



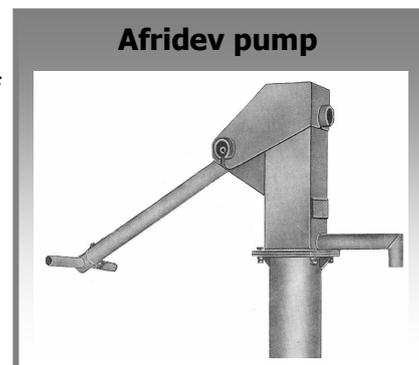
Maintenance System Project In Malawi

Objectives of the project since 1991

Inter Aide and Baseda begun the maintenance projects in 1991 as part of WASH projects. In 2008 the Maintenance Projects became independent.

Our objectives are:

- ✘ To improve health and sanitary living conditions of vulnerable rural families,
- ✘ To increase access to maintenance services of water points,
- ✘ To increase protected water points' functionality rate.



Main activities

We act at 2 levels:

- ✘ To insure the maintenance of Afridev and Malda pump in the villages thanks to a network of Area Mechanics:
 - ✘ This Area Mechanics are trained and equipped,
 - ✘ They are independent workers but practice reasonable prices for communities,
 - ✘ We insure a monthly follow up of their work in order to support them and to develop and evaluate the activities in the district,
 - ✘ We work with officials and communities to inform them on existing services for maintenance.
- ✘ To improve the availability of spare parts thanks to a network of partners shops:
 - ✘ Selling points are selected and trained on pump maintenance, hygiene and stock management,
 - ✘ We organize the spare parts supply system
 - ✘ We monitor the sales



Geographical situation

The maintenance projects are operational in 5 districts in Malawi:

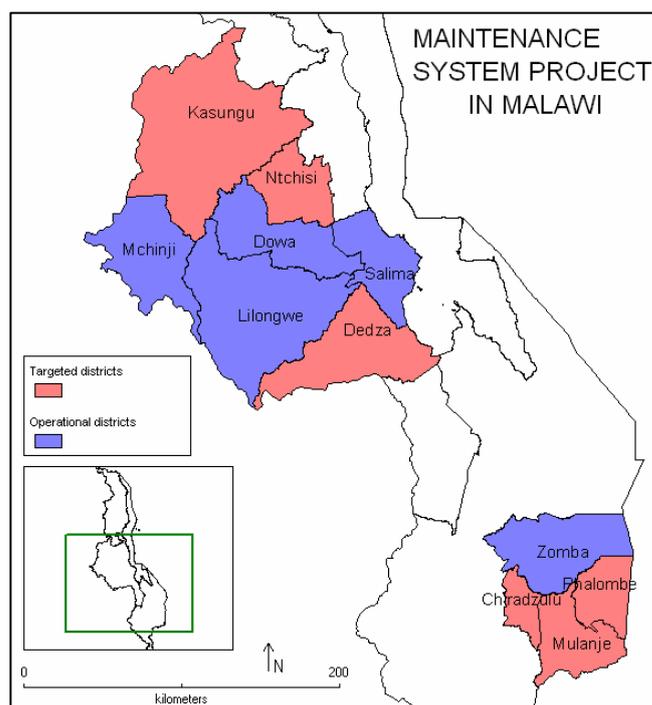
- ✘ Dowa district,
- ✘ Lilongwe district,
- ✘ Mchinji district,
- ✘ Salima district,
- ✘ Zomba district.

We target other 6 districts before 2012:

- ✘ Chiradzulu district,
- ✘ Dedza district,
- ✘ Kasungu district,
- ✘ Mulanje district,
- ✘ Ntchisi district,
- ✘ Phalombe district,

The network is now composed of:

- ✘ 149 Area Mechanics,
- ✘ 85 Partner shops,





Maintenance System Project Dowa, Mchinji, Salima and Kasungu districts

Composition of the team

Baseda is the local partner of Inter Aide. They lead the maintenance projects in Lilongwe district and Zomba district.

Inter Aide leads the project in Dowa, Mchinji and Salima district. We will soon open it in Kasungu and Ntchisi district.

Our team is composed of 5 persons:



Franck Banda
Maintenance Assistant
in Mchinji District



Ernest Chimbia
Maintenance Assistant
in Salima District



Spencer Mazemero
Maintenance Assistant
in Dowa District



Marie Bouvet
Project officer



Macmillan Chikhoza
Maintenance Coordinator

Shop Management

In order to be affordable to the communities, the prices of spare parts are also fixed by the project:

| Prices for MALDA spare parts | Prices to community |
|------------------------------|---------------------|
| Handle rod | 920 |
| Handle sleeve | 3,950 |
| Pipe coupling (Socket) | 360 |
| Foot valve (Body) | 1,180 |
| Plunger adaptor | 580 |
| Rod Coupling | 380 |
| 1 m Rod | 1,700 |
| 2 m Rod | 2,160 |
| Guide bush (Main bush) | 1,050 |
| Plunger seal | 380 |
| Return ring | 360 |
| O-ring | 270 |
| Shock absorber | 680 |

Maintenance services

The Area Mechanics can propose to the community 3 kinds of contracts:

- ✘ Repair contract in case of break down,
- ✘ Preventive maintenance contract for one year
- ✘ Community Based Maintenance training

They charge between 800 and 1 500 MK depending on the type of the intervention. The community have to provide the spare parts for the repair.

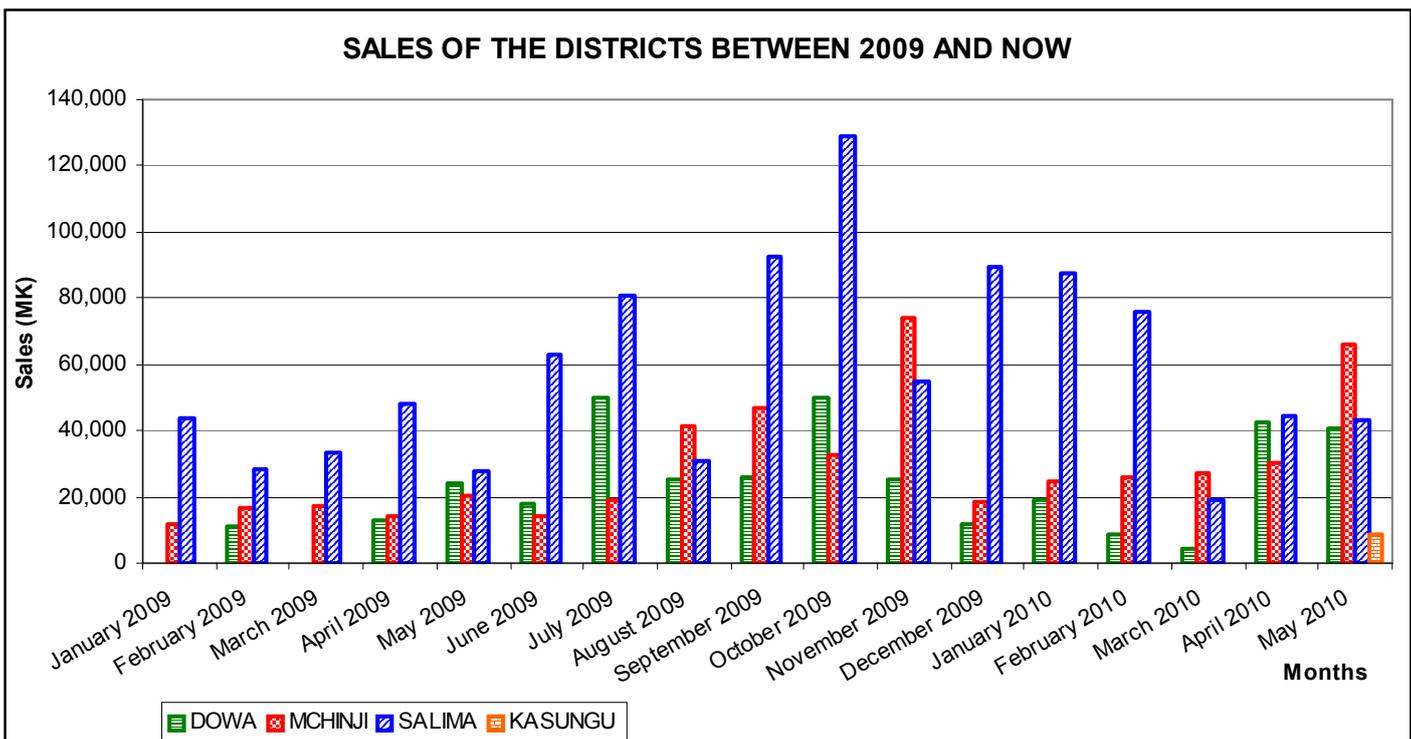
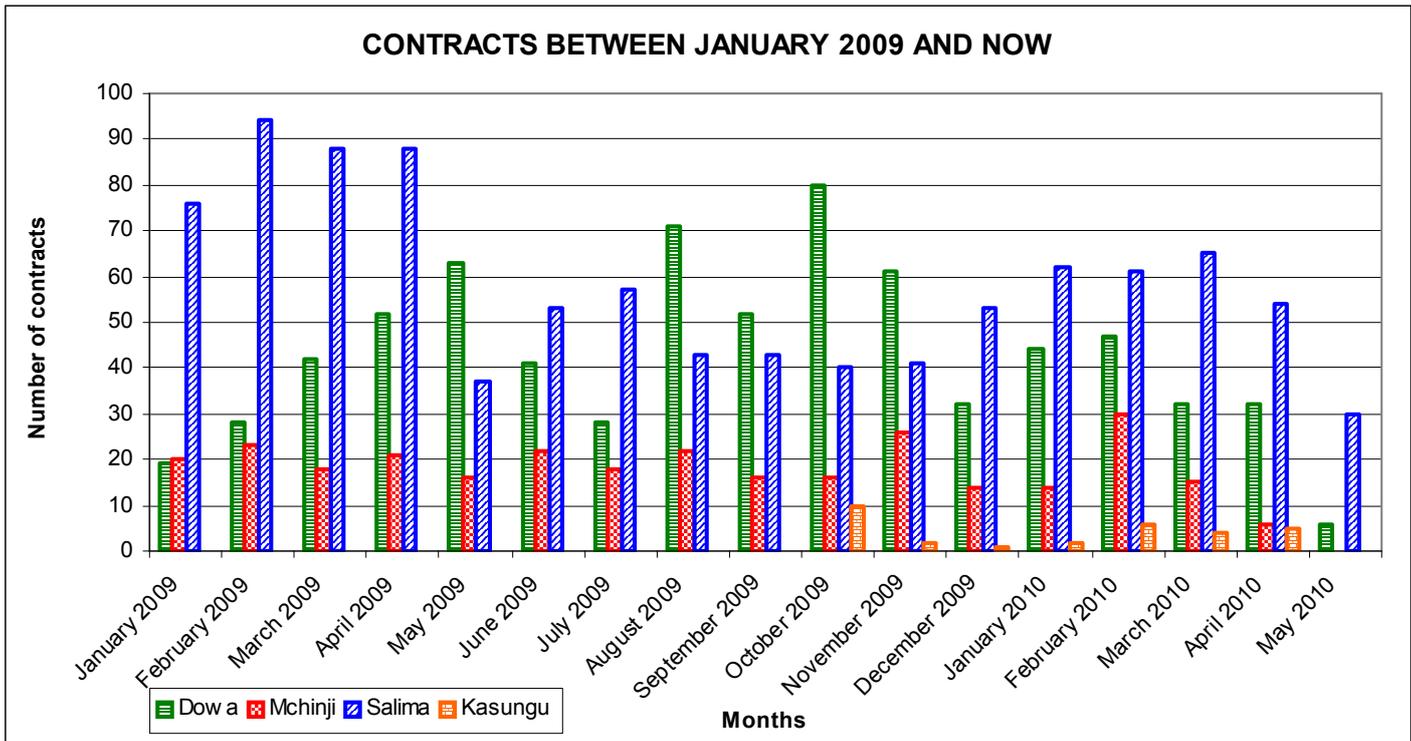
| Prices for AFRIDEV spare parts | Prices to community |
|--------------------------------|---------------------|
| Bobbin | 88 |
| Bolt and nut (10x35) | 70 |
| Bolt and nut (12x40) | 70 |
| Bush bearing | 188 |
| Cup seal | 100 |
| Cylinder naked | 7,300 |
| Double end socket | 235 |
| Fishing tool | 1,222 |
| Flat spanner | 270 |
| Hook for foot valve | 500 |
| Fulcrum pin | 1,295 |
| Hanger assembly | 1,492 |
| Hanger pin | 998 |
| O-ring | 47 |
| Plunger body plastic | 820 |
| Plunger body brass | 1,500 |
| Pump handle | 6,873 |
| Pump head | 9,546 |
| Pump head cover | 2,526 |
| Pump pedestal | 9,165 |
| PVC raising main pipe | 1,510 |
| Rod centraliser | 135 |
| Rod galvanized | 1,290 |
| Rod stainless steel | 3,348 |
| Rod plunger stainless steel | 1,833 |
| Rope | 1,800 |
| Socket spanner | 1,222 |
| Solvent cement(100ml) | 240 |
| Solvent cement(200ml) | 410 |
| Suction pipe | 1,400 |
| U-seal | 58 |



Maintenance System Project Dowa, Mchinji, Salima and Kasungu districts

Comparison of the results in the 3 districts

These charts present the number of contracts and the sales of spare parts in the districts of Dowa, Mchinji and Salima since January 2009. As we began to train Area Mechanics in the south of Kasungu district (Santhe) some contracts began in Kasungu from October 2009.



Maintenance System Project In Mchinji district

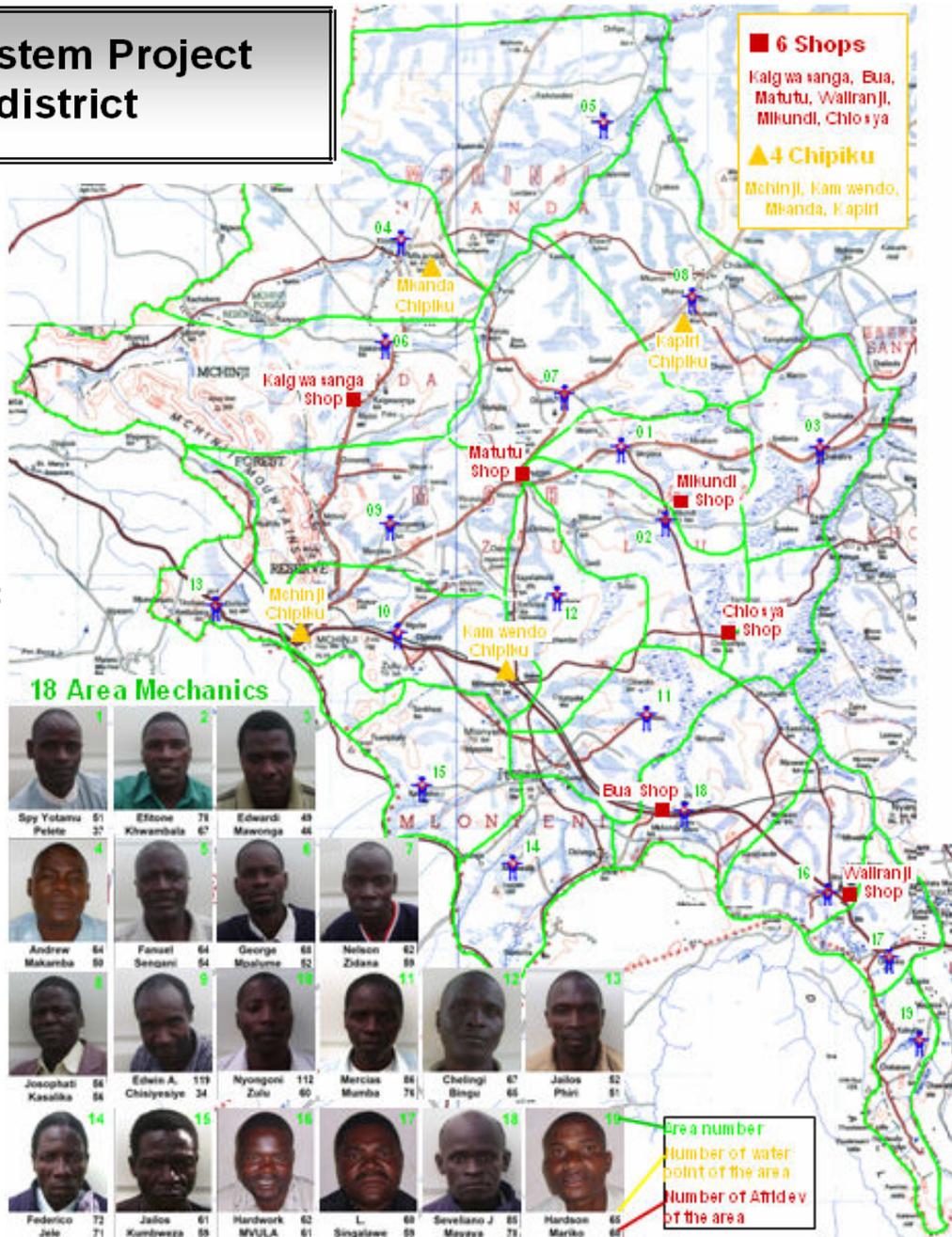


Mchinji district Since April 2008

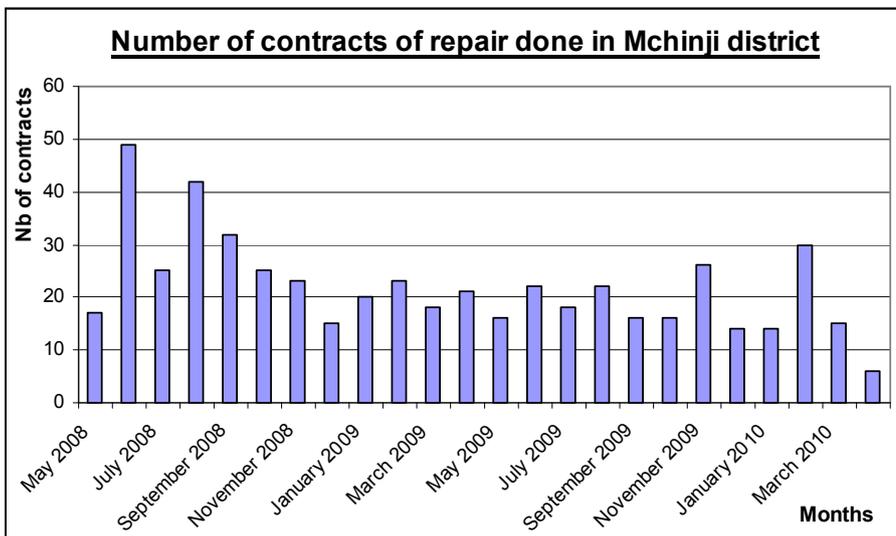
In partnership with the water department, we implemented the project in Mchinji District in April 2008.

Now, the network is composed of:

- ✘ 19 Area Mechanics
- ✘ 6 partners shops
 - ✘ Kaigwasanga
 - ✘ Bua
 - ✘ Matutu
 - ✘ Waliranji
 - ✘ Mikundi
 - ✘ Chiosya
- ✘ 4 Chipiku stores:
 - ✘ Mchinji
 - ✘ Kamwendo
 - ✘ Mkanda
 - ✘ Kapiri



The Area Mechanics have done more than 525 repairs since the opening of the project in Mchinji district and the shops have sold more than 1025 U-seal:



| Main spare parts sold | Total |
|-------------------------------|-------|
| A_Bobbin | 57 |
| A_Bush bearing | 469 |
| A_Cup seal | 91 |
| A_Cylinder naked | 12 |
| A_Double end socket | 116 |
| A_Fulcrum pin | 87 |
| A_Hanger pin | 21 |
| A_O-ring | 93 |
| A_Plunger body brass | 24 |
| A_Plunger body plastic | 116 |
| A_PVC raising main pipe | 20 |
| A_Rod centraliser | 651 |
| A_Rod galvanized | 170 |
| A_Rod plunger stainless steel | 7 |
| A_Rod stainless steel | 3 |
| A_Solvent cement(100ml) | 126 |
| A_Solvent cement(200ml) | 23 |
| A_U-seal | 1,025 |

Maintenance System Project In Salima district



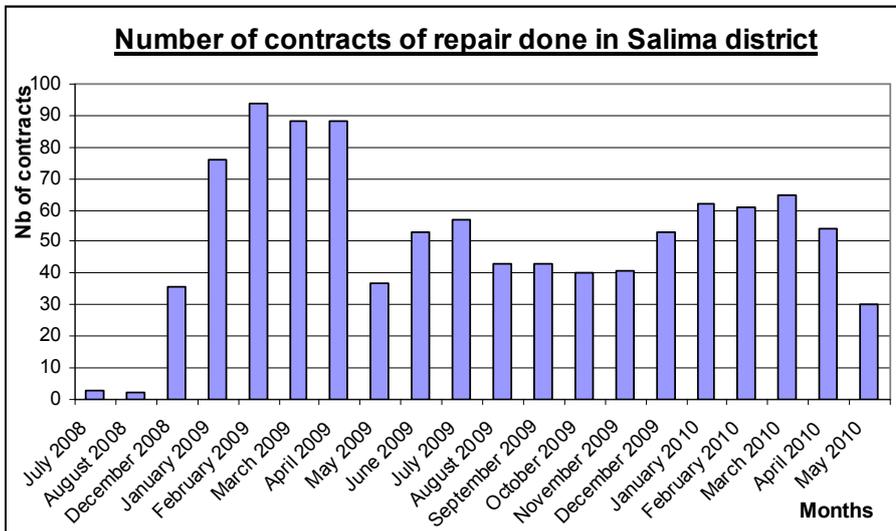
Salima district Since December 2008

In partnership with the water department, we implemented the project in Salima District in December 2008.

Now, the network is composed of:

- ✘ 28 Area Mechanics
- ✘ 7 partners shops
 - ✘ Lifidzi
 - ✘ Makionu
 - ✘ Maweru
 - ✘ Ngodzi
 - ✘ Salima
 - ✘ Sengabay
 - ✘ Siyasiya
- ✘ 2 Chipiku stores:
 - ✘ Benga
 - ✘ Mvera

The Area Mechanics have done more than 1026 repairs since the opening of the project in Salima district and the shops have sold more than 1368 U-seal:



| Main spare parts sold | Total |
|-------------------------------|-------|
| A_Bobbin | 262 |
| A_Bush bearing | 643 |
| A_Cup seal | 135 |
| A_Cylinder naked | 9 |
| A_Double end socket | 200 |
| A_Fulcrum pin | 58 |
| A_Hanger pin | 25 |
| A_O-ring | 194 |
| A_Plunger body brass | 29 |
| A_Plunger body plastic | 178 |
| A_PVC raising main pipe | 108 |
| A_Rod centraliser | 500 |
| A_Rod galvanized | 213 |
| A_Rod plunger stainless steel | 9 |
| A_Rod stainless steel | 36 |
| A_Solvent cement(100ml) | 154 |
| A_Solvent cement(200ml) | 93 |
| A_U-seal | 1,368 |