

HOW TO ACCELERATE... WITH URBAN TOTAL SANITATION AND SOLID WASTE MANAGEMENT

WASH Alliance International has developed the “Urban Citizens Led Total Sanitation (UCLTS)” approach - a Community Led Total Sanitation approach adapted for the urban context. Like CLTS, UCLTS delves on total sanitation, but goes beyond just the provision and use of toilets and elimination of Open Defecation (OD) practices. It includes addressing urban sanitation challenges that impede access total sanitation in the urban context such as burst/clogged drains, open/blocked sewers, solid waste, grey water, flying toilets, used diapers and open potties with fecal matter. UCLTS therefore relies on a collaborative approach of all stakeholders to ensure all these challenges are addressed, with local WASH Alliance partners as facilitators.

One approach that should be implemented alongside UCLTS is Decentralized Solid Waste Management (DSWM) that allows private and community solid waste enterprises to provide general solid waste collection services for a fee from households, institutions and business premises in the city. This involves collection, transportation and safe disposal at designated refuse sites. Other businesses can for example separate useful materials for reuse and recycling from three waste streams (such as paper, plastics and biodegradables). The two pathways in solid waste management take a business approach, which generate income for livelihoods and contribute towards cleaner urban environments. In the DSWM model, local governments regulate and provide an enabling environment for the waste enterprises to play their business oriented service roles in service provision while, again, WASH Alliance partners facilitate the process.

METHODOLOGY

Combined, the two approaches of UCLTS and DSWM are used in the urban context to accelerate the achievement of Open Defecation Free towns and total environmental sanitation. The following are key steps each take to ensure progress towards total sanitation.

1. Getting ready

For a town to be declared ODF, the urban population must be having access to and using improved sanitation facilities with hand wash facility and pit covers, no sign of open defecation, no open sewage, no indiscriminate refuse disposal and no scattered used diapers. This means both approaches (UCLTS and DSWM) must work out in tandem to ensure the populations can access the sanitation facilities and waste management services for total sanitation to be realised. Get yourself ready for successful UCLTS with the following steps:

- First of all, start with the end in mind: have a clear vision of your objective and your acceleration strategy by using UCLTS and DSWM.
- Set up a project team with the key facilitating partners and main stakeholders such as local governments, financial institutions, resident committees and entrepreneurs. Co-create with them the UCLTS and DSWM process and strategy, and discuss roles and responsibilities. Make sure you are using existing government and community structures. This helps to use fewer funds to reach a wider population.
- Facilitate multi-stakeholder dialogue and ensure active participation of all local actors involved:
 - Supporting access to local financing for appropriate sanitation and SWM investments. This way, landlords can take loans to construct improved toilets. Be aware that these financial products can be cost-effectively expanded to other areas in the country, boosting acceleration.
 - Landlords need to be made aware of the need to provide safe and improved sanitation facilities.
 - Sensitization of government officers, mentorship and coaching on the processes as well as supporting creation of an enabling environment through policy development. A positive enabling environment by the local authority enables private sector actors to play their roles.
 - Support an enabling environment for urban communities and private waste enterprises to provide paid waste collection and material recovery business services
- Prepare training to equip the key stakeholders involved with necessary skills and knowledge to successfully implement UCLTS and DSWM:
 - Sensitization and mobilization of urban citizens for active participation and information on planned paradigm shift (triggered by UCLTS and DSWM), including awareness on rights to better sanitation, which leads to the people demanding sanitation and waste management services from their landlords.
 - Building capacity and strengthening roles of government staff in responding to the citizens’ sanitation and waste management needs
 - Training of governmental staff (public health officers) in UCLTS and Faecal Sludge Management (FSM), and more importantly, make awareness on UCLTS and FSM of residents part of the health officers’ performance contract targets to encourage acceleration beyond implementation sites.
 - Training of landlords on WASH-micro-financing
 - Training of local artisans on various sanitation technologies, and provision of technical assistance in the total sanitation approaches.

Specific steps to implement the UCLTS approach and DSWM model follow below:

2. UCLTS Approach

Implementing UCLTS entails pre-trigger, trigger and post-trigger activities:

1. Visiting the urban area to be triggered 2 or 3 days prior to triggering so that you familiarize with the town, its citizens and identify the physical features
2. Identifying who are the residents are, what they do, who owns & manages the buildings
3. Meeting the local administration in-charge of the town or estate
4. Meeting other ministries and organizing staff working in the town or estate
5. Identifying most common sanitation problems, grey water, open defecation and wash hand facilities
6. Identifying a good meeting place which is centrally placed in order to reach as many residents as possible
7. Conduct the trigger sessions using a qualified facilitator
8. Conduct follow-up and post trigger activities (critical is linkage with solid waste management teams) towards ODF and total sanitation
9. Ensure adherence to FIETS sustainability principles
10. Support financing of sanitation and waste entrepreneurs by local banks
11. Equipping waste enterprises with key business skills and knowledge to do their work better
12. Institutional capacity building of all waste actors, for example through formation and growth of Solid Waste Associations
13. After some first successes, make sure the UCLTS guidelines are approved by the national government. You could do this by setting up an urban sanitation technical working group and working together with the relevant WASH bodies at the national level and the Ministry of Health.

3. DSWM Model

The necessary preconditions to implement an accelerating DSWM approach are as follows:

1. Political engagement and good will are paramount by city leadership to decentralize waste management services (see "getting ready")
2. Developing or making use of appropriate laws and policy framework to support public-private partnership initiatives in the paradigm shift
3. Facilitate the arrangement of budgetary allocations by the local government to support operational costs in regulation and coordination of waste management
4. Sensitization and mobilization of local residents for active participation and information on sanitation, waste management and recycling, so that they will demand these services from their landlords
5. Zoning of areas for effective management and open tendering systems for local sanitation and waste entrepreneurs, giving them a license as official government partner.
6. Official introduction of the licensed sanitation and waste entrepreneurs to the local community by the city authority.
7. Appropriate capacity building of local sanitation and waste entrepreneurs for effective Sanitation and Waste Management service delivery
8. Material recovery culture for livelihoods and environmental sustainability should be encouraged
9. Regular monitoring and coordination of the sanitation and waste management service provision operations by city authority (with limited support from NGOs)

CHALLENGES, BOTTLENECKS AND MITIGATION MEASURES – EXPLAINED THROUGH THE NAKURU UCLTS PROGRAMME

1. The lack of verification frameworks or certification systems for Open Defecation Free (ODF) areas

Mitigation: The Nakuru UCLTS project team together with the Nakuru County department of health and other partners involved in WASH are in the process of developing guidelines relevant for use in the urban context – advanced draft guidelines document is available being informed by UCLTS lessons and experiences from Nakuru which has the potential to further impact on all other urban areas in Kenya if accepted by national ministry of Health. This will go a long way in claiming, certification and verification of the ODF status in Kenya.

2. Absentee landlords who do not provide adequate sanitation facilities for tenants, triggering open defecation and illegal garbage dumping

Mitigation: Landlord forums have helped in sensitizing them on the need to provide adequate sanitation for their tenants. Where there is noncompliance, the public health officers invoke the public health act and give them notice to make the corrective changes.

3. In low-income areas there is a high latrine-user ratio (few toilet units against a number of users) and a lack of space to allow for construction of adequate latrines

Mitigation: This situation makes compliance to international user ratios for shared facilities difficult. In Kenya, therefore, a gradual increase of sanitation units up to optimum units is accepted by the line department of the Health Ministry to reduce financial burden to landlords

4. A lack of access to sanitation financing to invest in improved sanitation facilities from local banks due to high interest rates

Mitigation: Since 2015, bank interest rates went up to about 20% annually making bank loans unaffordable to low income earners. However, the landlords are leveraging own resources for sanitation investments after being triggered through UCLTS. Negotiations with one local bank by the project team to provide affordable sanitation investment loans are ongoing. The Kenyan Government has directed all banks lower their loan interest rates to only 4% above Central Bank Rate, which is currently fixed at 10.5%

5. The lack of capacities of urban citizens to practice waste separation from the source

Mitigation: Waste enterprises (collection for safe disposal and material recovery) deal with mixed wastes. This lowers the quality of recovered materials and poses challenges of managing the refuse at the dumpsite. The current Environment Management Bill 2015 supported by the project team has captured source separation at source and material recovery/recycling as key features in Nakuru County in line with globally embraced Integrated Solid Waste Management framework. At the same time, modernization has led to a new type of used diapers, which has no clear pathway for waste management. Nakuru County should develop a clear disposal plan of used diapers by mothers and caregivers.

6. Non-compliance of waste management amongst households especially in low-income areas.

Mitigation: continuous awareness campaigns by the project team and the Kenyan Environment Department have improved compliance. Close liaison with plot owners to directly pay waste collection fees and make monthly rent all-inclusive of waste collection fee is working well.

Timeline

As general urban guidelines have not been established yet, we need to borrow the timelines from the rural CLTS approach: rural CLTS takes between 3-6 months before achieving ODF and becoming totally sanitised. We have to take into account however the far more complex WASH structures and challenges in an urban setting. Moving the population towards total sanitation therefore very much depends on the trained facilitators, natural leaders and community health assistants.

Partners

For more information you can contact:

- WASTE
- PRACTICA Foundation
- Amref Flying Doctors

Tools available for UCLTS approach:

1. Rapport building/introductions exercises
2. Social Mapping to identify the features in the programme area
3. Sewage, Faeces and Solid Waste calculation models
4. Flow Diagram and food contamination pathways
5. Calculation of Medical Expenses incurred in case one falls sick due to WASH-related diseases, and food contamination (use F-diagram).
6. Dramatic acting of the processes of triggering - magnetic theatre. Triggering process using magnetic theatre to captivate the audience. Pulling the crowd whilst passing the messages.

These tools can be requested at Amref Flying Doctors at info@amref.org

Financing UCLTS and DSWM

To date the following are different options to finance the above approaches:

- Local commercial banks through setting up of a guarantee fund
- Leveraging own resources for investments, starting small and increasing gradually
- Leveraging low cost loans through Savings and Credit Cooperative Societies (SACCOs)

Financing Challenge	Mitigation
Bankability assessment issues – most clients don't easily qualify under typical bank assessment models	Most low-income people rarely have a banking history. Banks can innovatively apply alternative client income flows other than bank statements.
Limited collaterals among low income earners to access sanitation investment loans	We have been requesting bank officials to apply clients mortgage chattels as collateral - psychological encourage for loan repayments.
Increase of interest rates	Central Banks can direct commercial banks in a country to cap interest rates at specific rate
Low visibility among bank officers encourages a mind-set that loans are grants – prompting default tendencies	All financing details at community level during sanitation social marketing should be directly done by Bank Credit Officers. This will ensure that local community identity loan products with the bank and not the NGO doing charity work
Subsidy programmes close to areas where sustainable financing is being implemented induces dependency syndrome and limited interest in loan products.	Development agencies and NGOs need to lobby and advocate to County governments to embrace sustainable development approaches. This is well done at Inter-agency coordinating Committees or WASH forums for each County region.

ACCELERATION IN NAKURU COUNTY, A BEST PRACTICE

WASH Alliance partners Amref Health Africa and Practical Action work collaboratively with the Nakuru County Government departments of Health, Environment and Water to build their capacity and strengthen their roles in responding to the citizens sanitation and waste management needs in the urban areas in this county. The project team of both organizations facilitate and coordinate activities through existing government structures to take up the implementation of the activities through e.g. training in UCLTS, Faecal Sludge Management (FSM), training local artisans in key skills and knowledge on various sanitation technologies, and provision of technical assistance in the total sanitation approaches. In Nakuru, sensitization of government officers, mentorship and coaching on the processes as well as supporting creation of enabling environment through policy development (Public Health and Sanitation Bill 2015) go a long way in supporting acceleration.

Acceleration mechanism: trained Public Health Officers

Nakuru County has since adopted UCLTS as the main approach to scale up the sanitation coverage across the urban centres in the county. Acceleration has been seen where the county government health staff have taken up this process and scaled up from project site of three settlements in Nakuru West Sub-county to entire Nakuru town comprised of Nakuru West and East Sub-counties with a total of more than 150 villages. The project team trained public health officers as facilitators for UCLTS, which was incorporated this in their day-to-day activities (part of their performance contract targets), and they went ahead to implement the approach even beyond the project implementation sites. Even more, as the project team used the existing government and community structures, fewer funds were used to reach a wider population.

Acceleration mechanism: sensitized residents

UCLTS also leads to acceleration of access to WASH since the sensitized residents (being more aware of their rights to better sanitation) start demanding improved sanitation facilities from their landlords. The landlords can take loans from financial institutions so that they construct improved toilets. Although the landlords were initially reluctant to secure loans from financial institutions, the landlord triggering forums facilitated by the project team and County Department of Health helped them understand the need to provide safe and improved sanitation facilities. Training landlords on WASH-micro-financing helped to make them choose loans that will go a long way in provision of improved sanitation facilities.

Facilitating Solid Waste Management

Nakuru town is the fourth largest urban center in Kenya with a total area of about 290 Km² and has an estimated population of 500,000 people. Before 2007, Solid Waste Management (SWM) was centralized and free of user fees with the responsibility being vested at Environment department of the defunct Municipal Council of Nakuru. By the end of 2006 approximately 20% of the area was being reached by the local authority free waste services. The local authority found it difficult to provide waste services due to limited resources (human, capital and equipment) leading to limited and irregular waste collection. As a consequence, the urban environment became unhealthy and unsafe. In addition, there was a low participation of Nakuru residents in waste management, especially in material recovery, and the existing policies did not recognize role of private sector in solid waste management.

Now, the WASH Alliance supports the Nakuru County Government to apply the Decentralized Solid Waste Management model to effectively and sustainably manage solid waste in Nakuru East and West Sub-Counties. The project team has been:

- Working with the County Government to support an enabling environment for community and private waste enterprises (SWEs) to provide paid waste collection and material recovery business services
- Supporting financing of SWEs from local banks
- Equipping waste enterprises with key business skills and knowledge to do their work better
- Working on institutional capacity building of all waste actors in the area through the formation of the Nakuru Solid Waste Management Association (NASWAMA).
- Supporting the Nakuru County Government through the department of Environment, Natural Resources and Energy (ENRE) to regulate and coordinate the DSWM processes in the County.

DSWM in action

The DSWM model is highly participatory with Nakuru citizens being involved as well as development partners. The town was initially demarcated into 26 waste collection zones, but has been reviewed downwards to 14 by merging small waste collection zones to improve management and cost efficiency. Prequalification for interested community and private SWEs for service delivery is done through tendering bids – a process coordinated by Nakuru County Government. Once viable SWEs have been selected and licensed. Accordingly, the Environment Department allocated specific collection zones and introduced them to the residents for provision of waste collection services.

The service users pay for the services directly to their respective SWEs. These are currently regulated at Ksh. 100 and 250 per month per household. Institutions and business premises fees are of course higher. The ENRE department regulates the sector and all licensed SWEs report back to the department. Once collected, all solid waste is transported for safe disposal at designated refuse site. Waste disposal fees are also regulated by the ENRE department.

Acceleration mechanism: there is business in sanitation

As the waste generation rate in Nakuru was 250 tons per day, applying a business approach to sanitation has managed to accelerate SWM services. As a result, the waste service coverage improved from 20% by the end of 2006 to a current level of 95%. According to ENRE department estimates from 2015, waste collection services stand at about 68% from refuse site sample records and the material recovery rate in three waste streams (paper, plastics and biodegradables) is estimated at about 20%. In addition, we can see an improving revenue inflow to the County Government through permits and waste disposal fees. Finally, over 2000 livelihoods depend on the SWM sector via direct employment.

Acceleration mechanism: governments see the benefits of WASH

Based on this success, the Nakuru County Government has passed a resolution to accelerate the DSWM approach to cover all major urban centers in the Country. Nakuru County is located within one of the most populated regions in Kenya with a total of 1,603,325 people and 47% of them living in urban settings, providing many opportunities to accelerate access to sanitation and waste management through UCLTS and DSWM.

Sustainable financing

Efforts has been made by the project team to provide sustainable financing for sanitation and waste management investments both in Kajiado and Nakuru Counties. Approximately Ksh. 20 Mln (200,000 euro) worth of WASH and waste management bank loans have been advanced to local people for investments both in Kajiado and Nakuru through Sidian Bank. However, the commercial bank approach has not been able to reach an acceleration level due to some inherent challenges. Sanitation marketing at community level through Business mentors has managed has attracted many people who interested in access bank loans but few end up qualifying.

APPLYING FINANCING CONCEPTS TO UCLTS

A. Introduction

Please read the chapter about 'financing acceleration'. This provides the key concepts. In this chapter we will apply the concepts to UCLTS in Nakuru.

Understanding finance is not difficult at all: it is all about understanding the chain and 'follow the money' through the chain. Each activity and element in the chain requires financing. And mostly figuring out the financing of each of the elements (activities) of the chain is common sense mainly. For example, in the sanitation chain elements are (a) financing toilets, (b) financing collection, (c) financing disposal and (d) financing re-use. The challenge is to make the whole chain financially sustainable. That is: the balance of costs and income is positive. This can be calculated per elements or sometimes you it is possible to combine elements. (E.g. think about public toilets: that is a combination of toilet and collection).

In this chapter, we take the financial perspective. Indeed, there a many difficult terms used by people working in finance, but these are all different names for **constructions to provide funds and get them back**. All these constructions have the same basics: the (1) financier provides funds and (2) the receiver has to repay. From there you can make it as complex as you want and give it any name, e.g. bond, senior bond, junior bond, equity, subordinated loan, orange, bullet loan, etc, etc. Whatever, it is all about (1) providing money and (2) and conditions for getting it back. No more, no less.

Money can make things happen and can make service provision sustainable. UCLTS in Nakuru is a good example. Let's follow the money.

B. Steps:

1. Draw the chain and indicate money flows. Simply do that by for each step asking the question: WHO (payer) is paying to WHOM (receiver) for WHAT service? This is called a transaction. This exercise will give you an overview of the transaction in the chain.
2. Now for each transaction, specify the 'WHO': the person/institution paying.
 - a. People pay (tariffs)
 - b. National or local government (taxes)
 - c. Development partners (transfers)
3. If the payer has savings, then this step is not needed. But if the payment involves a significant amount, the payer may not have the funds immediately available. Examples:
 - a. People will be able to pay for a bucket of water at the standpipe, but (unless they have savings) they will not be able to immediately pay USD 200 for a house water connection.
 - b. Governments do not have savings. Therefore governments **always** budget their expenses. A budget gives them a good overview of the funding needed for e.g. investments in piped water system. Therefore, it is important to note that governments will never pay for infrastructure unless it in their **budget**.

For both example A and B the aspect of 'financing' becomes important. Financiers will lend money for the investment and will expect repayment over a certain period of time. The financier wants to ensure that the lender can repay the loan. Usually people will repay from their earnings, whereas governments will repay from taxes collected.

B. Steps:

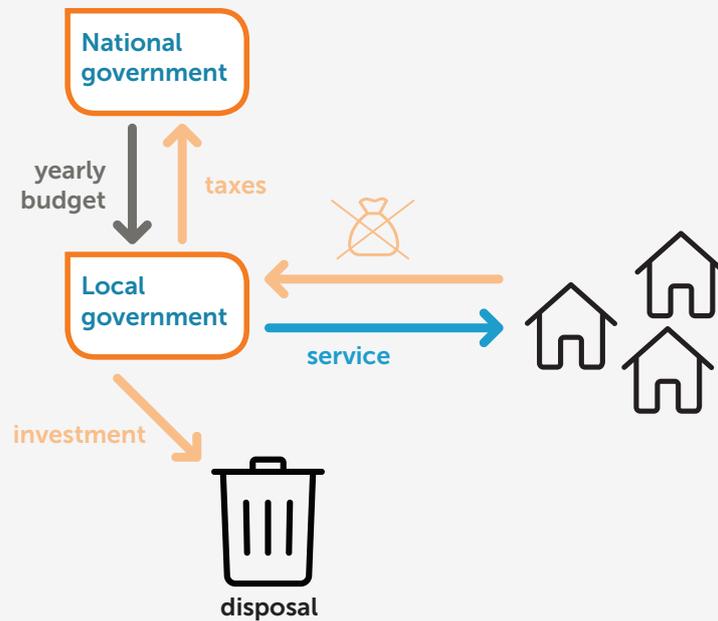
WHO / Payer	Source of payment	Funding	Repayment
Household	Savings	Household itself	
	Loan	Financier: MFI, bank, savings group, ...	From income
	None (it is a gift)	Paid by donor or government	Not needed
Business	Savings	Savings from the business owner	-
	Loan	Financier: MFI, bank, savings group, etc	From earnings / income
	None (it is a gift)	Paid by donor, government	Not needed
Government	Loan	Financier: government bonds, loan from local or international banks, loan from the World Bank or international institution, etc	Repaid from income from taxes.
	Gift (it is a gift)	Paid by donor	Not needed

Note: Gift' is mentioned in this table, because it is a source of payment. But warning (!), gifts do not contribute to financial sustainability! Gifts make organizations and people dependent of the choices of the donor. To become financially independent, focus on other sources of payment.

C. UCLTS – follow the money

Step 1: Understand the chain and 'follow the money'

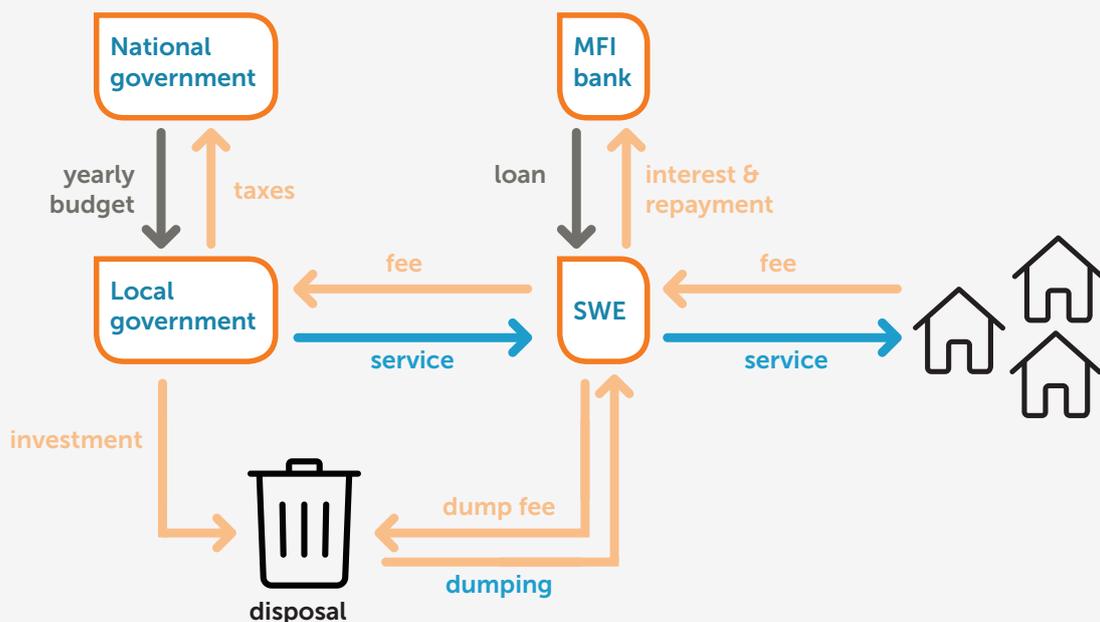
BEFORE: the old (non-functioning) waste collection system in Nakuru:



This situation was non-functioning. The local government (municipality) had to pay all expenses for waste collection and for a disposal site from the yearly budget they receive from the national government. This simple system could have worked if the fee for waste collection would have been incorporated in taxes paid by the household (as is the methodology in many European countries). But tax-collection does not work well in Nakuru.

Note: it is possible that e.g. the disposal site is paid for by a donor (transfers). But as you can see in the scheme, this is unsustainable as there are no funds coming in to pay for maintenance / operation of the disposal site.

NOW: the current (functioning) situation in Nakuru:



Note the differences in number of 'financial transactions' between 'before' and 'now'. In the old situation hardly money was flowing and the system did not include financial incentives or income.

Step 2 and 3 for the current situation

Transaction	WHO Service provider	WHO Payer	Payer's source of payment	Funding	Repayment
1	Waste is collected by the Solid Waste Enterprise (SWE)	Household pays a monthly fee.	Own funds of households (e.g. savings)	-	-
2	Disposal site offers disposal services to the SWE.	SWE has to pay a dump fee.	Own funds of the SWE (e.g. from savings or from daily income)	-	-
3	A dealer sells a truck to the SWE	SWE purchases equipment, e.g. a truck for expansion	The SWE pays for the truck with a loan from a local bank	MFI / bank	Income from services
4	The local government controls waste collection through a license system. They provide a license to SWEs	The SWE has to pay a yearly fee for this license.	SWE own funds (unless the license is very expensive, then a loan may be needed)		
5	A specialized construction company builds the disposal site on request of the local government	The local government has to pay the construction company.	The local government probably does not have such a large amounts and requests a loan from the central government.	Loan (probably) from the national government via a specialized institute, e.g. a Water Services Trust Fund.	Income from dump fees and taxes.

The list can be made more complex if you want to dig deeper. E.g. where does the national government get their money from? (Answer: taxes, government bonds, loans from international banks, etc). Or where do MFIs or banks get their money from? (Answer: savings, loans from other banks, etc).

We can conclude that in the current situation (compared to 'before' situation): money is flowing and income can be earned. And when there is income, it is possible to lend money for investments (e.g. expansion of the business or investment in facilities to extract valuable waste and thus earn more money).

D. Conclusion:

The message is that to make systems sustainable and to allow for acceleration (expansion) a sound financial set-up and financial incentives are important. A good start is by asking the questions above and simply 'follow the money'. Insight in these money flows will help to understand:

- Who is paying for what?
- Is there sufficient funding available? If not, what can be done? (Adjust the project, lower prices, organize the funding, etc).

Last but not least: although it is nice to get free donor funding, on the long term this is never sustainable. So always try to develop systems that can work without free funding. It is certainly a possibility to use the free funds (donors) to start up the system, but ensure that over the longer term (3-4 years) the system in itself is financially solid and becomes independent from gifts.