

## Crossfire

In this issue, Erich Baumann argues in support of the following statement and Peter Harvey against:

**‘Equipment (handpumps and spare parts) for rural water supply and sanitation should be delivered by private sector supply chains’**

*Dear Peter,*

I am glad you volunteered to enter the debate on supply chains. You have just completed your project, ‘Building blocks for handpump sustainability’, and have seen many successful and less successful attempts to set up supply chains.

To meet the Millennium Development Goals (MDGs), an estimated 1.5 billion people need to gain access to improved water facilities, 85 per cent of whom live in rural areas. Huge investments and millions of boreholes with handpumps are necessary to serve those numbers. However, only facilities that are kept in working order will improve the lives of poor people. Traditionally, handpumps have been delivered by government departments with donor support, or development projects have set up parallel mechanisms associated with their own project staff. In both cases, spare parts have often been provided free or with subsidies.

All too often we hear: ‘25 to 40 per cent of the handpumps are not working’. Despite best intentions, post-project problems of O&M (operation and maintenance), coupled with difficulties in reaching remote rural areas, showed that technical maintenance alone could not sustain investments. Delivery mechanisms for spare parts and repair services have consistently failed because of limited resources, and a lack of incentives, resulting in a high percentage of non-functioning handpumps.

What has gone wrong? In a project-centred approach, governments, donors, NGOs and churches purchase handpumps on behalf of users, mostly through international or national competitive bidding. Price is often the major consideration in evaluating bids.

International importers supply the handpumps. Local dealers are left with the task of selling parts, which is often not economically viable.

Although the supplier is responsible towards his client (the purchaser) he has no relationship with the end-users of his products. He delivers the pumps to the warehouse and at this point, his responsibility ends. He is not bothered about after-sales service; why should he be? In a year’s time, another supplier will get the next contract, because he is five shillings cheaper.

Where does that leave the users? Communities pay (often very high) upfront contributions to get a water point, but the money disappears into the coffers of the administration of the project. Regardless of a demand-responsive approach, nobody ever asks the users whether they would prefer buying a pump in the next town. After some time, they might be looking for spare parts and cannot find them. They do not know who is the supplier because the project is long gone. The little nameplate on the pump tells them it comes from far away, perhaps India ... and where is that?

We need to change this practice drastically. As long as supply officers buy handpumps on behalf of end-users, we will never achieve sustainability. Instead of asking for a contribution, we could set up mechanisms by which villages buy their pump at the local private dealer. When a borehole is drilled, the projects could tell the village that they can now go to the local dealer and buy the handpump themselves. If the community contribution is not enough for a full pump, the projects could issue a voucher that covers the difference. The supplier would not be selling handpumps to projects, but directly to real people, the end-users of his products, and this could make a big difference. The local dealer sells the pumps and spare parts that he gets from a national supplier/producer. The demand is there: continued sales of pumps and services to the users provide business opportunities for the private sector, for the national supplier as well as for the local dealer and mechanics.

Some countries are moving in this direction. Uganda and Tanzania have launched initiatives to set up district-based dealers for handpumps and spare parts. I wonder how these few ideas tally with your experience and whether they could be one of the ‘Building blocks for Sustainability’.

*Warm regards,  
Erich*

*Dear Erich,*

It’s a pleasure to engage in this debate with you. I know that the issue of private sector supply chains is one we have discussed before and I think we can agree that there is certainly no easy solution to ensure sustainable supply chains for rural water supply and sanitation services.

Of course, I agree with you that ideally communities would buy their own pumps (perhaps with external support) from a local dealer who supplies both handpumps and associated spare parts. But there is a strong need for realism here. Such an approach would require a high level of donor consistency, which experience suggests would be difficult to attain. There are simply too many vested interests among donors, manufacturers and governments for them to sign up to a uniform approach promoting local procurement. Most donors and government departments opt for the lowest price internationally and often persuade governments to waive import duties; their primary focus is on cost-per-beneficiary rather than long-term sustainability. Such a mindset will take a huge international effort to change, especially as the efficiency of water supply investment programmes would initially be seen to decrease.

You admit that the private sector argument relies on continuing demand for pumps and services to provide business opportunities at national and local level. Therein lies a major part of the problem. WEDC’s recent research suggests that handpump density in many countries is simply too low in rural areas for there to be sufficient demand to generate adequate

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profits for viable private sector involvement. Yes, combining the supply of spares with the supply of pumps goes a significant way to avoid the commonplace problem of non-viable spare parts supply chains, but as you know from your own extensive field experience there are few successful examples of this approach.

I agree that, although it should, the 'demand-responsive approach' rarely gives communities real choice. WaterAid's experience in Mozambique indicates that when given a choice communities sometimes opt for simpler, cheaper technologies than handpumps, such as bucket pumps and protected wells, which they are more confident that they can sustain. Bearing this in mind, what will persuade a community to buy a handpump from a local dealer? If communities select alternative technologies, as they have every right to do, this will decrease demand for pumps, thereby further threatening the viability of local private sector supply chains.

The last point I'd like to raise in response to your argument is related to poverty and human rights. In 2002, the United Nations Committee on Economic, Cultural and Social Rights agreed a General Comment that defines access to safe and affordable water as a human right. Supplying water and associated equipment cannot, therefore, be compared to providing bicycles or soft drinks as is sometimes argued, and consequently it is not logical that a private sector business approach should be taken. Where the rural poor are denied access to safe water because of high costs or ineffective supply chains, subsidies may well be appropriate. In most high-income countries public sector water supply is the norm; can we really expect less-developed countries to adopt subsidy-free private sector water supplies when most of us in the developed world remain subsidy rich?

Appropriate and sustainable supply chains represent one of the 'building blocks' for sustainability, but let's not go as far as to say that all equipment should be delivered by private sector supply chains. In many cases this simply cannot be and should not be.

Warm regards,  
Peter

Dear Peter,

Let us start with your last point. I agree with you, Peter, that where costs are high for safe water and people are too poor, mechanisms need to be found to make access possible for the rural poor. If 'safe' water is not affordable by orthodox means, it might be necessary to find new ways. The Rural Water Supply Network (RWSN – former HTN) has chosen 'self-supply' as one of its key activities. Self-supply is an approach, which focuses on interventions at household or small-group level. It is complementary to conventional water supply where communal approaches may be less sustainable, because of alternative sources, low density and scattered communities. The aim is to establish these household solutions, alongside communal supply, as acceptable options in water strategies among governments, NGOs and donors. Your example from Mozambique shows that a real demand for such cheaper technologies exists.

Simple technology solutions have limitations and are not always feasible; higher cost solutions are needed. In such areas, financial backing might be required. Governments might decide to operate a subsidized public service. If they find the resources, then there is nothing wrong with that. Innovations and new ideas might be needed to supplement government resources non-conventionally.

However, the issue we are discussing is the provision of goods (handpumps, bucket pumps, well covers, etc.) and services (repairs, quality checks, etc.) through private companies. Your answer suggests the perception that private sector involvement means profit maximizing and exploitation of the poor. I feel we should rather look at the private supplier as a partner. He needs to work in a non-discriminatory environment in which he has a chance to produce or sell a useful product for a fair price. Supply chains are permanent mechanisms to transform raw materials to products, which are sold in response to the customer's demand. The emphasis is on 'permanent', meaning permanent players in the chain. Projects and NGOs are not permanent. Governments are permanent and should have a regulatory role by setting and enforcing

quality standards. Private suppliers could be permanent if a constant demand exists.

This brings us to your point of demand and business opportunities. Without adequate demand, supply chains will not function. Africa alone needs about 600 000 boreholes with handpumps to meet the MDGs. This represents a substantial demand that could develop sustainable supply chains, as is beginning to happen elsewhere. In Bangladesh, UNICEF does not buy handpumps any more, but financially supports the communities that want to buy a pump instead. The villagers now go to the nearest *mistry* (pump dealer-cum-installer) and place an order for a pump. When the pump is installed, the villagers pay the *mistry*. When the *mistry's* stock runs low, he orders new pumps from the local producer who manufactures the standardized pumps. At the same time he orders spare parts, which he keeps in stock until he can sell them. He also makes some additional money on repairs.

I heard about this arrangement from the manufacturer who says: 'Life is much easier now. Earlier, UNICEF ordered 5000 pumps and then did not pay for them for a year because of some problems about alleged quality deficiencies or administrative matters. We did not get another order for two years – it was either feast or famine. Now, all the local dealers come to us with a steady flow of small orders and they pay on delivery. We are continuously producing pumps as per demand and we get our money on time.'

Something similar is possible in Africa. I was recently talking to the producer of NIRA pumps in Tanzania. He told me that he has sold about 10 000 NIRA pumps over ten years. Only 25 per cent of the pumps were actually purchased by the big projects and government. The other 7000-plus pumps he sold directly to private users and small NGOs (e.g. priests who dig five wells, etc.) If 75 per cent are sold directly to the users, could he not do the same with the other 25 per cent?

You pointed out the obstacles in market creation (donor consistency and vested interests). They clearly exist, but I believe we should look out for opportunities rather than despair and say how difficult it is to accomplish change.

Decentralized implementation and SWAP (Sector-Wide Approach) could offer such chances. Procurement at local government level is new and we can work with the decision makers towards models that would ensure the availability of goods and services through the local private sector, meeting a demand created by the need for safe water supply services by the users.

*With warm regards,  
Erich*

*Dear Erich,*

Thanks very much for your informative reply. I think we are both agreed that the self-supply approach of promoting household and small-group solutions is essential, but that sometimes higher-cost solutions are needed. I do not believe, however, that this necessarily means that there is a massive demand for conventional handpumps. 'Outsider' engineers and technocrats tend to promote imported, quality-finished, high-cost technologies when locally manufactured handpumps and rope-pumps may often be more appropriate, especially within a sub-Saharan Africa context. The work of WSP on supply chains indicates that, invariably, the more complex the technology used, the longer (and hence more complex) the supply chain needed to support it. By promoting truly local manufacture, private-sector supply chains may indeed be the answer, but I suspect that this is a long way off yet.

I see nothing inherently wrong with private sector partners making profits



Sometimes demand for spare parts is too low for businesses like this to be viable

and recognize that they may also be motivated by other incentives such as esteem and public service. Private sector participation does not necessarily mean exploitation of the poor, but the bottom line is that private enterprises need to make adequate profits to make a living, and despite MDG targets, demand for goods and services is currently insufficient to ensure adequate profits in most rural situations in developing countries. Government regulation is also crucial and I'm glad you recognize that government subsidy may sometimes be appropriate.

I agree that supply chains and the players within chains need to be permanent. Let's not assume, however, that private partners, or even government institutions, are automatically more permanent than civil society stakeholders. Recent research in Malawi has shown that where faith-based, NGO and civil society organizations are indigenous, well established (sometimes for several decades) and willing to commit themselves to providing a not-for-profit service, they can provide effective and sustainable supply chains which are often more stable than those offered by private enterprises. Private companies can also work in partnership with civil society. In Busoga region, Uganda, handpump spare parts have been supplied by a foreign manufacturer to end users via a local faith-based organization for more than 20 years. There are similar examples of successful local NGO and faith-based organization supply chains in Ethiopia, Ghana, Kenya and Mozambique, to mention just a few. If something works, we should not dismiss it out of hand simply to adhere to World Bank policies that promote private sector participation.

The UNICEF experience in Bangladesh that you describe is an excellent success story and I'm sure that this model can be applied elsewhere, though not everywhere. Donor commitment and practices have a crucial role to play. As you've identified, decentralized implementation and SWAP have the potential to provide opportunities for market creation but only if donors and governments work seriously to develop local capacity for implementation, support

and regulation. The topic of this discussion asserts that 'equipment' should be delivered by private sector supply chains, and yet, as you have alluded to, it is essential that the provision of equipment and services is combined if opportunities for local private sector participation are to be maximized. Indigenous private sector involvement provides significant opportunities for service delivery and economic growth in some cases, but will not always be feasible, especially in sparsely populated areas.

Supply chains are, of course, only a small part of the picture. In order to develop sustainable water and sanitation services there is also a need for appropriate policy and institutional frameworks, financing strategies and community mobilization. One of the key findings of WEDC's recent research was the need for institutional support (be it from government, NGO or faith-based organization) to communities to enable them to sustain their water supplies. Village Level Operation and Maintenance (VLOM) was initially perceived by many to mean that communities could be simply left alone to manage supplies in a sustainable way; we have since seen how wrong this assumption was. The danger of jumping on the privatization bandwagon is that this may lead to the perception that if supply chains are left to the private sector they will be sustained. Just as VLOM was not a panacea for sustainability, neither is privatization.

Let us hope that we can raise awareness of the need for flexible approaches that encourage indigenous private sector involvement where appropriate, but as part of a realistic assessment and not as a reflex response. By considering all options and adapting these to local conditions we should get closer to sustainable rural water supply and sanitation for all.

*Best wishes,  
Peter*

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