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### Making Aid Work

Siew Huey Ko

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# Making **AID WORK**

What is needed is a different take on aid to poor countries. Through a case study of a project in Vietnam titled 'Spring of Life', Ko Siew Huey describes how a non-governmental organisation is attempting to create real choices by offering aid via solutions that are sustainable, suitable and scalable.



*Clean, safe water now available at the turn of the tap.*

The objective of development aid is poverty reduction. While the end is clear, the means with which to reach this goal is often fraught with challenges. Critics of development aid point to research showing small and statistically insignificant effects of aid volume on growth.<sup>1</sup> Zambian economist, Dambisa Moyo, who was recently named one of the world's 100 most influential people by *Time* magazine, argues that aid has had the negative effect of fostering a dependency culture in developing countries.<sup>2</sup> Optimists, on the other hand, cite the positive strides made in other indicators of human development such as literacy rates, infant mortality rates, life expectancy and chronic malnutrition, to bolster their case.

As long as wide development gaps exist between nations, aid will continue to be a recurring issue. By reframing the debate, a much more constructive conversation may take place. Instead of questioning how aid makes a difference to people, the international community should reflect more critically by analysing how people can make aid more effective.

In a recent book entitled 'Lessons from the Poor', researcher Alvaro Vargas Llosa observed that the key to alleviating poverty in a society is 'the development of the entrepreneurial reserves that exist in its men and women'.<sup>3</sup> Donor dollars are best allocated to areas that facilitate the discovery of locally appropriate solutions, rendering assistance in a way that respects the community's capacity to organise and sustain development efforts. By tapping into native wisdom and resources, aid can lead to income generation, sustainability and faster replication through networks of local enterprise.

### So How Does Lien Aid Do it?

Lien Aid is a Singapore-based NGO established in 2006 as an independent entity through the Lien Foundation-Nanyang Technological University Environmental Endeavour. It is now focusing on, among other things, making safe water and sanitation accessible and affordable to poor communities in Asia. A project was launched in Ha Tay province, Vietnam, because according to UNICEF test results (2001-2004), nearly a quarter of its tube-wells showed a concentration of arsenic over 0.05 mg/l. This was a level deemed to be a health risk according to World Health Organization (WHO) standards, which has 0.01mg/l as the toxic threshold for arsenic in drinking water.

Long-term exposure to drinking water that has been contaminated with arsenic leads to a myriad of health problems such as cancer of the skin, lungs, bladder and

By showing the poor what is possible and then trusting them to make the right decisions about which solutions to adopt, it is possible to not only optimise the allocation of developmental resources, but to also sow the seeds for lasting change.

kidney.<sup>4</sup> WHO recommends that the most important preventive measure in affected communities is the provision of alternative sources of drinking water or arsenic mitigation in existing sources. As one of the areas most affected by arsenic contamination in the Red River Delta, Trung Chau commune in Ha Tay province was selected as the site for the pilot project. Our intervention focused on mitigating the long-term effects of arsenic exposure, especially given that an arsenic level 30 times that of the WHO standard was detected in the water sources, during the needs assessment phase.

In partnership with its sister organisation, the LIEN Institute for the Environment (LIFE), Lien Aid addressed this situation by developing a viable intervention. A household arsenic treatment system was designed and 74 units were constructed. Initial tests have proven promising, with results showing that 96% of the units deployed were capable of reducing the level of arsenic from as high as 0.3 mg/l in raw water to below 0.01 mg/l, making the treated water safe for consumption.

### Adapting to the Local Context

The first order of business was to start finding out what resources were available in the community. Utilising readily available local resources enable programmes to be sustainable because the community can continually harvest them to concoct the remedy. Using local materials also ensures that these solutions remain affordable and are appropriate for the local context.

Interviews with the community revealed that most households were already using traditional sand filters to treat arsenic contaminated water, but water quality tests found that the treated water from 86% of the sampled units fell short of WHO standards. LIFE identified suitable, affordable and readily available natural materials to be used as adsorbents, with the aim of better utilising iron present in the existing groundwater to remove the arsenic. In consultation with a local expert from Vietnam National University,



*To complement the infrastructure project, a public awareness campaign aimed at informing villagers of the dangers of arsenic and the solutions available was launched. Low tech but appropriate media such as village loud speakers, signboards and leaflets were used.*

laterite was chosen out of a range of materials owing to the following reasons:

- It can be used in its raw form without complicated treatment;
- It performs relatively well as an adsorbent to reduce the arsenic level in tainted water;
- It has a relatively bigger capacity to absorb large amounts of arsenic before its effectiveness wanes;
- It is relatively cheap because good quality laterite is abundant and easy to find in Vietnam.

### **Integrating Knowledge**

How should suitable solutions be generated to tackle the problem at hand? To design a product or service that fits its purpose, more often than not, it is about simple solutions that work. Rather than reinventing the wheel, it made sense to survey the landscape and see what solutions were currently available so that this integration of knowledge produced something that was useful. LIFE started the design process by studying and modifying existing sand filter designs prevalent at the time. The sand filtration system that was eventually adopted gave an average removal rate of about 85% of initial arsenic level, which was adequate for washing and bathing. However, an additional laterite

adsorption compartment was installed to remove an extra 10% of the arsenic, lowering the final level in the water to the WHO standard for drinking and cooking. Further modifications were introduced such as a backwashing system to reduce the need to frequently replace the sand in the filter. All this was achieved at a mere 5% price premium to the traditional sand filters.

### **Developing Alliances**

Having developed this solution, which was found to be suitable and sustainable, the next logical step was to scale it up. At this point, players from different sectors needed to get involved to execute the solutions. More could be accomplished by leveraging on existing strengths and rounding up resources that were available. In partnership with local NGO, Centre for Water Resources Conservation and Development (WARECOD), training was arranged for community masons who were to build the systems. The village heads were also invited to the training sessions as it was important to garner the support of opinion leaders who would be in a position to influence the outcomes of these combined efforts. Not only were they taught the technical skills of building household water treatment systems (both the laterite and traditional sand filter models), communication skills were imparted so that this core group could inform the rest of the community about the harmful effects of arsenic in drinking water. Both these soft and hard skills enabled the building of a team of community advocates and marketeers for the household water treatment systems.

The system is effective yet simple to build. Its popularity is evident in its unorchestrated voluntary promotion via word of mouth to other villages outside the pilot sites. Stories of entrepreneurship also surfaced. A mason trained by Lien Aid is reportedly providing free labour for the construction of a single household system if a customer successfully manages to sign up 10 households that require the system. Villagers are also organising bulk purchases of construction materials to save on transport costs. Truly, creativity is never in short supply even in seemingly impoverished places. The participation of government and the subsequent institutionalising of an approach into public policy is an integral part of scaling the effort upward. To this end, Lien Aid and LIFE are currently working with the Ministry of Natural Resources and the Environment to pilot more models and to come up with appropriate solutions for different regions, adding to the menu of available choices for the people. Follow-up activities would include consolidating and developing informational materials which



Locals were trained to build, operate and maintain their own household arsenic removal water filters.

list available solutions and publicising and raising awareness among individual households as well as local government officials. Together, LIFE and Lien Aid hope to eventually contribute to the dialogue on developing a policy framework within Vietnam to mitigate arsenic contamination.

### Challenges

Even though the technical solution was created with input from local experts and was adapted from available local technologies, the final outcome was nevertheless one based on technology transfer from a foreign source. Perhaps due to insufficient levels of understanding, despite having provided training in operations and maintenance to the households, some have either made improper alterations to the system or have not followed proper operating procedures, thus potentially impeding the effectiveness of the system. Lien Aid and LIFE have plans to monitor the usage of these systems and provide further technical training as needed. However, the ideal scenario would be to co-create solutions with local innovators so that subsequent iterations of the model at the local level may be based on sound fundamentals. However, this would involve dedicated resources being put into local capacity development which is the limiting factor in the transition to a more equitable development partnership.

There has been spontaneous emergence of entrepreneurial activity which has helped in the propagation of the benefits of this technology. But

beyond the general activities such as awareness raising and communication skills training, more can be done to nurture the green shoots of entrepreneurship by identifying local entrepreneurs and providing them with business mentoring.

### Lasting Change

By showing the poor what is possible and then trusting them to make the right decisions about which solutions to adopt, it is possible to not only optimise the allocation of developmental resources, but also to sow the seeds for lasting change. Exercising choice is an empowering act that kickstarts the inner transformation of individuals and communities. Such an approach ensures that aid money is utilised to offer solutions that are adapted to the local context so that local entrepreneurs can continue to reproduce the solutions. Existing knowledge is integrated so that effective solutions can be customised quickly to address unique problems and alliances are leveraged to achieve economies of scale so that many more can access the solutions at an affordable price. ❖

<sup>1</sup> Robert Picciotto, "Global development and human security," *IFIC Seminar Presentation*, Tokyo, June 1, 2007

<sup>2</sup> Alex Duval Smith, "For Africa, is trade, not aid, the answer for Africa?" *The Guardian*, May 2005, 2009

<sup>3</sup> Mary Anastasia O'Grady, "Aid Keeps Latin American Poor," *The Wall Street Journal*, April 6, 2009

<sup>4</sup> World Health Organisation Factsheet <<http://www.who.int/mediacentre/factsheets/fs210/en/index.html>>



**Ko Siew Huey** is senior manager for Resource Development at Lien Aid. A Masters graduate in Public Policy from Harvard Kennedy School, her early career days were spent producing documentaries for Channel NewsAsia. In a decision to be more directly involved in poverty alleviation, she spent time in rural communities in China and Africa. As a programme supervisor with World Vision International, Ko pioneered the use of performance management tools in the China national office.