



Enhance & Expand
To Achieve 100million in WatSan

A E G I S

Consulting

Ibnur

Joyce

Ken

Shiaw Yan

Veera

Goal

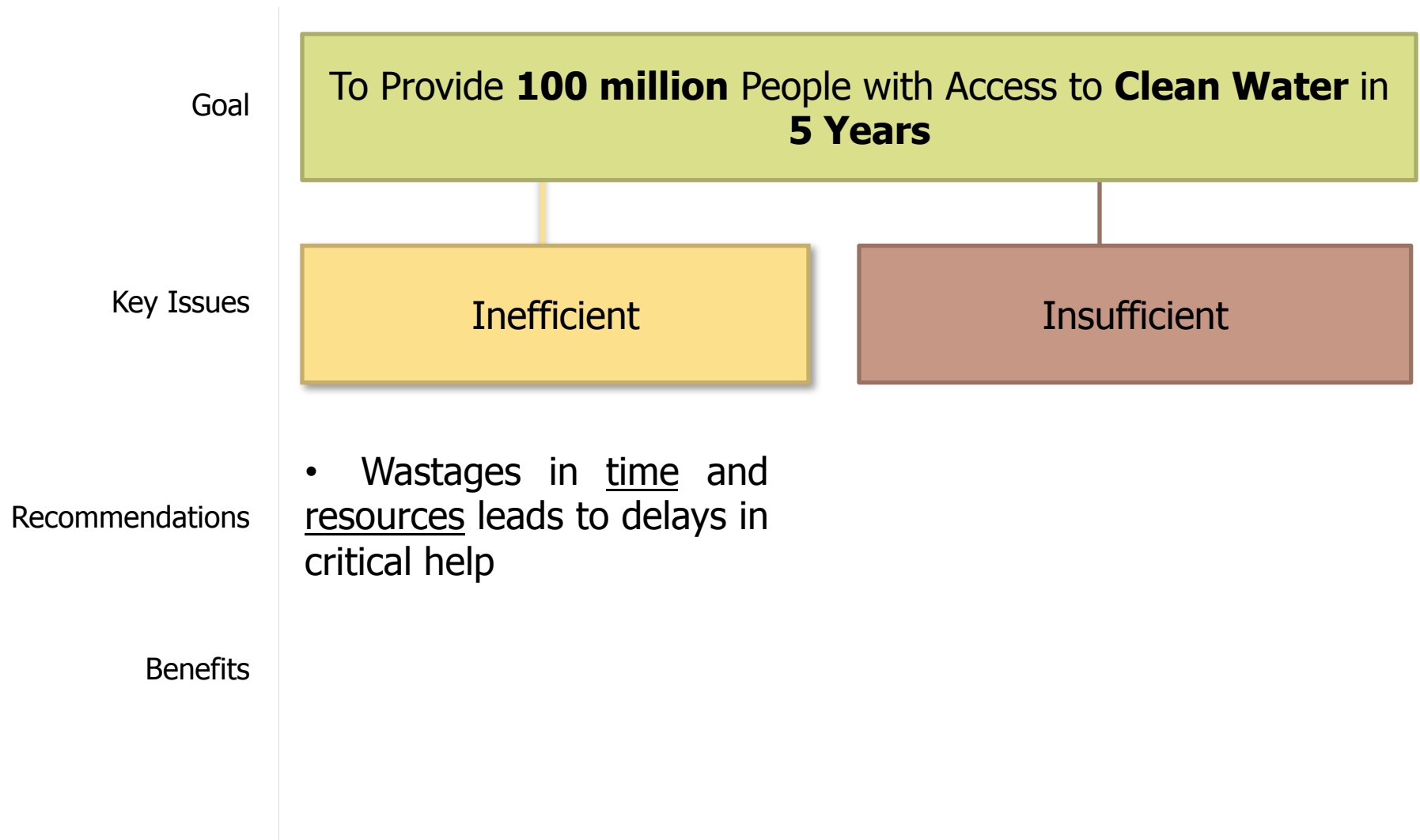
To Provide **100 million** People with Access to **Clean Water** in **5 Years**

Key Issues

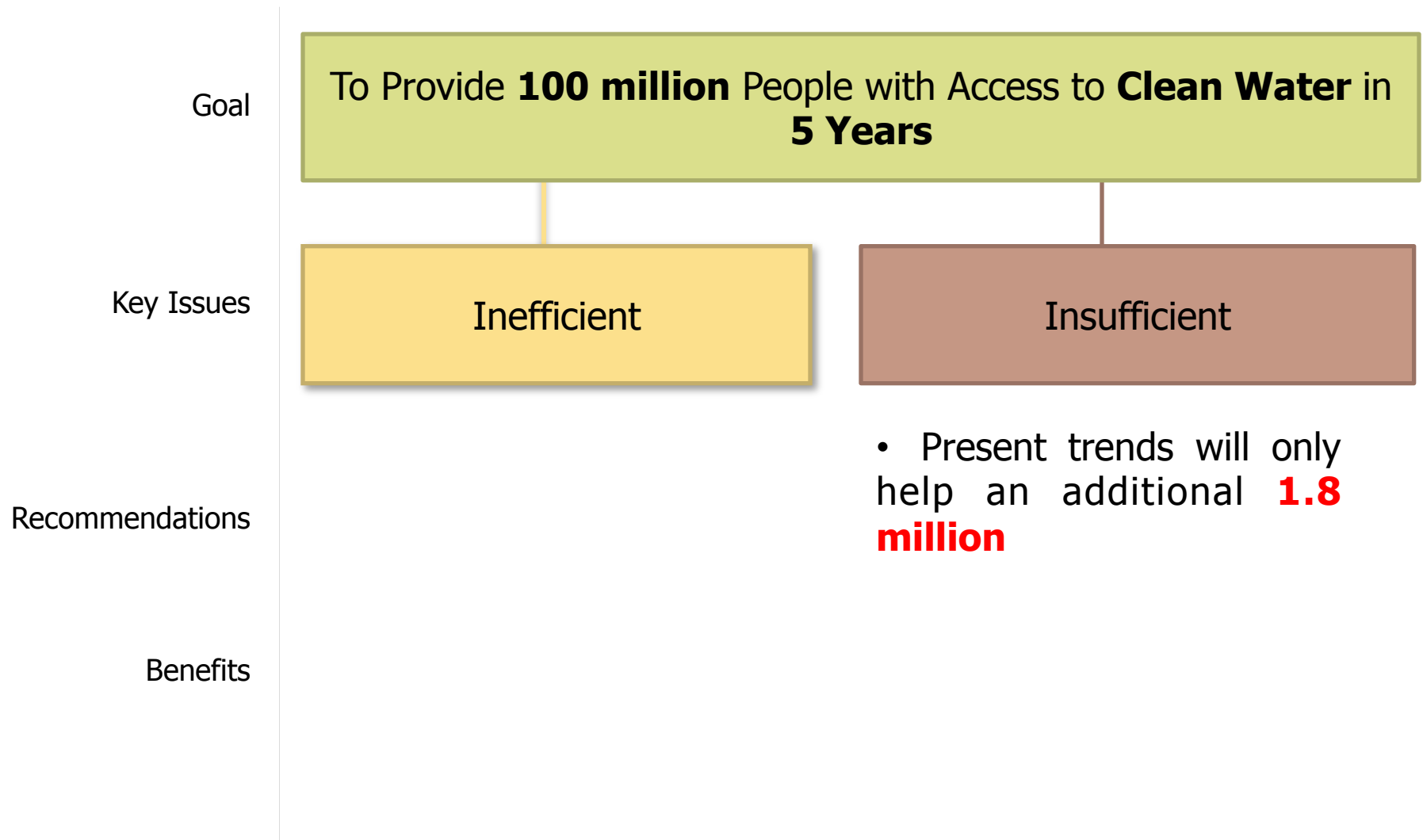
Recommendations

Benefits

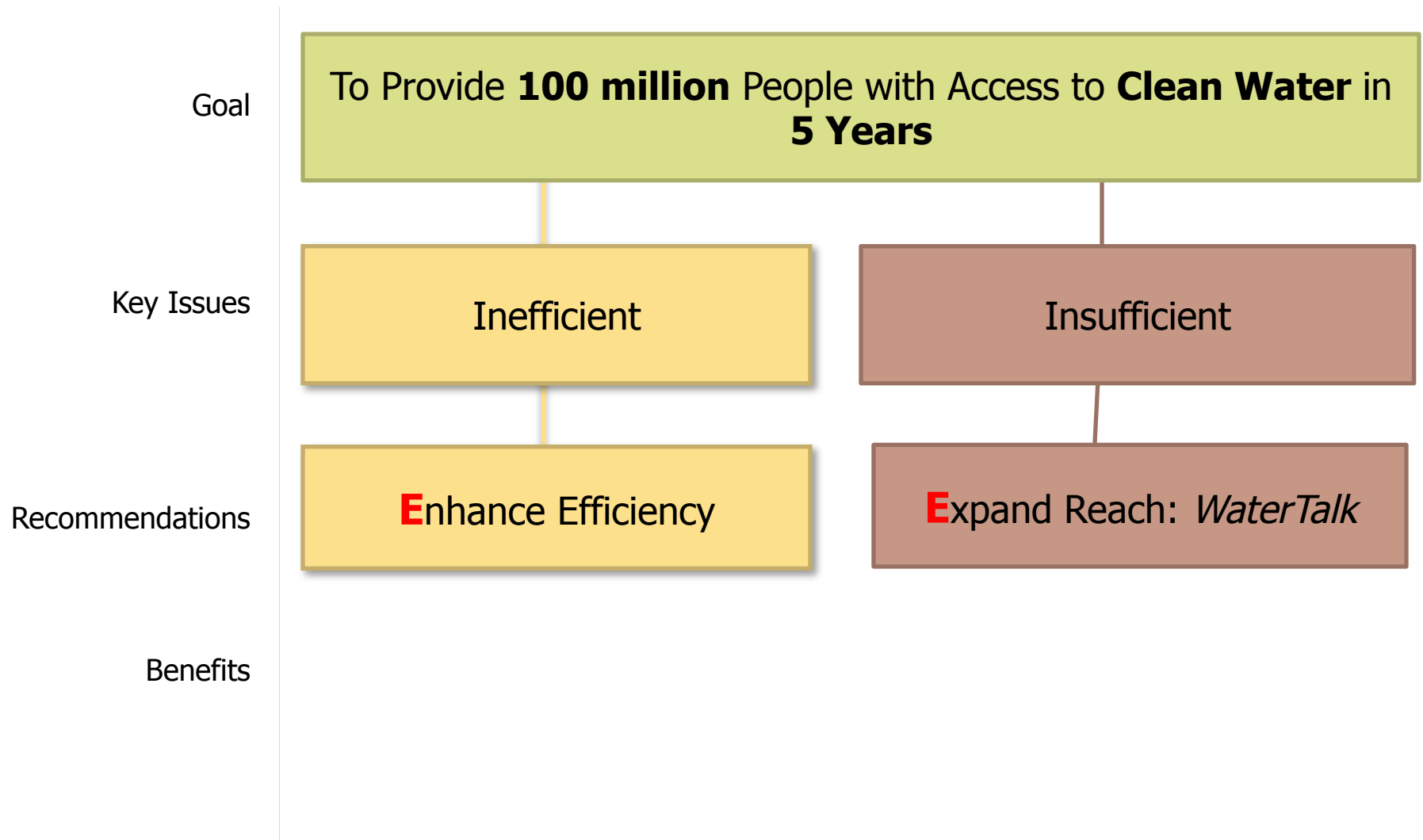
Value Proposition



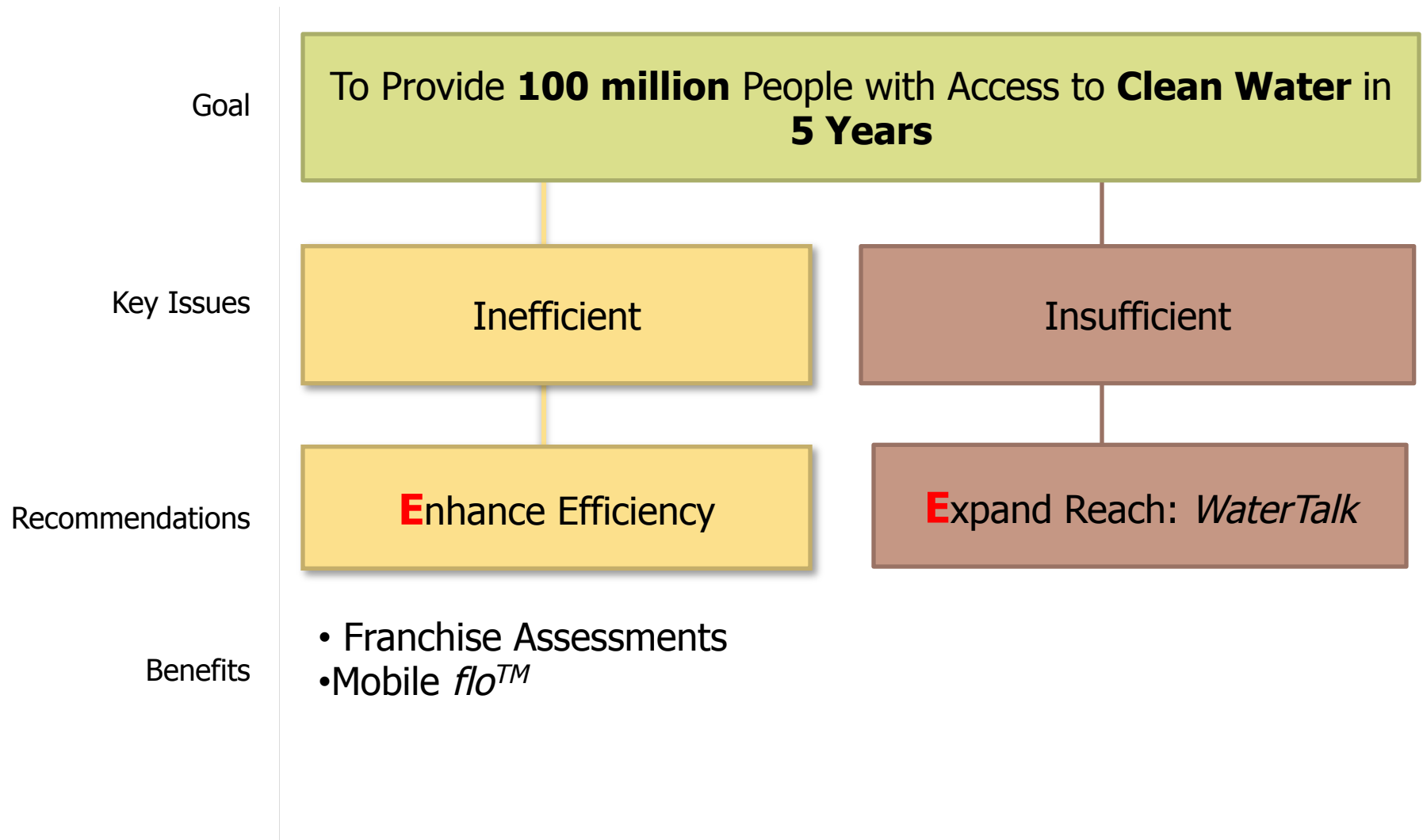
Value Proposition



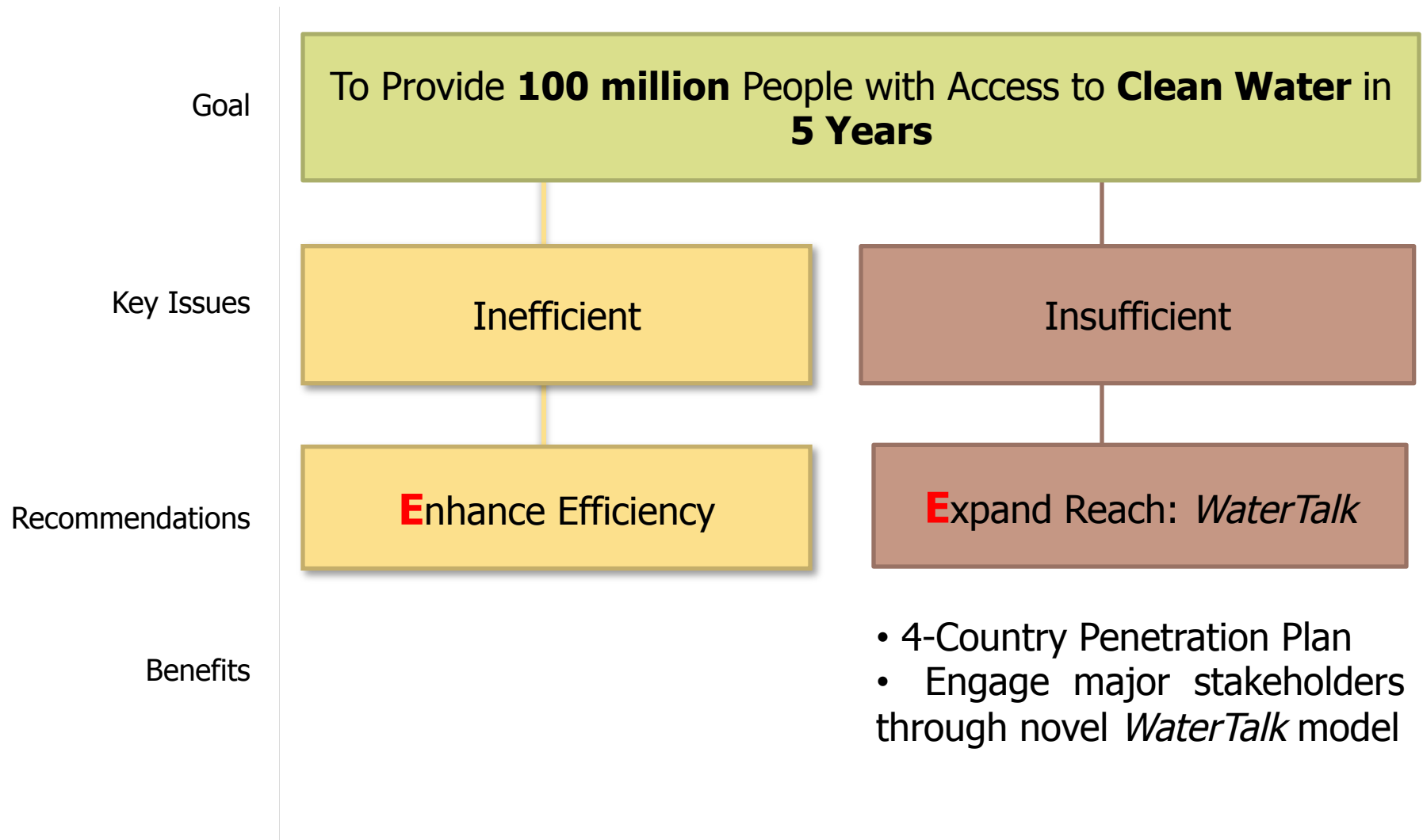
Value Proposition



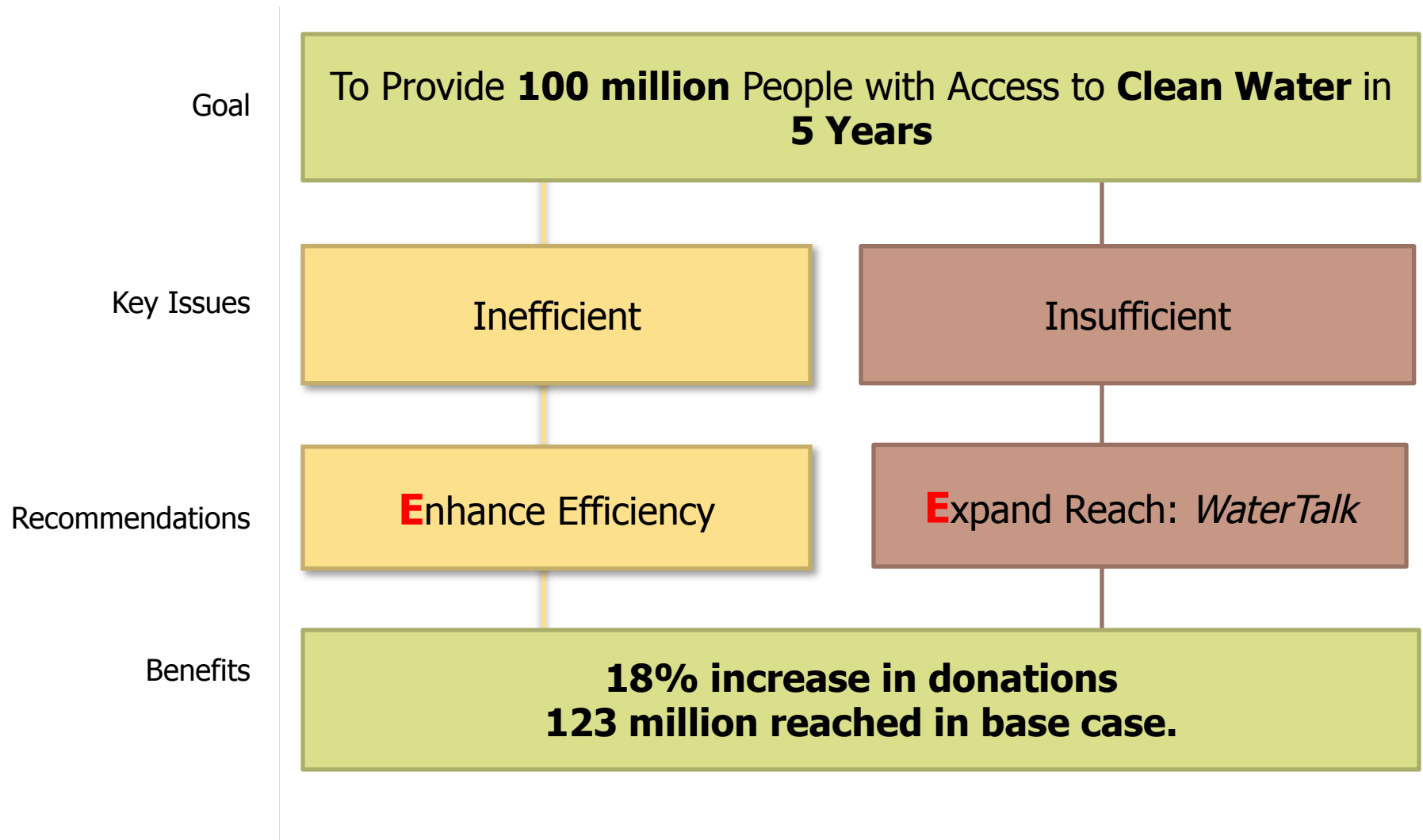
Value Proposition



Value Proposition



Value Proposition



External Trends to Leverage Upon

Pre-Paid Services

Viability of Sanitation Projects

Increase in Mobile Penetration

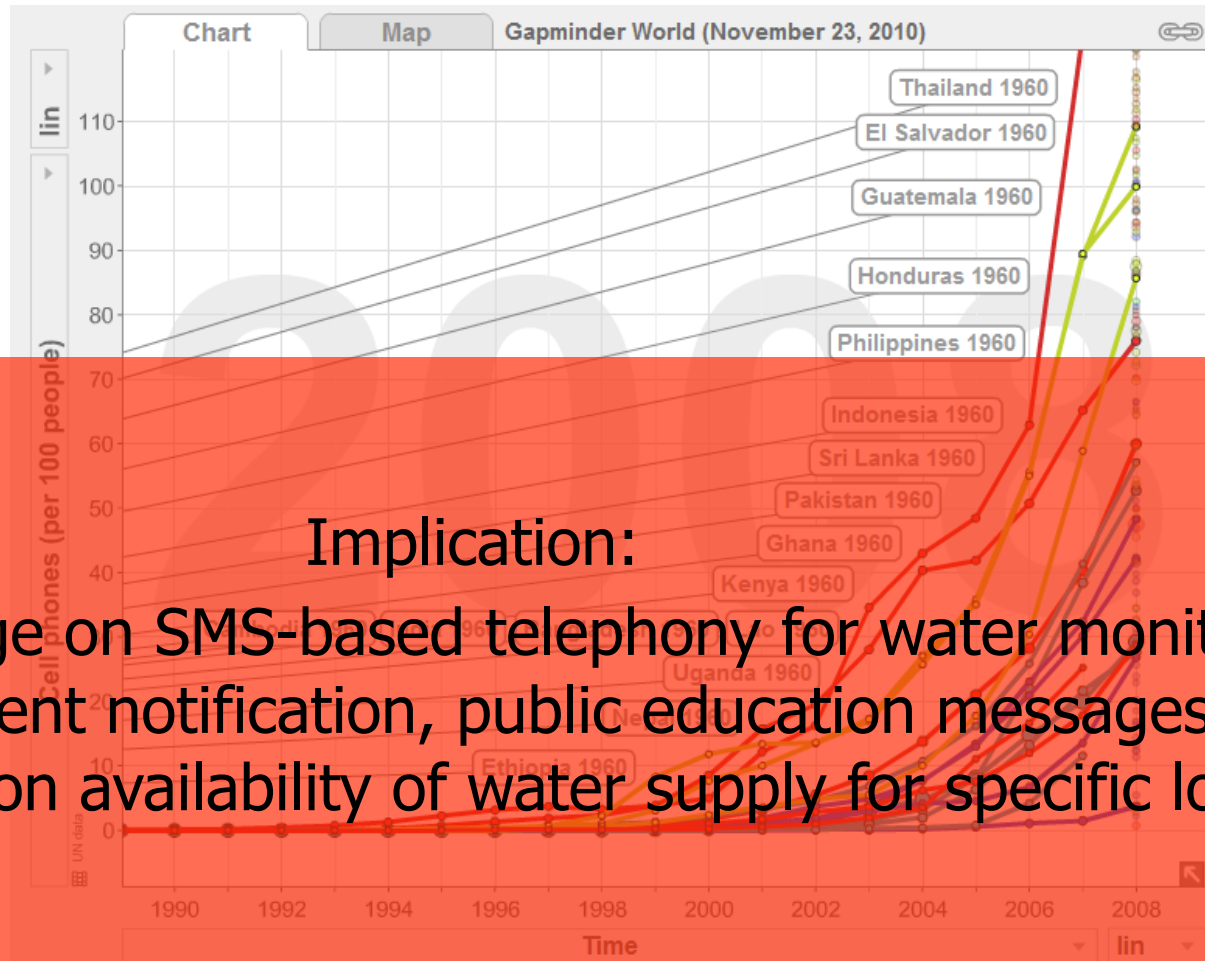
Rise of Mobile/ Airtime Vendors

External Trends to Leverage Upon

Pre-Paid Services

Viability of Sanitation Projects

Increase in Mobile Penetration



Implication:

Need to leverage on SMS-based telephony for water monitoring, payment notification, public education messages & information on availability of water supply for specific location

Rise of cell phones per 100 people and mobile penetration rate since 2000
Source: UN, 2008.

Internally, Present Means are Inefficient

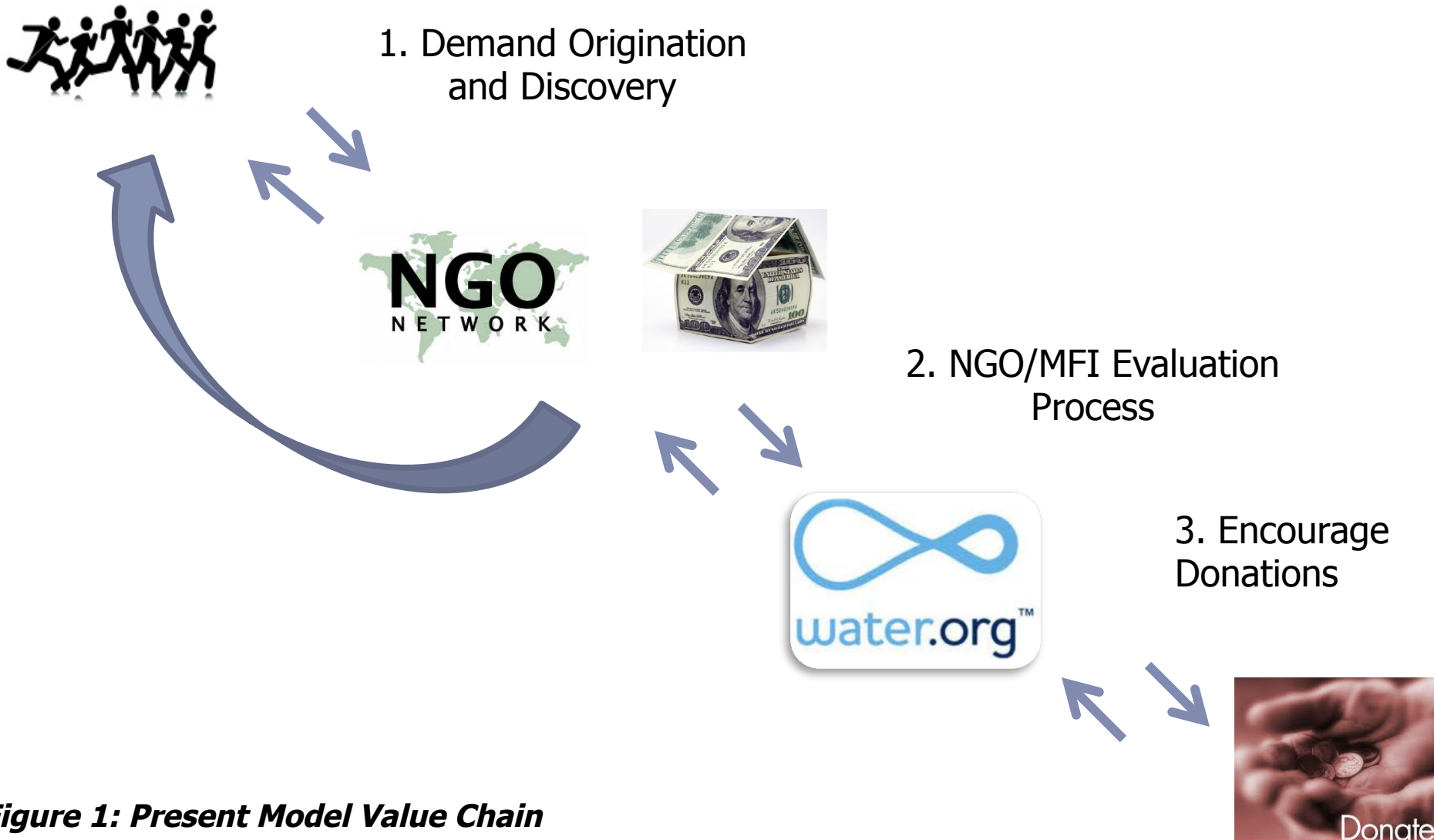


Figure 1: Present Model Value Chain

Internally, Present Means are Inefficient

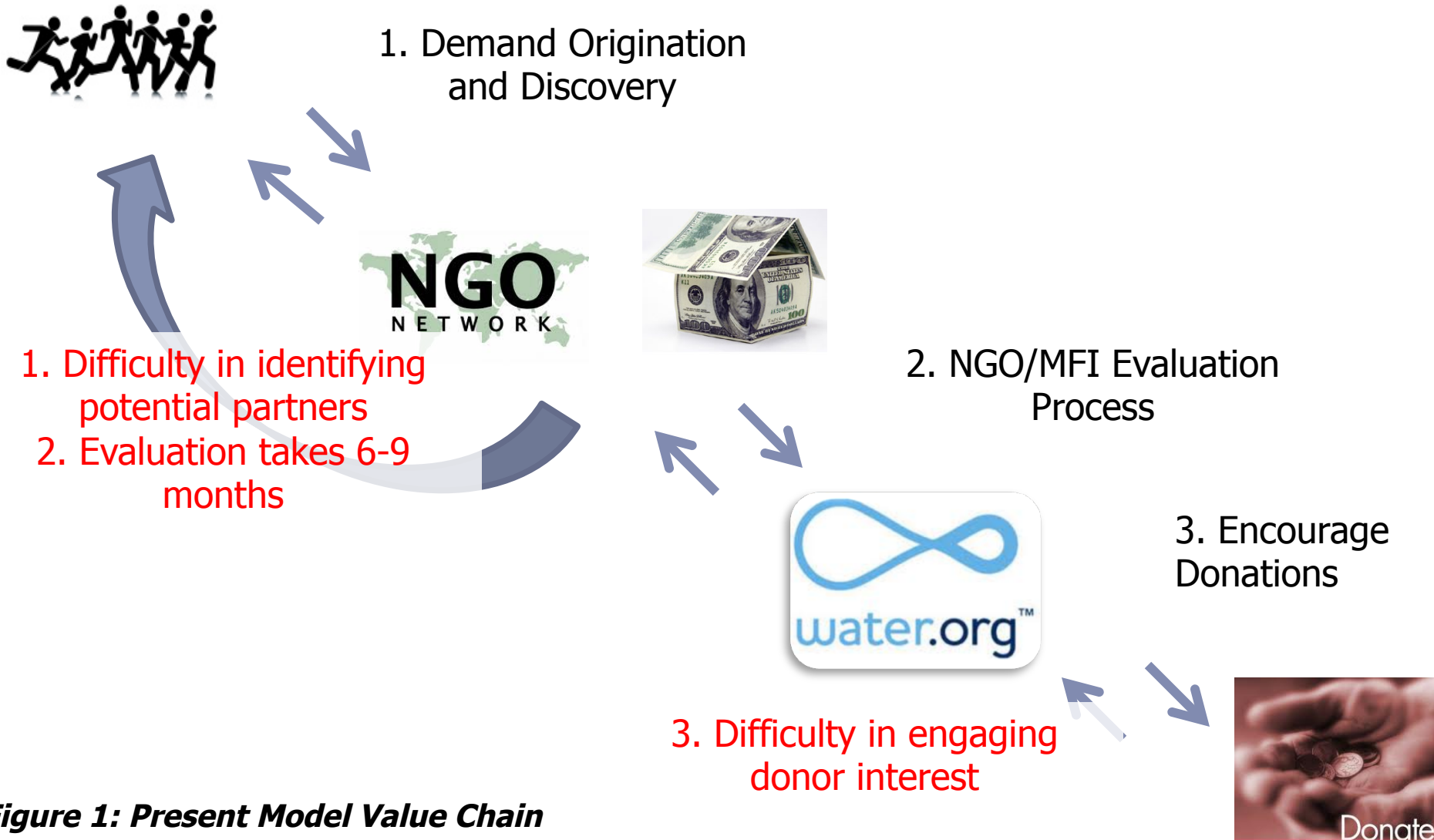
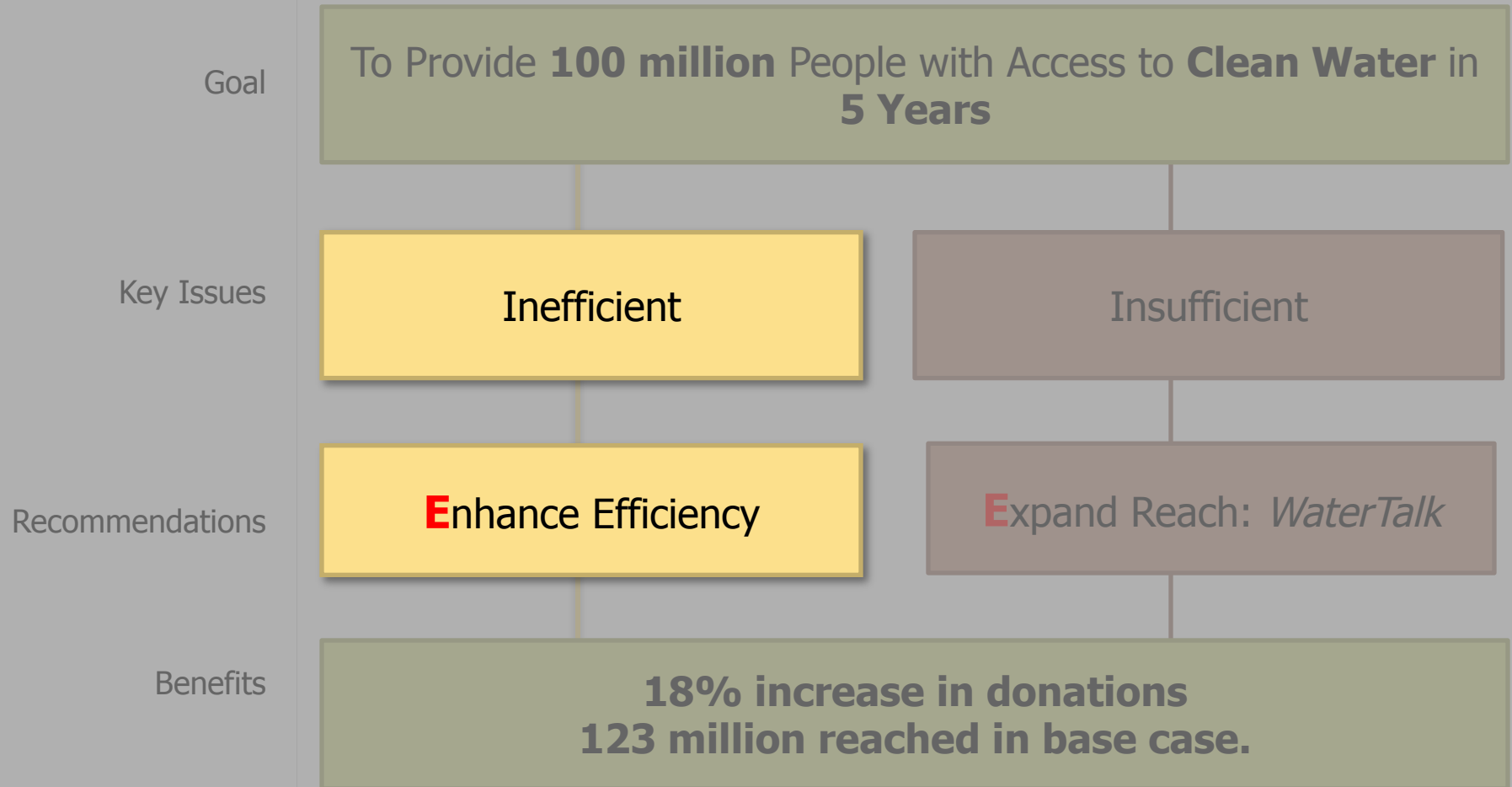
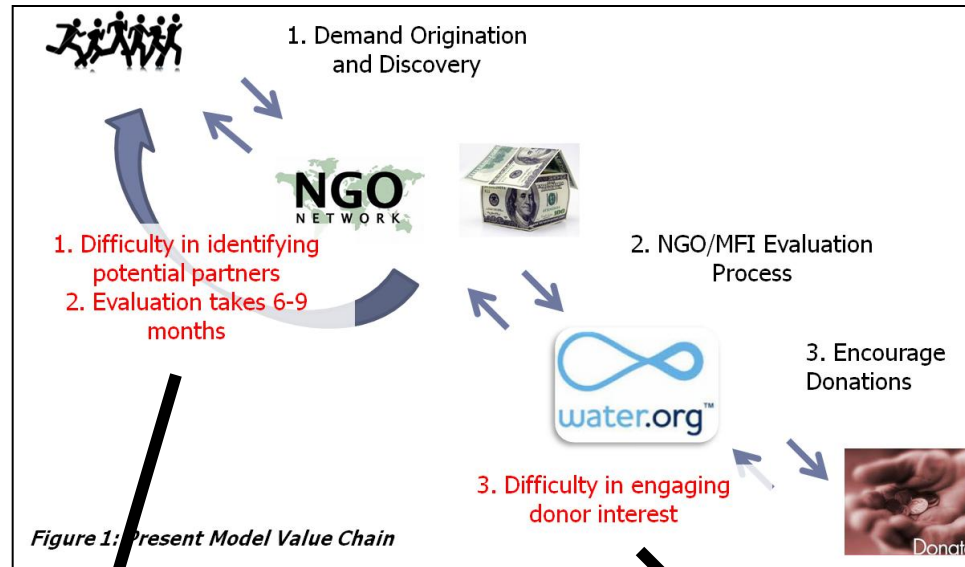


Figure 1: Present Model Value Chain

Enhance Efficiency: Optimize Limited Resources

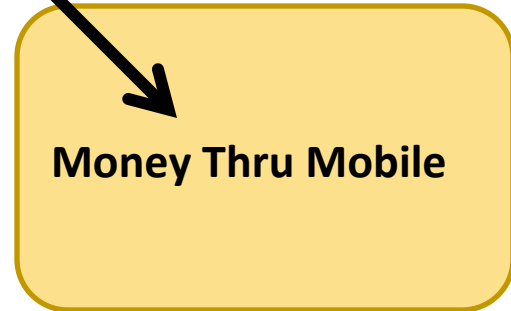
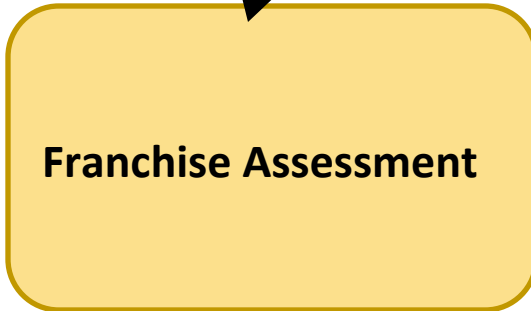


Situation

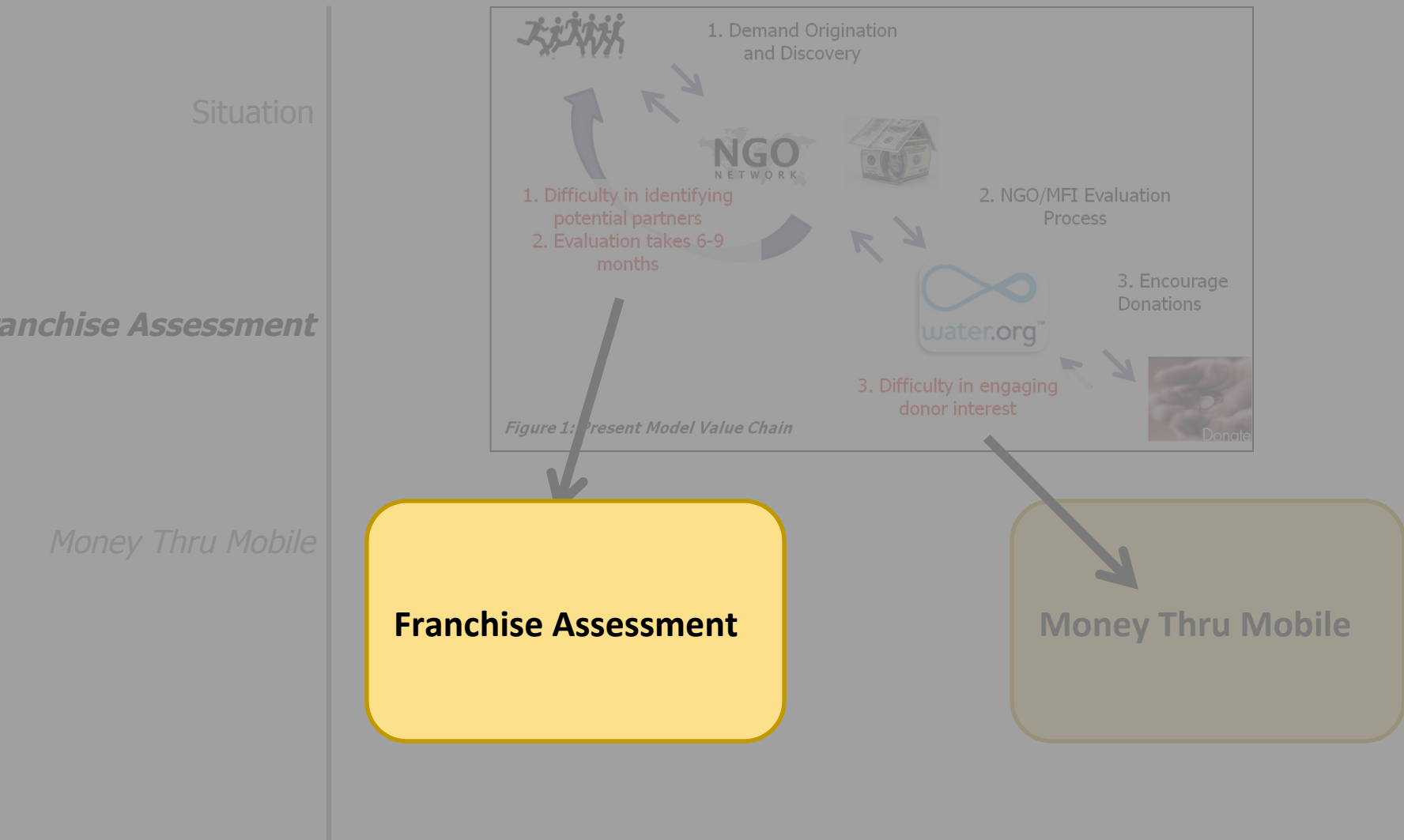


Franchise Assessment

Money Thru Mobile



2 Major Value Gaps to Address



Franchise Assessment - Before



Assumption: Water.org assess only 1 MFI/NGO at a time.

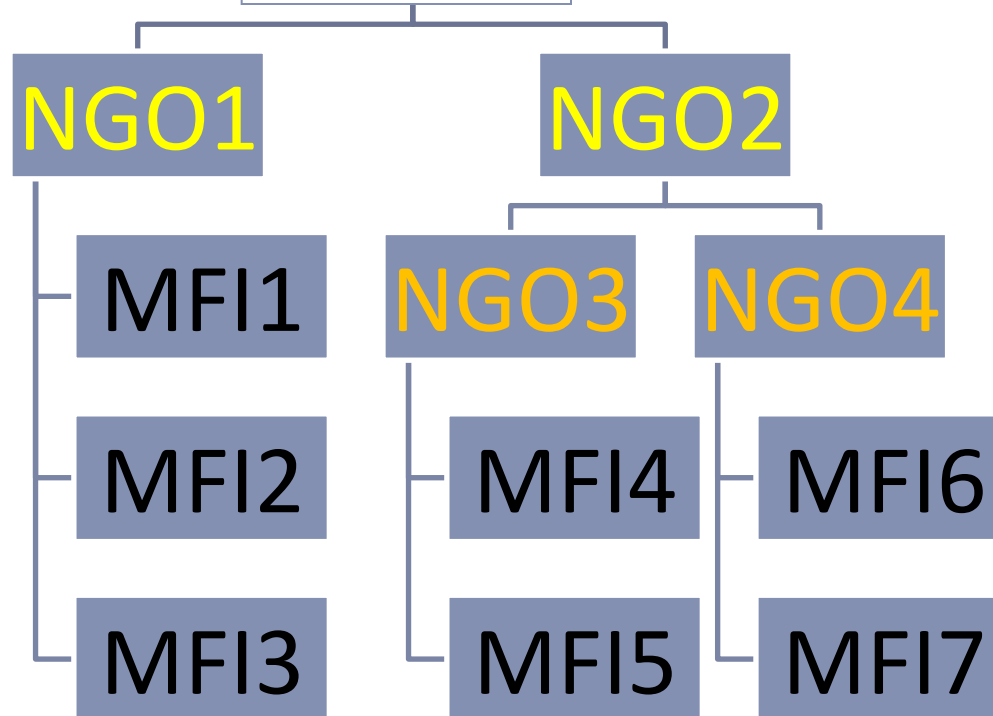
Average time needed to assess an NGO/MFI ~ 6-9 months
∴ Time needed to evaluate 11 NGO/MFIs ~ **66-99 months** (max)

Franchise Assessment – After

Allowed to assess other NGOs
 Not allowed to assess other NGOs



∴ Time needed to evaluate 11 NGO/MFIs ~ 18-27 months (max)



Franchise Assessment – Value for NGOs

Increased Trust

- Gives NGO more resources and increases value of partnership

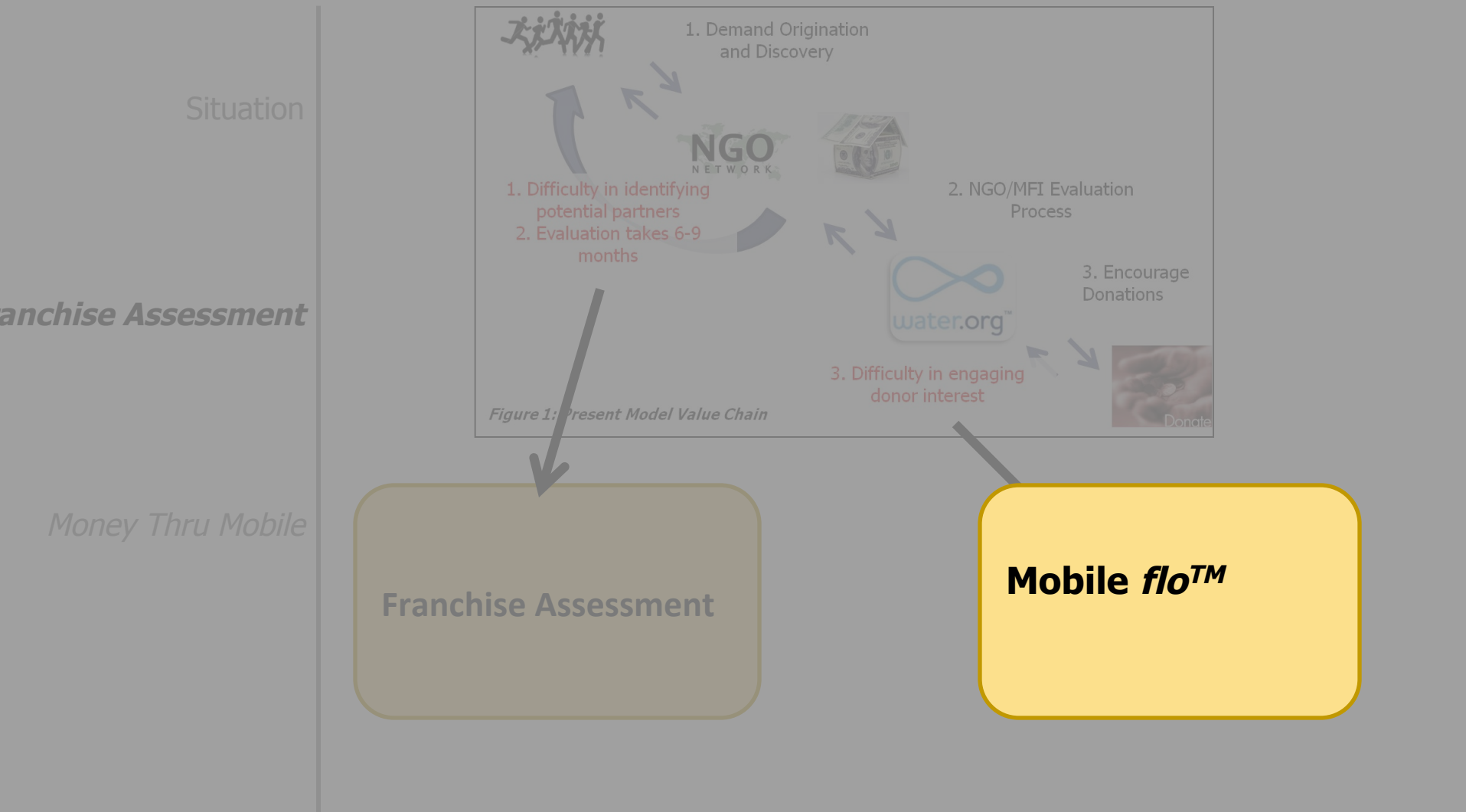
Increased Credibility

- Helps NGO improve local and regional credibility

Increased Flexibility

- Provides more freedom to operate

2 Major Value Gaps to Address



flo™ Provides Fluid Mobile Giving Experience

Step 1: User receives SMS text message & enters 4-digit PIN.
 Step 2: Donation confirmation via web & SMS

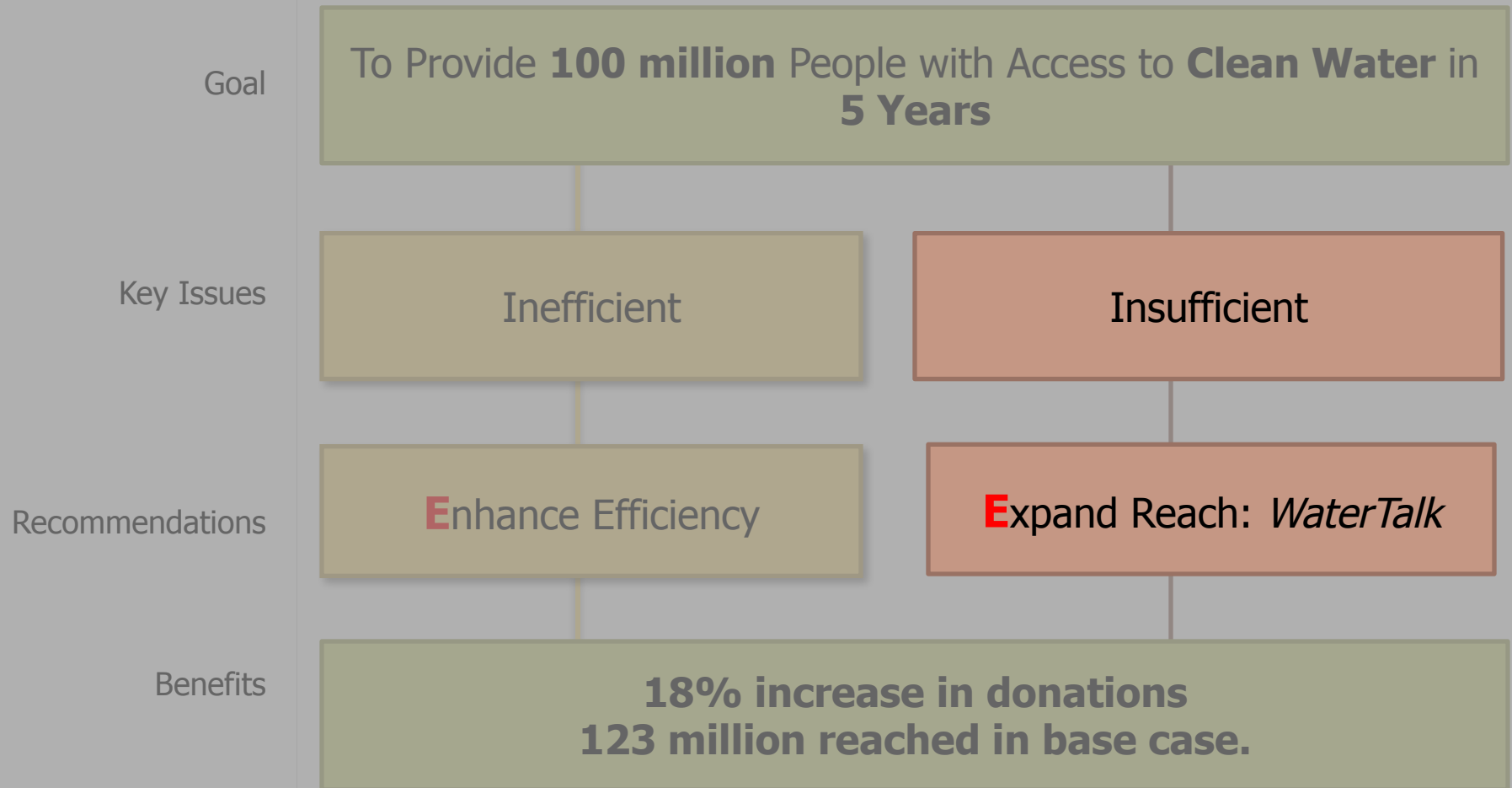
User gets Donation confirmation on mobile handset: User gets PIN on mobile handset: User gets receipt in his inbox.

“So simple? Only a PIN and that’s it.”

User enters PIN onto web browser.



Value Proposition





LOAN

Output based loan scheme (emulating K-Rep Bank's Maji ni Maisha)

Aimed at creating an economically viable watsan market

Centered around existing water and sanitation companies

WATER ACCOUNTING

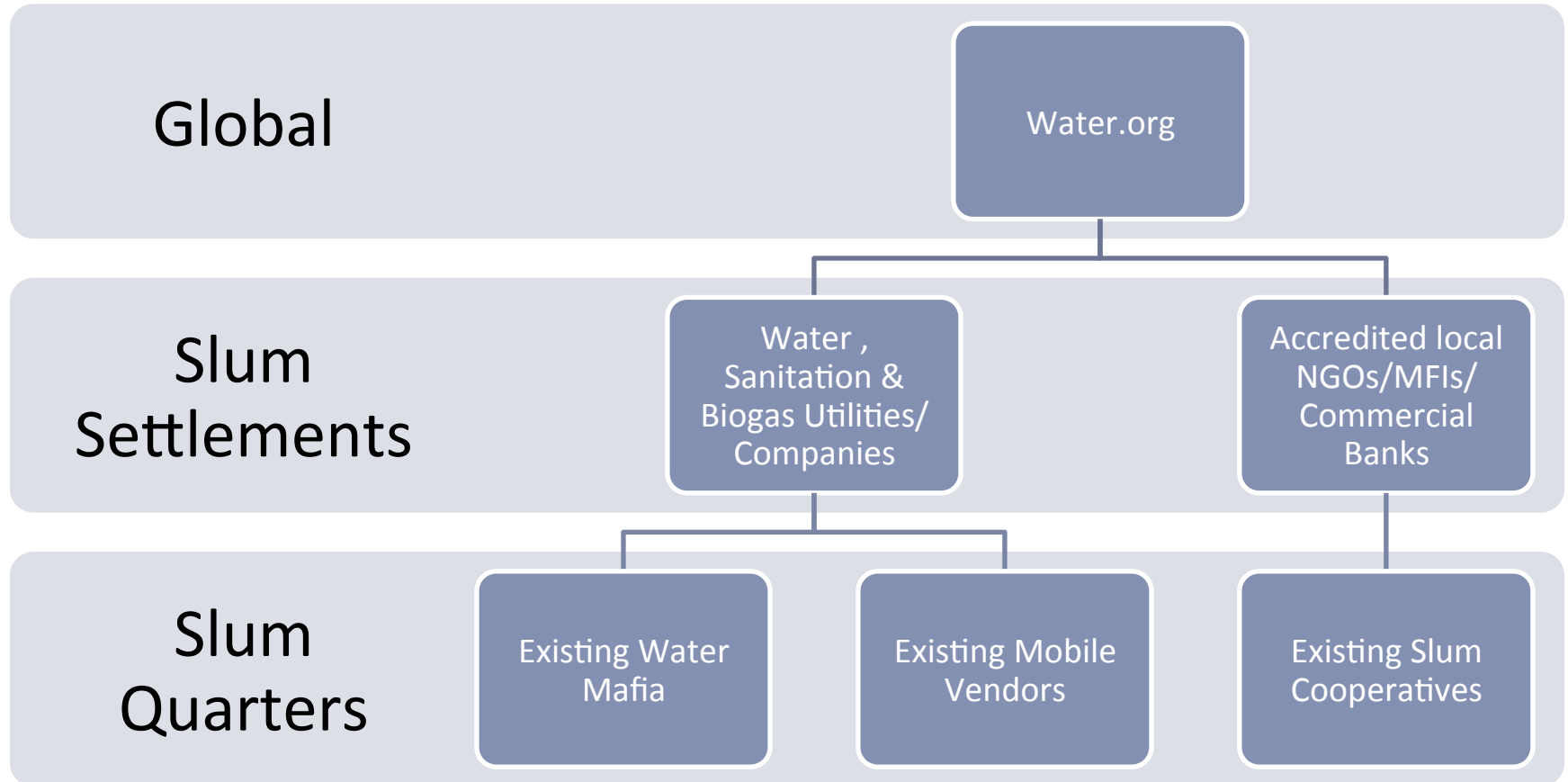
92837 (WATER) SMS shortcode to be purchased from local telco & maintained by Water.org

Used for payment accounting

Used by Water.org for educational messages

Water quality analysts can SMS [Location Code] <Problems>

Consumers can complain & give feedback about service quality & corruption etc.
via SMS [Location Code] <Complain/Feedback>



Accredited NGO/MFI



Water Utility/Company



Demand from
community determined

Willingness of Water
Utility determined

Loan extended by
Water.org

Water Utility/Company



Water Company builds a water connection to water tank at the location



Bulk Water Tank



Water source either managed by mobile phone vendors, water mafia or cooperatives themselves

Can charge up to 2x the price charged by water company

Bulk Water Tank



Mobile Phone Vendors



Water Mafia



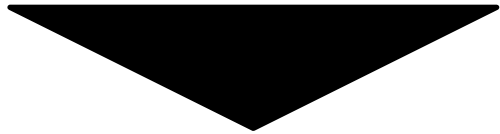
Cooperative



Accredited NGO/MFI



Once demand from the community cooperative has been determined, the accredited NGO or MFI will approach Water.org



Water Utility/Company



Mobile Phone Vendors



Water Mafia



Cooperative



Payment SOP

At mobile store:

Prepaid water & sanitation packages are offered at mobile talktime vendors

Cooperative representatives or individuals purchase suitable package

Water packages come with cheapest mobile phone available

Note: All packages must include both water & sanitation costs

At water point:

At water point, consumers will SMS: [Location Code] [Water Volume] to 98237 the water volume to be collected

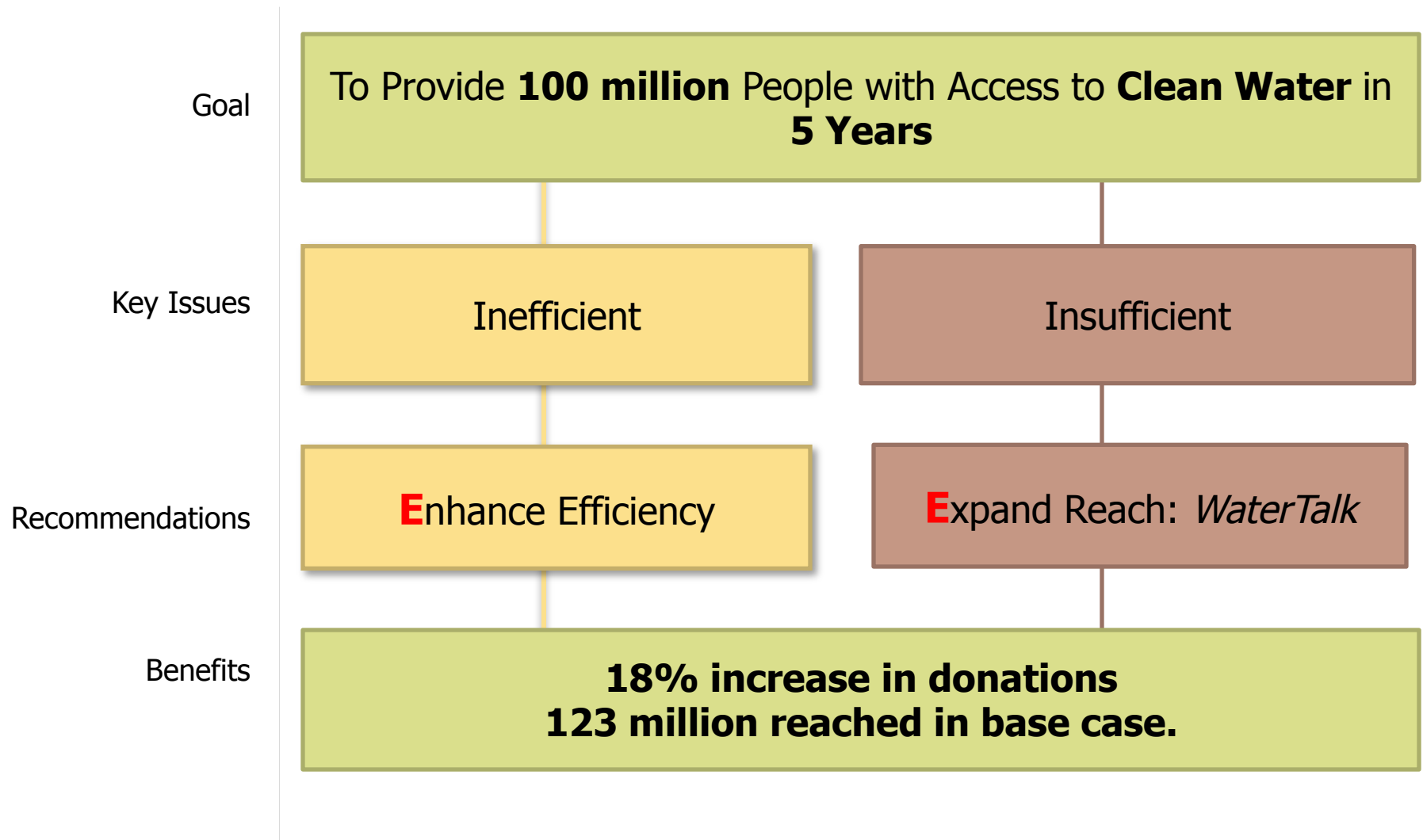
Operator & consumer at [Location Code] receives notification to cross-authenticate

Payment charged and deducted from consumer's prepaid water package

Criterion Met

	Demand Based	Philanthropically Efficient	Effective	Actionable	Scalable
Enhance Efficiency: 1) Mobile Flo 2) Franchise Assessment		YES	YES	YES	YES
Expand Coverage: 3) WaterTalk	YES		YES	YES	YES

Value Proposition





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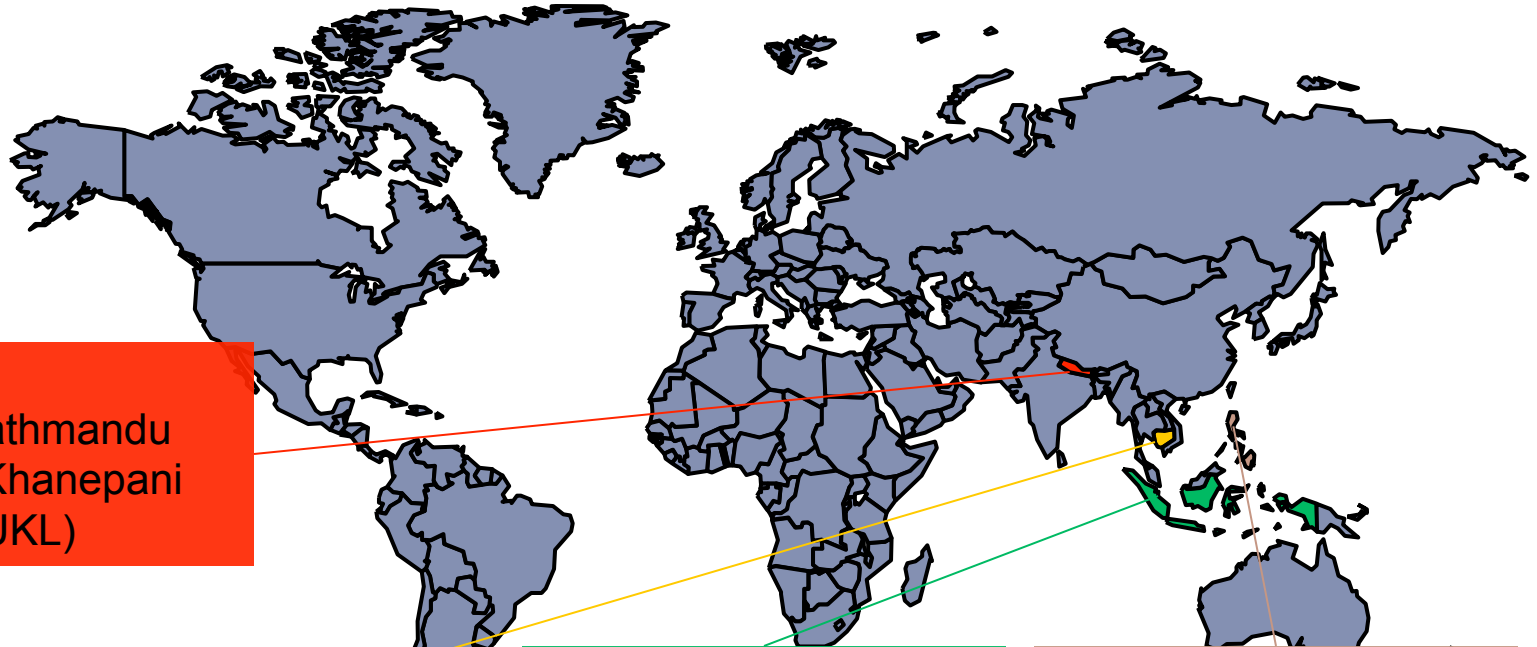
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Water Companies in Selected Countries



Nepal

- Public: Kathmandu Upatyaka Khanepani Limited (KUKL)

Cambodia

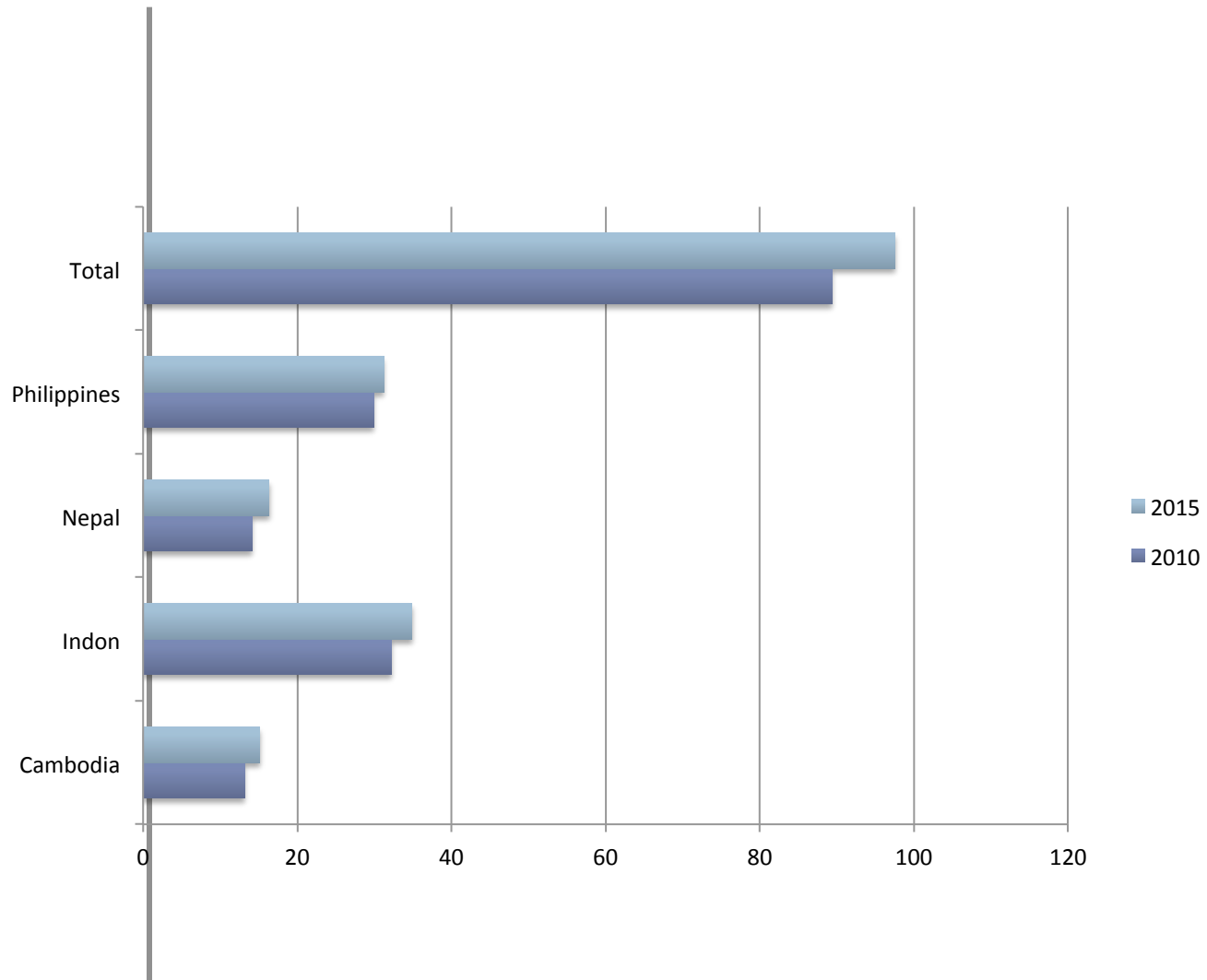
- Public: Phnom Penh Water Supply Authority

Indonesia

- Public: Local Govt Owned Water Utilities (PDAMs) e.g. PDAM DKI Jakarta
- Private: PALYJA (owned by Suez), Thames Water International




Philippines

- Private: Manila Water Company, Maynilad Water Services



Type	Description	Connection fee (USD)	Tarriff/m3 (USD)
Utility		100	0.24
Private system 1	Connection fee + plumbing service + water meter + iron pipe	60	0.50
Private system 2	Illegal connections that are technically sound for low income areas	66 (BOP price penalty)	0.80
Private system 3	Water distributors cater to households 3/4 days a week uses hoses	20	1-1.50
Area: Cebu, Phillipines. 2004 data from pipe water only service 32% of population	Source: ADB water for all publications series 8		

Mobile payments can convert a user to buyer/donor 10 times more easily than credit card systems.

			
Users who click to buy/donate	100	100	100
Donor conversion rate	.05	.50	.50
Users who pay	5	50	50
Total sales (\$)	49.95	499.50	499.50
Payment processing fees	1.50	199.80	25.00
Gross revenue earned	49.95	299.70	474.50

Amount of Revenue

Credit Card



Mobile Giving



Charge 3% interest

Made up of about 20-30 women on average

Community can gain access to capital that grows by 800% for each cooperative/year



Typically charge 8-16
times more than
utilities

Truck water from
progressively
further rural
areas to peri-
urban and urban
areas

Could be considered
criminal gangs or
entrepreneurs



Water Utilities/Companies

Successful model water delivery to peri-urban areas of Davao City, Philippines
DCWD sets up water kiosks in strategic places within selected peri-urban villages and authorizes local associations or cooperatives to operate them.

DCWD provides and maintains stainless steel tanks where water is stored, although the operator is responsible for repairing damages due to negligence.

Finally, DCWD ensures that the water is of high quality by regularly testing for chlorine residual and disinfecting the water tanker.

Other successful cases in Metro Manila, Bangalore,
Dhaka



Mobile Phone Vendors

Tend to engage in other businesses
Are primarily entrepreneurs who would be receptive to new business ideas –
such as water sales or sanitation services

Owner #	Main Business	Age	Education/ mobile repair skill	Attached Business
1	General store	27	10 th grade/formal + peer learning	Coupons/accessories
2	CDs/Public call office (PCO)	23	10 th grade/formal + on the job	Coupons
3	General store	39	10 th grade/—	Coupons/accessories
4	Spice store	20	10 th grade/formal + on the job	Coupons/handsets/accessories/Xerox/spices
5	Perfume store	28	5 th grade/self-taught	Handsets/accessories/perfumes
6	Mobile coupons	29	10 th grade/apprenticeship	Handsets/accessories/repair
7	Mobile coupons	—	10 th grade/learned from cousin	Handsets/accessories/repair
8	Xerox/lamination/scanning/printing	28	8 th grade/—	Online/ticketing/billing/mobile recharge/accessories



Rise of cheaper prepaid connections. Telcos prefer prepaid systems to reduce their exposure to mobile users who would otherwise not pay if post-paid.

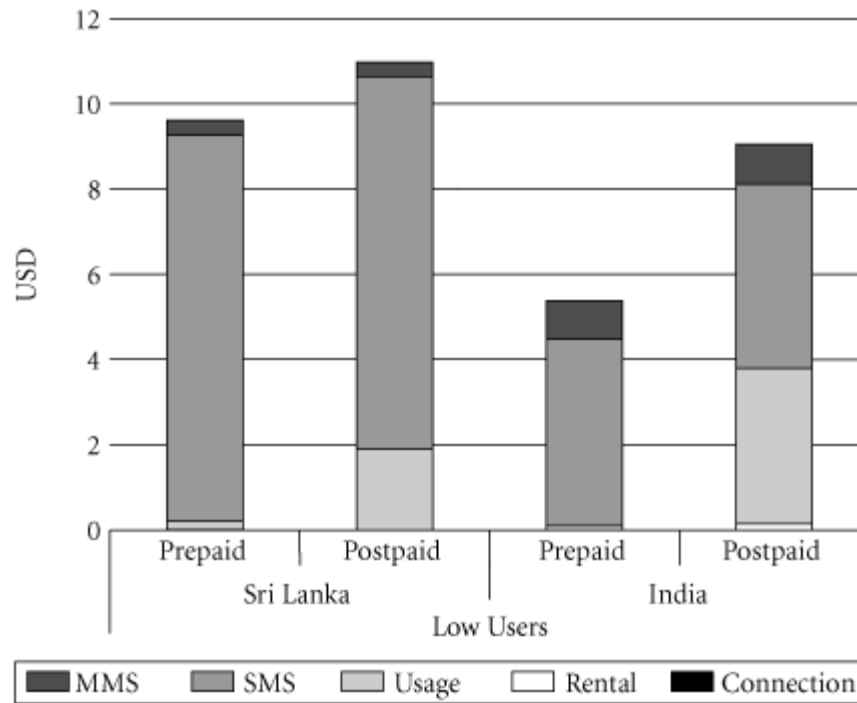


Figure S1.2

The success of prepaid is not simply lower prices. Even when prepaid call charges were higher than post-paid, the demand for prepaid was higher. Basket calculations for monthly expenditure on telecoms for lower-end users indicate that prepaid is now the cheaper option in many countries, as illustrated in Figure S1.2. Perhaps the ability to control or minimize expenditure on telecom allowed through prepaid connections, also evidenced by the lower Average Revenue per User (ARPU) generally found among prepaid subscribers, contributed to its popularity.