

## 8.0 PLAN FOR COST RECOVERY

### Tasks:

- Decide on an approach to cost recovery
- Set the prices of water storage vessels and disinfectant
- Plan any subsidies or special payment methods
- Plan how funds will be managed



Possible approaches to cost recovery include:

- Providing vessels and disinfectant free of charge – all funding is covered by donors or government
- Recovering the costs, or part of the costs, of some project components – some funds are generated through sales of products
- Recovering all costs – all costs of the project are repaid through sale of products. This requires sale of large volumes of the products at higher prices.

In a Safe Water System project, the products are low cost items, and the project is conducted in settings with low household incomes. Consumer ability and willingness to pay are critical factors that depend on how much money people have and how much they want to spend on safe water.

## 8.1 Decide on an approach to cost recovery

Cost recovery plans will depend on the objectives of the project in terms of coverage and sustainability, and the source, amount and timeframe of funding available. Consider feasibility, advantages and disadvantages of different cost recovery schemes.

- ***Providing vessels and disinfectant free of charge*** — Providing products free of charge is likely to result in higher coverage and distribution to the people who are poorest and most in need. However, experience has shown that people do not value items as much when they are given away free. Donation of vessels and disinfectant to families may result in little use initially and no sustained use. Donation is also expensive and unsustainable in the long term. An exception to these recommendations is in disaster settings where sale of any items would not be possible.
- ***Recovering the costs of some project components*** — Most Safe Water System projects decide to try to recover some costs. This is usually done by selling products at prices that generate funds to offset some of the project costs. An advantage of charging for products is that if a product has a cost, people feel it is more valuable. A disadvantage is that some people cannot afford to buy the product. However, this can often be compensated for by some creative payment methods. Also, demand creation, through such techniques as social marketing or community-based promotion, can induce people to buy a product they might otherwise feel they cannot afford.

Usually, the original donation is used to cover the costs to establish production of water storage vessels and disinfectant, and also initial project costs such as promotion and education. Then by establishing a pricing and a payment collection system for sale of products, the project can generate some revenue. If the project can recover some or all of the ongoing costs of producing and distributing the disinfectant and perhaps vessels, the supply will be more sustainable. **In Zambia**, for example, the project recovered 80% of production costs for the disinfectant; this did not include marketing costs.

- **Recovering all costs** — With full cost recovery, a project receives a donation that is placed in a revolving fund. All expenditures for supplies, distribution, promotion, monitoring and management are recovered through sales of the products. Theoretically the project can sustain itself into the future. The disadvantage of full cost recovery is that the necessary price of the products is likely to make them unaffordable, except for relatively wealthier members of the community, and result in low demand. Because of this possibility, full cost recovery may be less likely to succeed.

**In Bolivia**, for example, in the CLARO project, full recovery of the cost of 20-liter water vessels led to an initial surplus in the revolving fund, but the project subsequently saw a decline in sales. The CARE project **in Western Kenya** managed to procure inexpensive, locally-produced hypochlorite solution, used locally available containers, and had low marketing costs. In these ways, this project attempted to achieve full cost recovery from products that were affordable to their poorest clients.

In summary, donation of vessels and disinfectant to families is not recommended because it is unlikely to result in sustained use (except in the case of disasters). Full cost recovery requires higher product pricing. Therefore, it is recommended that a Safe Water System project plan some sort of partial cost recovery. To improve the success of any cost recovery scheme, the project needs to plan for:

- a well-implemented behavior change strategy to make the home water treatment system a priority household expenditure
- creative financing schemes to help poorer families purchase the products (see 8.3 below)
- diligent collection of sales revenues to achieve sustainability

## 8.2 Set the prices of water storage vessels and disinfectant

Issues to be considered include:

- the amount people are able and willing to pay (depends on availability of cash, seasonality of income in agricultural

economies, seasonality of disease, and also factors such as peoples' priority for expenditures, perceptions about diarrhea and water safety, local practices, and effective promotion and education)

- the proportion of costs that needs to be recovered from sales
- the price needed to balance coverage with cost recovery in line with the project's health and financial objectives. If prices are set too low, high coverage may be achieved but less revenue will be generated. If prices are set high, coverage may be low initially but effective promotion can usually increase demand. Also, most projects find that it is easier to lower prices than raise them; rising prices can cause resentment and drop out.
- any changes expected in the local market in the future

### ***Balancing affordability and incentive***

Set low prices that most families can afford. Market research determines consumers' ability and willingness to pay for special vessels and disinfectant solution. Where products will be sold through the private sector, they must be priced so that distributors and sellers are motivated to distribute, promote and sell them. Prices should allow sales persons (such as health promoters) to earn a small commission for sales. Health centers and commercial outlets should receive income from sales. These incentives can be extremely effective to stimulate sales. As a guide to an appropriate profit margin, look at margins on products of a similar price and life span.

### ***Pricing special vessels***

For specially designed water storage vessels, the price objective may be to recover as much as possible of the manufacturing costs (and the cost of shipping, if significant), plus a distribution margin (some projects have used 25%). If this price is too high for consumers, a pricing option such as price subsidies (for example, through the use of coupons) or credit terms may be established to lower the price or cash outlay.

Options include:

- sale at full price
- sale at subsidized price
- sales on credit
- barter
- payment in kind (e.g., vessel in exchange for work, see Figure 10).

One method to estimate a feasible price for the special vessels is to determine what people pay for the vessels they currently use, or other similar household items such as plastic washbasins. If the special vessel has a price like other commonly-used containers, people will be more likely to purchase it.

Because a vessel is a high-priced item in comparison with disinfectant and can be too expensive for some consumers, some successful projects have sold vessels at a subsidized price and disinfectant at a break-even price.

### ***Pricing disinfectant***

For disinfectant, the price objective may be to recover manufacturing and bottling costs, plus a profit margin. It is best to sell disinfectant at a break-even price with perhaps a slight profit, depending on local packaging costs. The break-even price may not include support for sale and distribution.

To set a price for disinfectant, first calculate the cost to produce one bottle of the disinfectant, including salt, electricity, operator and bottler, bottle, label, and transportation. Add a percentage markup, depending on your project's plans for distribution, such as a margin to cover costs of transportation, a profit for retailers, or an incentive for volunteers involved in promotion and sales.

To determine if this price will be reasonable, calculate what the cost would be per household per year. Then compare this with annual household income. (However, data on average household income is often difficult or impossible to obtain.)

For example:

Price of one bottle of disinfectant = cost to produce and bottle plus 30% retail markup = \_\_\_\_\_

Annual cost per household = Price of one bottle X (number of bottles needed by average household per year) = \_\_\_\_\_

Average annual household income = per capita average annual income X average household size = \_\_\_\_\_

Annual cost of disinfectant per household / Average annual household income = \_\_\_\_\_%

**In Zambia**, the cost to produce one bottle of disinfectant is \$0.20. There is a 25% retail markup, so the price of one bottle is \$0.25. Annual cost per household = \$0.25 X 12 bottles = \$3.00  
Average annual household income = \$370 X 6 persons in the household = \$2220  
Annual cost of disinfectant per household/average annual household income = 3/2220 = 0.1%

It is unlikely families will buy disinfectant if its cost exceeds 2% of the average annual household income.

One method to estimate a feasible price for the disinfectant is to determine what people currently pay for household products they currently use for cooking fuel or hygiene, such as charcoal, wood, soap, or laundry detergent. If the disinfectant is priced like other commonly-used household products, people will be more likely to purchase it.

If it is possible to sell disinfectant in returnable bottles, the unit cost of disinfectant may be lowered substantially. The pricing of returnable bottles and bulk disinfectant will need to include a much higher profit to compensate disinfectant vendors who purchase in bulk and then refill containers returned by consumers. Alternatively, empty bottles can be collected by vendors and returned to the manufacturing location to be cleaned, relabeled and refilled.

### **8.3 Plan any subsidies or special payment methods**

Discuss with community representatives as early as possible the projected costs of vessels and disinfectant. Also discuss their perceptions of the costs and whether subsidies or special payment methods are needed. Ask them which payment methods are most promising in the target communities.

## ***Subsidy***

Subsidy is one way to increase the affordability of products, but it may be a short-term option because it relies on external donor support. Subsidy can make vessels affordable to poorer members of the community and increase demand. However, it may result in increased purchases only in the short term, with demand falling if and when the subsidy is removed.

Subsidies may target particular groups or areas. The issues to consider include who should benefit and how to ensure that the target group receives the benefit and not others. For example, the project may target homes with children and sell them the vessel at a reduced price. A potential problem with subsidized projects is that poor households may purchase the vessel at the subsidized price and then resell it at the regular price to earn the difference. This possibility defeats the purpose of the subsidy, which is to increase access to the poor.

Another approach is to sell a basic vessel for a low price and a more expensive vessel with special features, such as insulation, for families who want and can afford it. Profit from the more expensive vessel can help cover the costs of producing the basic vessel, thereby keeping its price low for the neediest families.

## **PAYMENT METHODS**

Cash purchase of a water storage vessel is too expensive for some people. Spreading the cost is one way to make vessels more affordable. Possible payment schemes include:

- sale for a single payment
- sale with installment payments
- payment in kind (for example, water vessel for work project)
- employer or community credit schemes.



To date, water projects have all sold vessels for a single payment. One project sponsored a “Water Vessel for Work” project in which some individuals worked on a community improvement project, such as building a health post or community center, digging drainage ditches to remove standing water, or planting a community garden. When the project was completed, participants were “paid” a vessel and disinfectant. This approach allowed families to obtain a vessel with no cash outlay, but the vessel had value because it was earned. (See Figure 10.)

Administration of credit schemes is not easy and can be time-consuming, but may be considered where the infrastructure is already in place and operational.

### **Figure 10: Steps of a Water Vessel for Work Project**

1. Meet with the community to
  - introduce products,
  - determine interest and motivation, and
  - define community improvement projects in which many can participate.
2. Obtain funding from local government, NGOs:
  - for vessels and disinfectant, and
  - for project materials.
3. Define work day. Purchase products and materials.
4. On work day, register participants, assign tasks, and verify participation for entire work day.
5. Upon project completion, distribute vessels and solution.

*Suggested projects:*

Build or improve health posts, community centers, or schools  
Dig drainage ditches to remove standing water  
Prepare, plant, weed, and cultivate a community garden  
Build desks and chairs for school or community center



## 8.4 Plan How Funds Will Be Managed

Important decisions include whether the project or other institutions within the community will manage the money and how it will be handled. Management needs to ensure accountability for funds and supplies. Financial controls are required to prevent misuse or theft. To achieve sustainability, management of funds must include diligent collection of sales revenues. Lenient payment policies will lower cost recovery and sustainability.

Issues to consider include:

- capacity of different organizations, groups or individuals for management of funds
- sustainability of the procedures
- security of funds and supplies

***Project management of funds*** – Some projects have established their own system of collecting funds generated from product sales to community members or retail outlets or through health facilities. Experience shows that allowing health facilities to retain some revenue can improve staff motivation and service quality.

Project management of funds has several potential drawbacks:

- The project may not have the capacity for the work created by managing funds.
- The community is not involved.
- The system is only as sustainable as the project.
- The project may not be able to receive payment for supplies at the time of hand-over if outlets or individuals do not have funds to pay up front. Collecting money in arrears can be difficult.

Project managers also need to consider the safety and security of project staff, who may be expected to transport funds generated from product sales.

***Community management of funds*** – Some projects work with community organizations, such as women's groups, neighborhood health committees, and community pharmacies, that can

buy and sell products, bank funds generated, and use the funds for resupply. The ability of local health centers or neighborhood committees to manage inventories and collect and manage funds will vary widely. Commercial retail stores and shops will have these abilities. Although community involvement can potentially increase sustainability, any project considering this approach needs to consider carefully the experience of community committees:

- Policies must be clearly defined, written down and understood by all members of the committee, project and community to avoid misunderstandings.
- Procedures to control money handling, banking and access to banked funds must be established to prevent theft.
- In anticipation of the end of external support, systems must be created to enable the community to use funds generated to procure and distribute new supplies.

The most important policies to define are the roles and responsibilities of the project, the committee and its individual members, and how the income generated will be used.

Procedures to control money handling can reduce the risk of theft of community funds. Procedures can be quite complex and time-consuming, and outside regulation of village committees may sometimes be required. But they can also be quite straightforward, such as requiring signature of both a neighborhood health committee member and an appointed health worker to withdraw funds from the bank. Some projects have found that women are more trustworthy in handling revenue and managing funds.