 Contract period: July, 2011-Mar₁ 2013

Extension of supply in – LIAS -Water Points Mapping -



Lilongwe Water Kiosk Map (LWB)

LWB Water Kiosk

Water Kiosk Information	
Reference Number	KLD0940
District	Salima
Sub District	Khombedza
Village	Chipuza
Number of taps	4
Functionality	y

Key

- Existing Water Kiosk
- Proposed Water Kiosk

Acceptable access distance

Key: Percentage of waterpoints non-functional

- 0 - 20%
- 21 - 40%
- 41 - 60%
- 61 - 80%
- 81 - 100%

● Functional waterpoint
● Partially functional waterpoint
● Non-functional waterpoint
■ No data

2. Extension of water supply service to Low Income Areas (LIAs)

Water Kiosks

Target No. to be constructed

372

All sites geo-referenced

Commissioned

178

Completion certificates produced

Under Construction

194

Construction underway
Works at various stages

Extension of network is ongoing targeting 194 kiosks



Poor Sanitation



- Promoting adoption of improved sanitation
 - move from open defecation
 - Upgrade from traditional latrines
 - Improve safety, dignity and health status

Supply of hardware and services



- Slab casting and latrine construction/building
- Sanitation and a business - Marketing and business management
- Introduction of new services

Other services



- Slab Casting, Latrine building
- Ecosan – manual excavation of humanure
- Solid waste collection
- Pit latrine emptying - VIP and deep latrine

Promotion activities



- Volunteers
- Road shows
- Music, Dance, poems and drama
- Information Education and Communication materials
- Competition with prizes
- School clubs

My New Toilet!



- Different latrine technology
 - invest in latrines technology of own choice
 - within one's budget

Sanitation - Success

- Increased adoption of improved sanitation facilities – 9,585 latrines, 47,925 beneficiaries
- Health and social benefits being attained
- Increased visibility of the project - Global and national events - World Toilet - Global Hand washing - World Water Day and development of IEC materials
- Sanitation marketing strategy and hygiene promotion campaign – The way forward for Malawi
- Improvements adoption of improved hygiene behaviour
- Partner capacity improvements

7. Challenges

- Availability of unprotected drinking water sources
- High water tariffs in LIA due to system of delivery
- Low prioritisation of sanitation by households
- Prevalence of renters and seasonal occupiers
- Land tenure – unplanned areas
- Limited role, investment and prioritisation of LIA by the City Authorities
- Lack of enforcement of city by-laws
- Slow implementation due to bureaucracy

8. Conclusion

- Reduction in NRW is becoming institutionalised realising additional water
- Rehabilitation of facilities has realised additional 7,000 m³/day
- Working ratio has improved from 0.9 to about 1.3
- Optimisation of production facilities has increased daily production by about 12%
- KMU in Lilongwe replicated in Blantyre
- Sanitation marketing is GoM acceptable approach to urban sanitation
- Increased number of people in LIAs accessing improved water and sanitation services
- Reduction of cholera cases in the two cities
- Strengthening of working in partnerships – IFI, Multi lateral donors,, INGO, private sector, utility and local NGOs

Thank you very much

Alfonso Chikuni
Projects Implementation Unit Manager
Lilongwe Water Board
P. O. Box 96, Lilongwe, Malawi

achikuni@lwb.mw
alfonso_chikuni@yahoo.co.uk
+265999953215
+2651750236

Wellington Mitole
Urban Programme Manager
WaterAid Malawi
P/Bag 364, Lilongwe, Malawi

WellingtonMitole@wateraid.org
wcmitole@hotmail.com
+265995506526
+2651750606