WaterTech and MicroCredit

a perfect match for delivering volume in improving rural economies worldwide

INTRODUCTION

This proposal is about realizing local clean water sales points that reduces the time consumption of getting and cleaning the water and reduces the illness based time consumption attached to water.

When facilitated with Open Technology and Open Finance a voluminous roll-out of these local clean water sales points can be realized very simple. Just by one simple local change, possible to realize everywhere needed, thereby realized in volume can contribute massive to the next issues on global scale:

- rural water quality
- rural water economics
- rural health status
- rural education access
- rural finance
- rural economics
- rural communication
- rural prosperity levels
- rural population stabilization

A local clean water sales point releases lots of productivity time and thereby can boost every local economy severely. More time to work/produce and less costs of illness. Of course life quality will improve also, but that is clear to anybody without any further explanation.

How to get such huge global changes, based on massive local changes in place? Realization of the needed volume can be done by just one simple digital model. A digital model that can be spread very quick worldwide if promoted by the right (as in: famous) people. A model that can be realized very easy in each rural village in developing regions. A model that's based on supporting own local entrepreneurship. A model that uses as much as possible local materials. A model that uses own regional micro credit finance. A model with many boosts and no limits.

Introduction in one short line: This model is about reducing the economic price of clean water by Open Water Technology, Open Micro Finance and supported by Open Education.

EXPENSIVE WATER

Imaging the current price of water in rural areas in developing nations, even when there is no water for sale. Currently water is very expensive in these rural areas in developing nations, Expensive is not so much about the purchase price, but more in other economic terms. Going out to take water from a regional source is occupying a large part of the working day. So water is expensive in acquiring time, not in actual money. If the water is not clean, the water needs to be cooked. Cooking water requires wood, which also needs to be required from elsewhere, which costs also a large part of the work time budget each day. The price of clean water is by these two facets huge in developing nations. But the price is even higher. A lot of water is biological contaminated due bad separation of flesh water and human/animal urine and faeces. By this contamination the price of water gets even higher due to illness and by this a lack of education days and/or working days. When the parents are sick, there is no income and when the children are sick there is no income for one of the parents who takes care of the children.

Imaging a change. Imaging that in each rural village there was a small clean household water sales point, that delivers clean drink water for an attractive price. Then the economic productivity of the village will rise tremendously as time consumption of water collecting, water cleaning and illness (due to bad water quality) all three will reduce significant. Clean water sales improves the living standard of a village within months, as it releases large amounts of productivity within the village. Improved living standards automatically leads to a lower birthrate and this gives the living standard its second boost. Enabling cheap clean fresh water has proven to be the start of a huge rise in economic improvement everywhere in rural developing nations.

What will such a local water sales point look a like? It's just a combination of some simple technology. Imaging a very dense metal sieve that sift all the physical pollution out of the water. Imaging two (redundant for function security) UV lights that cleans the water bacteriological. Imaging two simple pumps (redundant for function security). Imaging a solar panel attached to a battery. Imaging a protecting frame for this all. Imaging a water storage facility or a drilled water well. Imaging a donkey with a simple chariot that delivers transport (if there's no well yet).

OPEN TECHNOLOGY

Imaging that you just can go to a website which delivers you for free the best technological design for a rural village/area clean water sales point. Imaging a virtual design that can be altered with local variables to both improve the specs/capacity and lower the investment and/or lowers operational costs.

Why Open Technology? Open Technology is a digital structured knowledge environment where everybody with knowledge can contribute to and each contribution can be criticized, improved and graded by other users. Building knowledge of knowledge the digital way speeds up and improves global technological developments enormously. Digital facilitated Open Technology is combining the brains/knowledge/experiences of an unlimited number of people all over the globe. Open Technology is also not connected to one company, it's open to all suppliers, something that stimulates comparativeness in both price and specifications.

Why Dynamic Technology? A dynamic technological design can be altered by the site visitor to use local available materials and technology. This reduces the investment amount, by which the investment a) requires less capital than normally, b) comes within Micro Credit borders, c) reduces the monthly/weekly pay back amounts/period and d) reduces interest part in the business case. Dynamic Technology is about empowering local economies as much as possible, by contributing as much as possible and reducing the capital drain of local economies due to unnecessary too high investments.

What is the effect of the combination of Open Technology and Dynamic Technology? Severe lower investment amount (from $ 4000 to approximately $ 750) As result of this investment lowering dynamic technological design, the local water points can be handled with micro credit structures. This enables the powers of economy: there is a living to build on it, for someone in each rural village all around the globe. The combination of digital (low cost and everywhere available) advice, income generation possibilities and micro credit enables global a massive possible roll-out volume. Lower investment amount gives more volume possibilities (higher reach). Lower investment amount gives more profit during operation. This way of local rooted technological development is very intensive described by the UK economist E.F. Schumacher in the '70ties. Small is beautiful is something he has promoted very intensively.

OPEN FINANCE

The digital environment of Open Technology and Dynamic Technology (extended described in the page before this page) delivers the best possible investment plan (highest function for lowest price).

Imaging on top of this Open Technology environment a digital environment for Open Finance. A website where people within an hour also can compile the exploitation part of a business plan by just entering some data about their village. Data like: Number of inhabitants, water availability, water acquiring time consumption, health situation and village economy. Plus some data about themselves: name, sex, age, family situation, history, etc.

Additional two documents can be made: a) a document with possible investment guarantor(s) and b) a document with a possible (regional) advisor who supports the water points in a certain region.

The role of the guarantors is making the investment decision more easy for the micro credit organization to invest. It also opens the micro-credit resources for global players that wants to support local development directly. The guarantors gave a volume increasing function.

The role of the regional water point advisors is also promoting the concept. They have an 'outlet' function of the concept. In exchange for a small fee by start of a water point and a (if needed) a very small fee for operating support. The advisor has an independent controlling function.

The 'father' of this type of financial spark entrepreneurship driven rural development is F.W. Raiffeisen. A local village mayor who invented local/regional development finance. The man who made industrialization and urbanization possible (as by his model rural areas start to develop structural food surpluses). A man who lived in exact the same era as K.H. Marx. Raiffeisen didn't write a book: he just developed a model along practicing it. Raiffeisen was also the man of Open Models: he didn't build a global business case: he just shared his experiences with anyone interested. Raiffeisen is the man on which model the industrial success of Europe could be feed. Without Raiffeisen Europe had developed much more slower, as their would not be realized the needed food feed from rural areas to the cities. Open Finance is the root of development of Europe. Open Finance is the root of private entrepreneurship. Enabling the power of a individual with a small capital to produce more than that individual could do without that investment.

OPEN EDUCATION

To ensure quality in the whole chain there's a need for education. Organizing education the old analog way is very complicated and expensive in organization costs and travel time, and geographical distances is the reverse factor why knowledge penetration will not 'fly' massive anywhere in short time. A digital education environment in the answer. This environment is in basic technology available in the combination of Drupal (organic group tech) and iMoodle (education tech). Just the content (knowledge and tests) must be entered and then it's just a matter of creating 'web traffic' by PR, affiliating based bannering and Google Adwords, to deliver massive availability of certificated knowledge.

See the regional water point advisors as independent regional entrepreneurs, which delivers both quality (control) and volume (demand) in a region. Everybody can become a local water point entrepreneur or water point advisor. Just taking a digital course (e-learning environment) and taking the online test delivers a certificate. Micro credit organization can demand of a local water point entrepreneur or a regional water point adviser that they perform the test in their presence (delivering them a joint branded certificate).

See the local water points operators as independent local entrepreneurs. They are the first phase of a water refining/distribution structure. The have a crucial function, as realizing the first phase in local water management.

TESTIMONIALS

For many testimonials regarding the models of Planck Foundation please visit www.planck.org. Let other people tell the story. That's delivers the most objective message.

It's maybe good to highlighted one testimonial specific, as it relates to the Open Finance model and is of a person originated from Holland (while other testimonials mostly are originated from other nations): It's written by a former WorldBank Director, National Governmental Mediator, Chairman SER and RaboBank CEO, who was (and still is) a global player/actor in global energy, water and food investment banking, after asking him if the WorldBank could start a WorldBank 2.0 version based on the Energy Transition Finance Model of Planck Foundation.

(in Dutch -original message language-)

"Er moet heel wat denkwerk zijn gaan zitten, niet alleen in de GRA, maar vooral ook in het ontwikkelen van modellen voor het reageren op de uitdagingen die de GRA signaliseert. Heel creatief en indrukwekkend. Zoals ik eerder al meldde kan ik mij in heel veel ervan volledig vinden. Ook het toepassen van de Raiffeisen-formule op deze situatie spreekt me aan. Bij een economie die zich in veel opzichten (opnieuw) van onderop moet opbouwen, passen ook financierings¬modellen die participatief zijn en op dat niveau werken. Dat gezegd zijnde moet ik wel melden dat de WB op dit moment niet de geschikte plek is om daarmee aan de slag te gaan. De belangrijkste, maar niet enige reden is gelegen in het feit dat de belangrijkste aandeelhouders van de bank (w.o. ook NL) alles in het werk stellen om te verhinderen dat de WB concurrentie aandoet aan de private sector, dat is het bestaande private bankwezen. Wat dat betreft is het hier soms wel frustrerend om steeds weer te zien hoe belangen in ontwikkelde landen die van ontwikkelingslanden in de weg zitten. Mijn oprechte inschatting is dat de tijd hier niet rijp is om dit soort ventures in WB-verband te starten, zo dat al ooit het geval zou kunnen worden. Bij de huidige missie en het huidige governancebestel acht ik het uitgesloten. Ik blijf graag op de hoogte van de verdere ontwikkeling van uw werk."

(English translation)

"Creating the Global Resources Analysis and the further development of models that facilitate responses on these developments, must have taken quite some time. Very creative and impressive. As said before, much of it represent the way I see things and see possible solutions. The fact that you have re-vitalized the old Raiffeisen model for the current situation is something I like. By a global situation with economies that must in many perspective re-design themselves, fits certainly finance models that both are participative and have huge impacts. The WorldBank can not use this model. The shareholders doesn't allow any transaction that also had be done by the market. This is frustrating as we all know that there is demand and that this demand hasn't find its answer. I sincerely think that the WB never will be able to venture for this reason. In the present setting and governance guidelines is this even not possible. I certainly like to kept informed on the further developments of your work."

(Herman Wijffels, Director, World Bank, Washington, USA)

CONCLUSION

The result of this combination of Open Technology, Open Finance and Open Education, focused on the local water points and micro credit merge is is that wanted local water point entrepreneurs and regional micro-credit organizations have a) the best water point investment plan (delivers best ROI chances), b) a good exploitation water point calculation (delivers realism), c) a good presentation of themselves as possible water point entrepreneur (delivers transparency), d) data about possible guarantors (delivers volume) and e) data about possible controllers (delivers quality): all the facets a local/regional micro-credit organization needs for granting micro-credits, all that local water points needs to get a micro-credit.

It's can improve rural village and/or city area economies world wide severely. Just by realizing some simple digital models, promoted by the right (influential) people. Later-on other facets (small local business concepts) can be brought in using the same tools and realization infrastructure. Concerning following up projects the sky is the limit: any type of everywhere needed small local business can be realized with this system. Local development the root of global development. This system opens up local economies for improvement, fast, good and in high volume. In the peripheral areas of economies: there where they needed. It's the best combination of the 'think global, act local' vision and enables it by supporting relative simple, but very effective digital structures.

It's also a perfect way to promote Holland as nation with wide water technology knowledge, which will have a spin-off effect for mesa end macro water technology.

COLOFON

This Micro Water Technology and Micro Credit Merge proposal is developed during 2009 (partial based on earlier research) within Planck Foundation (www.planck.org) under leadership of Gijsbert Graafland special for the combination of Open Foundation (www.openfoun.org) and Netherlands Water Partnership.

Amsterdam, February 1, 2010

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