



protos

it all begins with water

Drinking water and Solar Energy pilot project Mali, Mopti

WWF 8 Brasilia

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- **Experience and presentation Protos**
- **Pilot project Mali**
- **Partnerships**
- **Realizations**
- **Conclusions**

Experience and presentation Protos



Experience and presentation Protos

Key figures 2016

Number of programme beneficiaries in developing countries

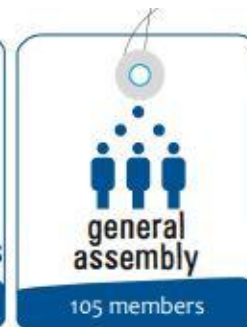


Number of management structures 2014-2016



Financial

Expenditures



Pilot project Mali 2014-2016

Pilot: 2 with solar energy for 800 persons

Access to drinking water for 43.500 persons or
Construction of 108 Manual drillings

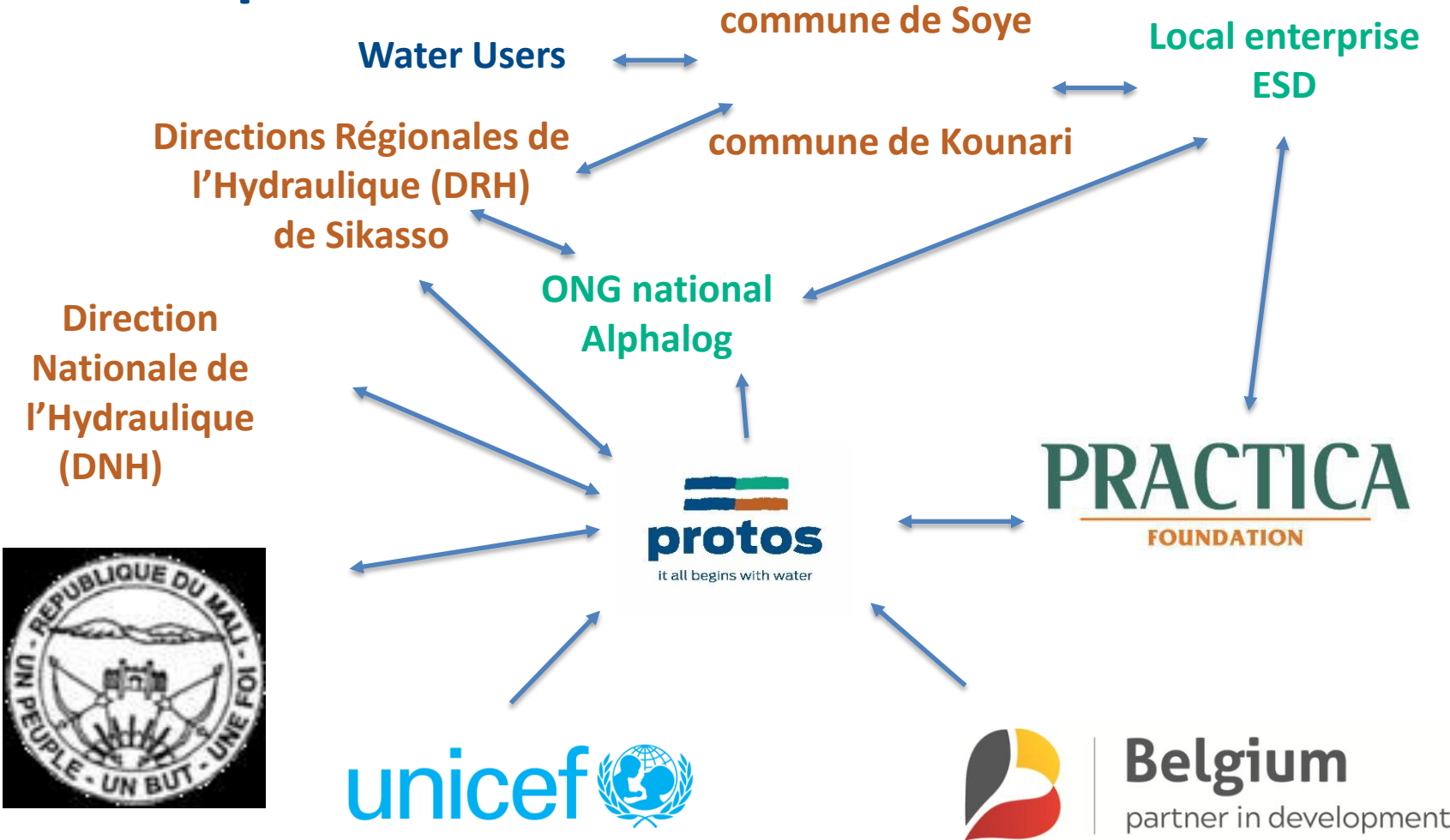
Pilot: 2 communities Kalassirou and Sogopa Ouro Hamadi

Capacity building: professional and technically skilled entrepreneurs

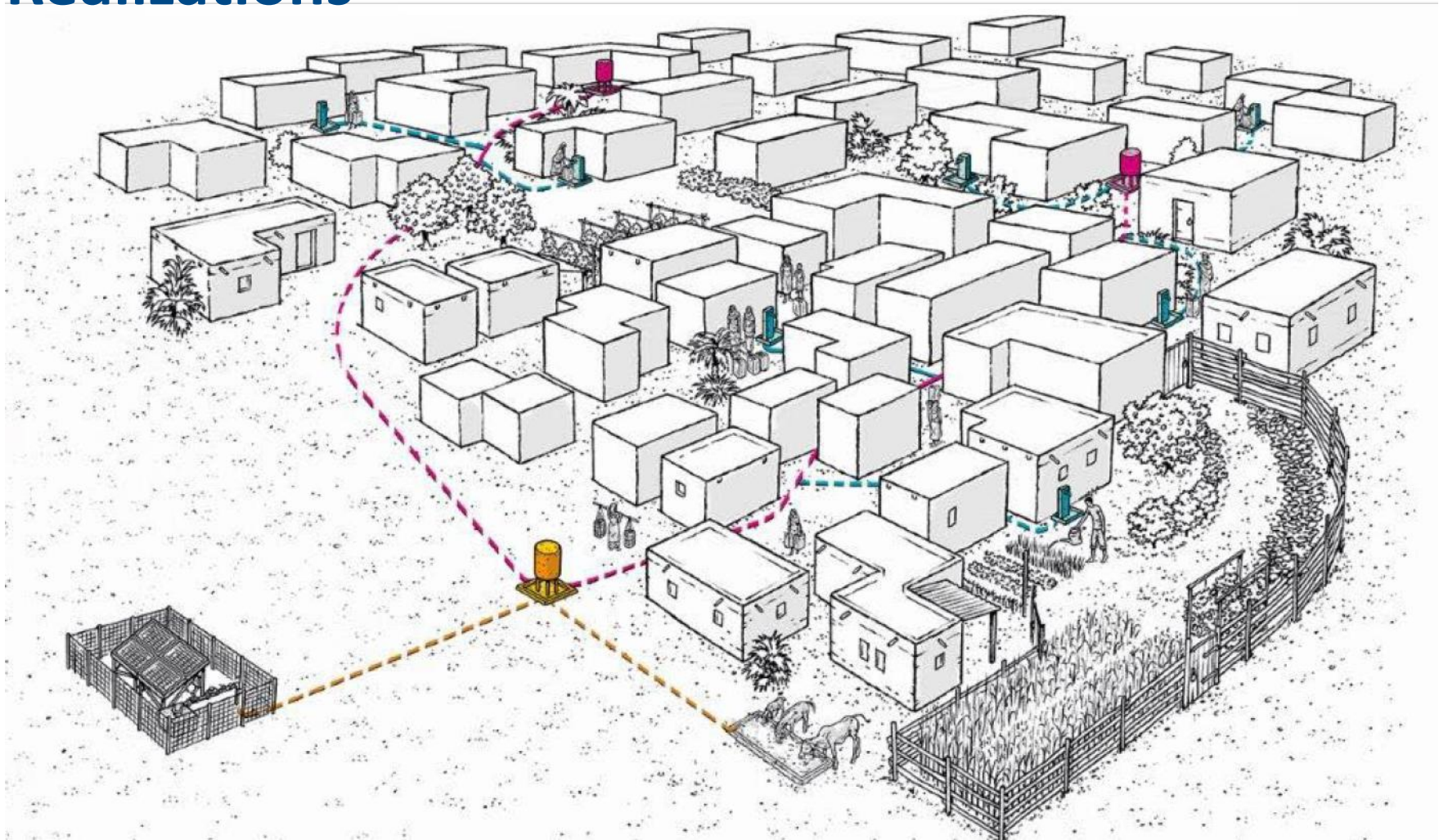
Cooperation with governments local to national

Objective: pilot on manual drilling with solar energy instead of human power

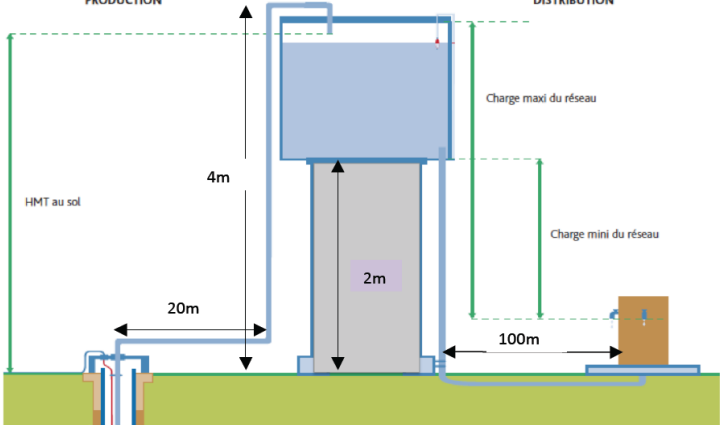
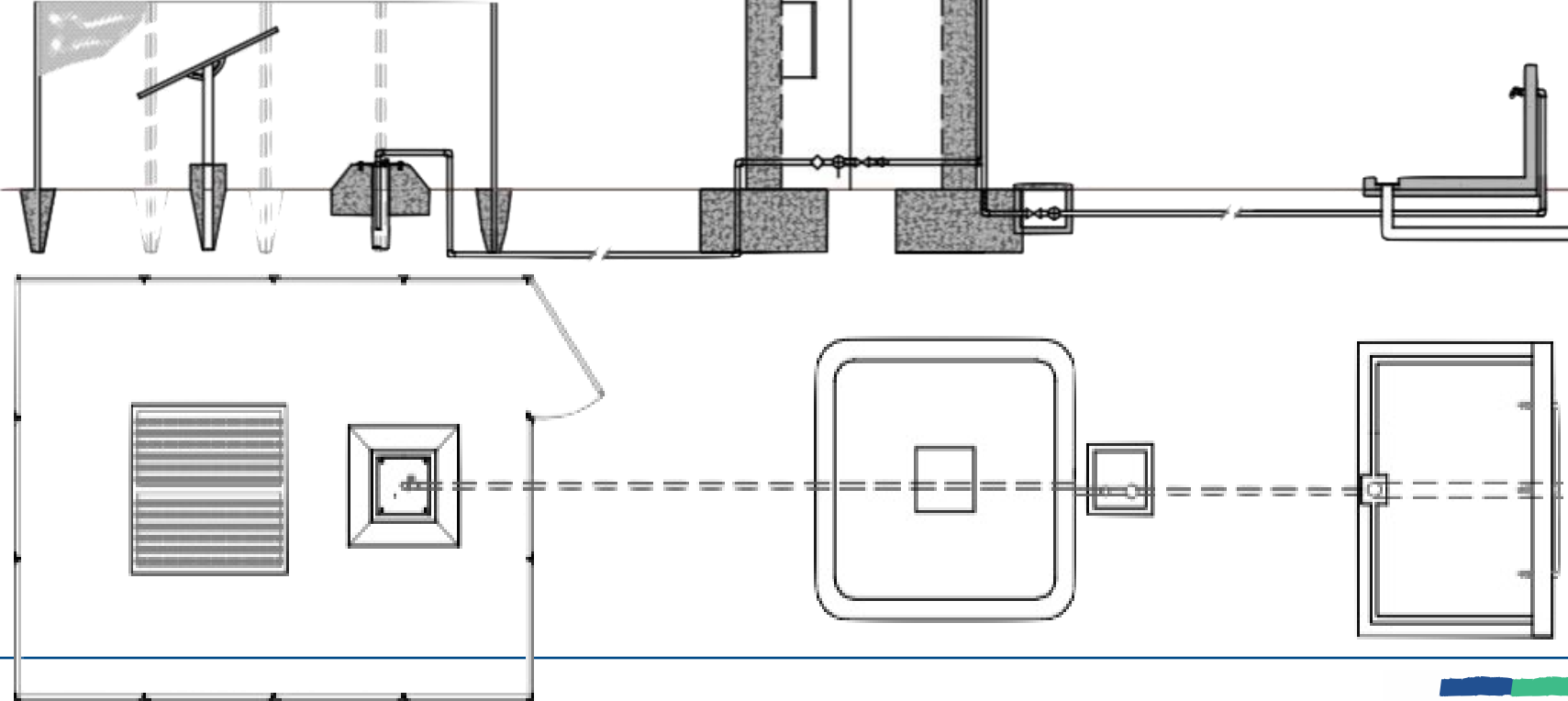
Partnerships



Realizations



Realizations





Realizations



Population : 400 inhabitants

Needs : 20 litres/day/person

Volume : 8m³

Time to fill: 3 hours

Production capacity: 12 to 15 m³ / day

Total Manometric Height 20 m

Possibility of extension

Realizations



2 taps

Flow 20 liters / min
with 2 open taps

In 3 hours the needs of a
village of 400
inhabitants are covered

Realizations

Price:

Solar panels: +/- 6 millions FCFA

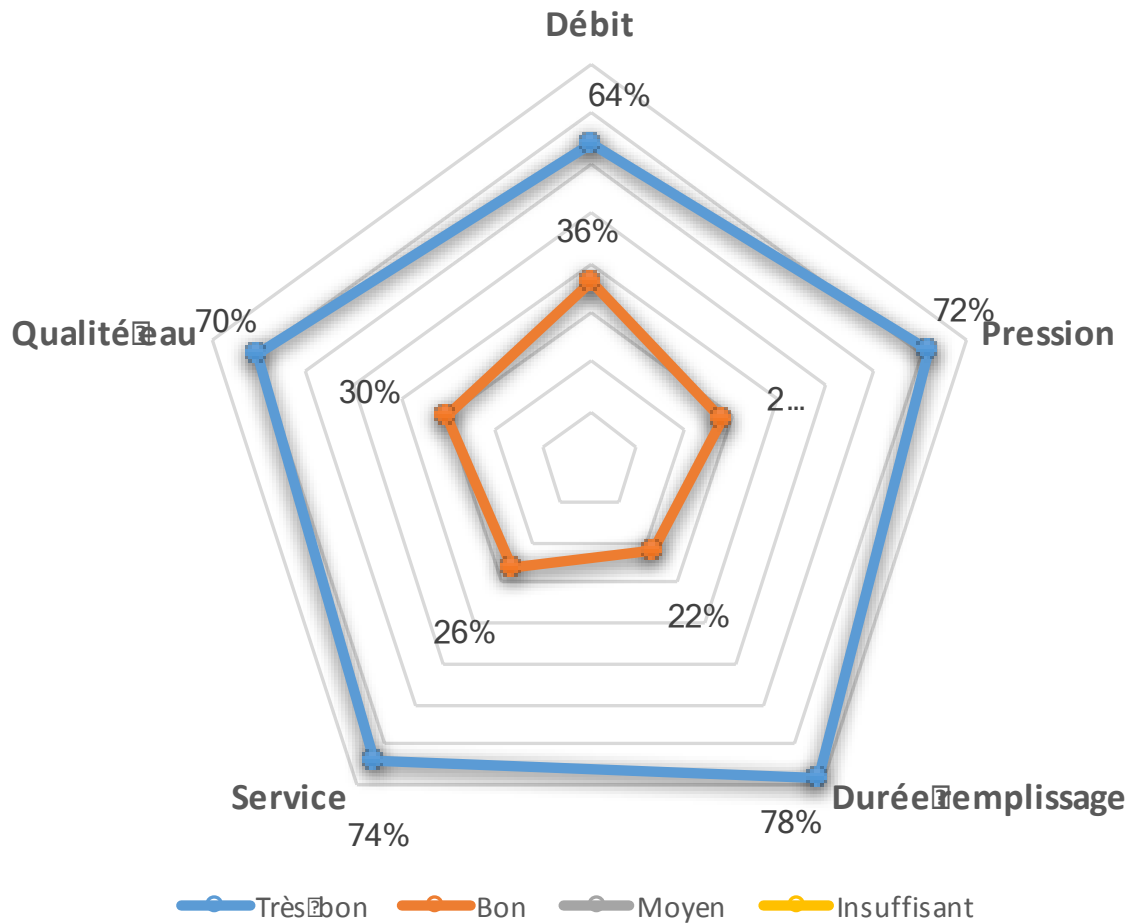
Manual Drilling +/- 900 000 FCFA

Total +/- 7 millions (DIN)

Amortization/ Panels 15 years /Submerged pump 7 years
Tank and waterpoints 15 years

Drilling with human power is 1.8 million FCFA





consumer satisfaction survey

water quality, tap flow, tap pressure, filling time of buckets during filling and overall service quality.

sample of 100 respondents including 56% women and 44% men

Exploitation

- Installation in 2015
- Pilot: need of intense post-intervention support, provided by local partner NGO Action Mopti
- Technicians of the village are formed in operation and maintenance of the system
- System in Kalassirou in operation and the system in Sogopa Ouro Hamadi doesn't function anymore
- Security situation in Mopti became worse, so interventions need to be suspended, also by Action Mopti in this communities.

Conclusions

- To early to make conclusions (safety situation in Mali, Mopti)
- 3 times more expensive than installations with human power
- More constant use of safe water and better use of borehole potential
- Faster service and less physical effort
- Theory vs practical implementation
- Scale of interventions can create local market for maintenance services, ..
- Isolated cases are not that sustainable



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