

SOLID WASTE MANAGEMENT

LOGO South Thematic Programme

The Hague, May 2006

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1. INTRODUCTION: LOGO SOUTH THEMATIC PROGRAMMES

Since 2005 LOGO South, the Good Local Government programme for developing countries is in full swing. The aim of the LOGO South programme is to strengthen good local government as a condition for poverty reduction. The programme focuses on reinforcing the capacity of local government by investing in people; thus capacity development is development of human capacity. The programme is mainly based on the assumption of combining practical knowledge in a partnership of local governments and organisations and institutions working at the local level. The programme focuses on those domains of local government with shared experiences so that partnerships can function optimally.

On behalf of the Association of Netherlands Municipalities (VNG), VNG International, the international co-operation agency of the VNG, runs LOGO South. LOGO South is funded by the Dutch ministry of Foreign Affairs and is built on the experiences of its predecessor, the Municipal International Cooperation in Developing Countries programme (GSO). This programme was implemented by VNG International from 1993 until 2003.

Making the programme objectives operational takes place by developing country programmes and thematic programmes. These programmes are based on a situation analysis (national and of actors) and have their own objectives, set the framework for activities and determine specific results.

Development of the LOGO South Thematic Programme Solid Waste Management

Drafting a LOGO South Thematic Programme is a participatory process involving different parties in the developing countries and their counterparts in the Netherlands. Thematic programmes can only be successfully implemented when all involved parties are committed –

including the political leadership. Thematic programmes should be build on the needs of the involved parties and the local institutions in the developing countries. The participatory process can take place in workshops, meetings and research. During this process strategic decisions, objectives and implementation should be discussed.

Drafting the LOGO South Thematic Programme Solid Waste Management is such a participatory process in which Dutch actors and stakeholders from Nicaragua, Indonesia, South Africa and Sri Lanka have been involved. The following activities contributed to the thematic programme:

- Literature analysis by VNG International;
- Dialogue with the involved Dutch organisations involved in December 2005;
- A SWOT analysis (Strengths, Weaknesses, Opportunities and Threats) of six GSO projects related to the theme in 2004.
- Exchange Activity on Solid Waste Management in the Netherlands in April 2006 with representatives from Nicaragua, Indonesia, South Africa and Sri Lanka.
- Working visits from VNG International to Solid Waste Management projects in Sri Lanka (in 2005) and Ghana (in 2004 and 2005);

At the Exchange Activity a draft of the LOGO South Thematic Programme Solid Waste Management was discussed among all parties. After this activity a redraft was presented to all parties for comments which resulted in this final version of the thematic programme submitted to the LOGO South Advisory Board in May 2006.

In two countries – Sri Lanka and Nicaragua – LOGO South Country programmes have been developed which also include waste management issues. These country programmes go deeper into a country analysis (stakeholders, legislation, national policies, etc.) than is possible for a thematic programme open to a number of countries. Nevertheless, links will be built between these two country programmes

on the issue waste management and the LOGO South Thematic Programme Solid Waste Management wherever that is possible.

Trust and Understanding

In the framework of existing international relations between local governments, building on trust and mutual understanding, Solid Waste Management organisations in developing countries and the Netherlands will exchange experiences and develop capacities. This is done by the colleague to colleague approach. The method is practice-based in which experts working in the same job or in a comparable position exchange views and experiences. The problems and analysis can be shared easily and is conducive for building on existing local capacity. Experience shows that careful consideration should be given to concentrate on practical problem solving rather than pretending to deal with complex enabling environment issues since these more often than not require a large scale intervention.

What is gained in bilateral projects by this practice-based method should be transferred to a more abstract level in the thematic programme. The thematic programme will look into materialisation of the different project results in such a way that others can profit from it.

About this document

The LOGO South Thematic Programme Solid Waste Management consists of two parts. Part one contains the analysis of waste management in the international setting which looks specifically at the actors which shape waste management policies as well as the experiences with the implementation of projects at the local level. Part two contains the programme design including the focus areas that have been set for the Thematic programme, the overall programme objectives, activities and expected results as well as the logframe.

The situation analysis in this part 1 studies the following issues:

1. What is Solid Waste Management (5 components: financial, material, logistics, public awareness, and politics);

2. New trends in Solid Waste Management (technique, organisation, revenue);
3. Experiences from previous projects within GSO.

For issue one and two use is made of literature from international donors and expert organisations in the field of Solid Waste Management. Part three takes into consideration the experiences of international co-operation in developing countries and The Netherlands gained under the GSO programme. Please note that it is explicitly not our intention to elaborate a comprehensive guide or booklet on Solid Waste Management. The analysis paints an overall picture of the theme and added with our own experiences within the municipal bilateral projects, we have been able to formulate what LOGO South can and will be doing on this theme in the next few years.

The objectives as set out in part 2 follow directly from the problem analysis. Pitfall of in-depth analysis can be over-ambitious objectives and sky high expectations: analysis should lead to realistic and achievable objectives and implementation should be closely linked to the existing level of capacity and the local ability to absorb new capacities. In other words the pace of implementation should not be faster than the beneficiary can cope with. The objectives as formulated take this into account.

PART 1- SITUATION ANALYSIS

2. ANALYSIS OF THE THEME: SOLID WASTE MANAGEMENT

2.1 The five components of Solid Waste Management

Solid waste¹ and the management of solid waste have proven to be challenging for countries around the world. As the world population grows and the amount of waste produced grows the management of the waste produced continues to be a problem. In the general perception waste management is not a difficult process. Trucks pick up waste and dump it in a place far away from human settlements. In reality the process is complex and requires precise interaction of the many actors involved. In this brief introduction to the management of solid waste the various components of Solid Waste Management² which need to be in place and function in harmony will be discussed. As identified by Srinvas³, in this analysis the following five components of Solid Waste Management are identified:

1. Social
2. Economic
3. Political
4. Institutional
5. Financial

¹ The definition for solid waste used in this text is: "Any refuse or waste material, including semi-solid sludges, produced from domestic, commercial, or industrial premises or processes including mining and agricultural operation and water treatment plants." Source: Skitt (1992) p. 152

² The definition for solid waste management used in this text is: "The purposeful, systematic control of generation, storage, collection, transport, separation, processing, recycling, recovery, and disposal of solid wastes." Source: Skitt (1992): p. 152.

³ Srinvas (2006) <http://www.gdrc.org/uem/waste/waste.html>

The complex nature of Solid Waste Management requires a broad approach to achieve improvements. All aspects have to be working together in harmony to ensure efficient and sustainable Solid Waste Management. For example if the *technological* (trucks), *administrative* (well structured municipal waste department) components are in place but the municipal *politicians* are not willing to provide sustainable funding for Solid Waste Management; it will not be possible to sustain the effort made. More than just an *organisational* and *logistical* effort effective Solid Waste Management involves creating a *culture* which enables good Solid Waste Management.

As Hari Srinivas notes: "There is a whole *culture* of waste management that needs to be put in place - from the micro-level of household and neighbourhood to the macro levels of city, state and nation."⁴

In the following part the five components briefly introduced above will be discussed in more detail.

The Social component of Solid Waste Management

The social component of Solid Waste Management focuses on the interaction between the citizens and the institutional arrangements for managing solid waste. Areas of attention which are important in this respect are citizens' awareness of Solid Waste Management, orientation of the municipal service to the real service needs of the population and to mobilise and support community groups to take a role in the Solid Waste Management in their area.

To achieve results in this area it is important that efforts to involve the community and to communicate strategies of waste management with the citizens are coordinated with real improvements of waste collection so as not to lose momentum created by the initiatives.

⁴ H. Srinivas (2006) <http://www.gdrc.org/uem/waste/waste.html>

During former GSO projects there were many initiatives focussing on awareness raising. Several of these projects were successful in reducing waste or informing the public to change their waste disposal habits.⁵

The principle social objectives are:⁶

1. to orient municipal waste management towards the real service needs and demands of the population,
2. to encourage patterns of waste handling and disposal which contribute to the effectiveness and efficiency of municipal waste services,
3. to raise the populations awareness of solid waste problems and priorities and promote an effective economic demand (willingness to pay) for waste collection and disposal service,
4. to mobilise and support the contribution of communities and user groups to the self-management of local waste collection and disposal services; to foster their participation in the planning, implementation and operation of municipal waste management systems, and
5. to protect the health of formal and informal waste workers, improve their socio-economic security and alleviate their social marginalisation.

The Economic component of Solid Waste Management

The economic aspect of Solid Waste Management concerns the overall economic effectiveness of waste management and the productivity and development of the urban economy. Other issues which are to be dealt with in the economic component are the involvement of the private sector in waste management.

The involvement of the private sector in waste management can be a solution for municipalities who have difficulties finding the capital and

⁵ One result of a project in Gedaref, Sudan was the reduction of the use of plastic bags in the city. In Elmina, Ghana citizens learned to dispose their waste in bins, rather than throwing it down the hill.

⁶ Schubeler (1996) p. 35

capacity to improve services in their own organisation. The role of the local government then changes from service delivery to regulation of the provided service. Outsourcing (part) of the waste management of a municipality can be hazardous if the municipality is not ready for the regulatory role, or national legislation does not give enough room for supervision.

In Kumasi, Ghana small enterprises were encouraged to start waste collection in the wealthier neighbourhoods. The result of the project in the pilot area was a waste collection percentage of 60%, a fee collection of 90%, a cleaner living environment and employment for 25 people. This approach was a success and is being extended to other neighbourhoods in the city.⁷

The main economic objectives are:⁸

1. to promote the productivity and development of the urban economy through the efficient provision of waste collection and disposal services for which users are willing and able to pay,
2. to ensure the environmentally sound collection, re-cycling and disposal of all generated waste, including hazardous industrial and commercial wastes,
3. to ensure the overall economic effectiveness of waste management services through the adequate evaluation of economic costs and benefits,
4. to promote waste minimisation, materials conservation, waste recovery and reuse and the long-term efficiency of the economy by practical application of the .polluter (and user) pays principle, and
5. to generate jobs and earns in the waste management activities.

⁷ Almere (2004) p. 3

⁸ Schubeler (1996) p.45

The Political component of Solid Waste Management

The politics of Solid Waste Management are complex but vital to ensuring sustainable improvement. A filthy living environment is a concern for any politician running for an election, however taking the necessary steps to ensure a clean living environment takes time and effort.

The role of the politicians is to decide what are the goals and priorities for waste management in a specific area and what means are to be provided to achieve these goals. Means for Solid Waste Management often come from a solid waste tax to finance the waste department. In many developing nations the financial sustainability of waste management is not guaranteed due to low funding. For politicians it is always a sensitive issue to raise taxes, especially in countries where large parts of the population live in poverty.

Besides financial sustainability politicians at all levels have to ensure a useful legal framework in which the conditions are created for the municipal organisation to implement a well thought out waste management.

In summary, the main political objectives are:⁹

1. to determine society's goals and priorities for waste management and mobilise public support for these goals,
2. to achieve a clear definition of jurisdictional arrangements for waste management tasks among the concerned government bodies and private sector actors, as well as the roles, rights and responsibilities of service users, and
3. to elaborate an appropriate legal and regulatory framework and body of instruments which enable responsible authorities to achieve and sustain the defined goals.

⁹ Schubeler (1996) p. 29

The Institutional component of Solid Waste Management

Many of the GSO projects on waste management involved the strengthening of the municipal waste department. The focus was usually on trainings for designing waste management plans and the implementation of these plans. The organisation of the municipal waste department, including staffing, place in the municipal organisation and capacity has been the subject of much attention in these projects.

The main objectives at the institutional level are:¹⁰

1. to devolve responsibility for Municipal Solid Waste Management to the local government level and ensure a corresponding decentralisation of power and authority,
2. to establish effective institutional arrangements for waste management at the municipal and, in the case of large cities, at the metropolitan level,
3. to introduce appropriate methods and procedures that enable efficient waste management services which meet the needs of the entire population,
4. to build the capacities of municipal institutions and their staff so that they are able to provide the demanded waste management services,
5. to introduce competition and increased efficiency into Solid Waste Management through the involvement of private sector (formal and informal) enterprises, and
6. to lower costs and improve the effectiveness of waste management through the participation of communities and service users in local waste management.

The Financial Component of Solid Waste Management

The financial component of Solid Waste Management is closely linked to the other components, especially the political will to link the cost of Solid Waste Management to the payment by the consumers. To be able to

¹⁰ Schubeler (1996) p. 34

make a realistic price per household/ enterprise it is necessary to have a good insight into the costs of Solid Waste Management in the municipality.

In the World Bank publication on the municipal management of solid waste some principles on financial sustainability are further explained. Several issues are raised in this regard.

- The importance of linking the cost of Solid Waste Management to the price paid by the consumers. This can be further refined by linking the price to production of waste, for example for large producers of waste. To ensure payment of the waste taxes the fee can be included on other bills which are already successfully collected by the municipality e.g. electricity, property tax, water bills.
- The importance of doing more with less. As in many countries the possibilities for increasing revenue of the waste department are limited cost reduction can be an important strategy. This can be done by involving Community Based Organizations (CBO) in waste collection, improving maintenance of materials and by improving efficiency in the municipal organization.

In Gedaref, Sudan the municipality managed to improve cost recovery of almost all operational costs. This has been achieved by making the waste department an independent entity with a separated bank account and financing through waste taxes.¹¹

The principal financial objectives are:¹²

1. to establish practical systems of budgeting and cost accounting for Municipal Solid Waste Management which yield transparency with regard to the real costs of waste management and provide a basis for planning and improving operational efficiency,

¹¹ Eindhoven (2006) p. 6

¹² Schubeler (1996) p. 41

2. to mobilise required resources for investment in waste management facilities and equipment,
3. to achieve cost-oriented revenues for waste management operations which are based, as far as possible, on user charges, and to ensure that the collected revenues are applied to the intended purpose of waste management, and
4. to reduce the costs and improve the efficiency of waste management operations.

2.2 New trends in Solid Waste Management.

In the mid 1990's a collaborative working group of the World Bank started work on describing and addressing the problems of the Solid Waste Management plans. These plans were often made by external consultants based on their experiences in Western European or North American cities and local needs were often not well integrated in the plans. Therefore there were issues of ownership and understanding of the management plans which led to a problematic implementation of the plans.

The working group described a different approach to waste management plans in which three elements are incorporated to ensure ownership, facilitate implementation and ensure sustainability. The three elements are:

1. Stakeholders
2. Waste system elements
3. Aspects.

Figure X.X shows the interrelation between these three aspects and describes how they contribute to sustainability.

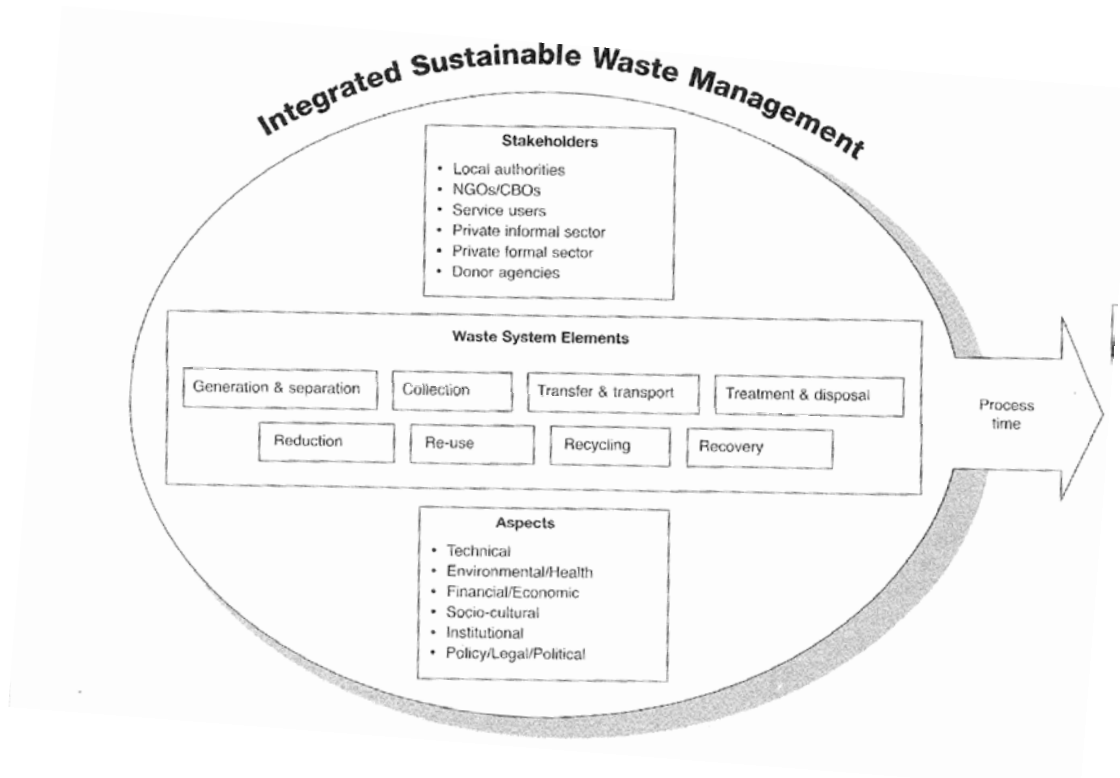


Figure X.X.

The Dutch organisation Waste has worked out a manual in which the Integrated Solid Waste Management method is described. In the manual the steps which need to be taken for Integrated Solid Waste Management are explained.¹³

The model is interesting because of the involvement of stakeholders in the drafting of a waste management plan. By including these actors ownership and commitment of the community may be increased

¹³ For more information see: Anschutz et al (2004), Putting Integrated Sustainable Waste Management into Practice. Waste, Gouda, the Netherlands.

therefore increasing the chances for successful implementation of the final plan.

Solid Waste Management Model

An important aspect of International Solid Waste Management is the Solid Waste Management model. A Solid Waste Management model is built from basic Solid Waste Management information. This basic information includes:

- The number of households/ Small and Medium Enterprises connected to a collecting system of various fractions;
- The daily amounts per fraction collected from households/ Small and Medium Enterprises (in volume and/or in weight) (for example reusable materials like organic waste, glass, paper and some plastics versus non reusable materials; hazardous versus non hazardous materials)
- The annual costs needed for the various collecting systems; for personnel, collecting equipments (incl. maintenance and replacement costs), consumables and public information
- The annual costs to transport the waste to a dumpsite or treatment plant of the various fractions.
- The annual cost of proper dumpsite management and/or treatment of the various fractions of waste.

Collection systems should be tuned to the cultural and financial possibilities of a specific society with specific waste.¹⁴ When choices are made in for instance 1) the way in which waste is handed to the collection service (in bins or lose on the street), 2) the separation in waste fraction (hazardous/non-hazardous, reusable/non-reusable), and 3) the employment of NGO's (commercially/charitable), the Solid Waste Management model should give a clear picture of the financial and environmental consequences of these choices. It should be made clear that a choice is made with proper financial and environmental

¹⁴ UNEP-IETC (1996)

background or else these consequences will be added to the Solid Waste Management deficit.

When neighbouring municipalities introduce the same Solid Waste Management model it is possible to use the information for regional and/or provincial level purposes. This is necessary for creating common policies, shared operations and finally an Integrated Sustainable Waste Management¹⁵.

2.3 Analysis of previous GSO projects with a focus on Solid Waste Management

In the framework of the Netherlands Inter-municipal Development Programme (GSO) run by VNG International many projects have been implemented over the last years by Dutch municipalities and their counterparts on the theme of waste management. These projects show various similarities and common approaches, such as activities aimed at the elaboration of waste management plans and the establishment of municipal waste management departments etc.. In Municipal Management Training Programmes (MMTPs) within GSO that have been organised by VNG International and participating municipalities, several of these common approaches and features have been addressed.

The GSO programme formally ended in December 2003, but rolled out until end of 2006 for projects being implemented since 2003 already. The GSO programme got a follow up in the LOGO South programme. As said, the thematic programme Waste within LOGO South will set the framework for future waste management project and activities, both at the bilateral level as well as the common level of the programme.

In preparation of this programme, a brief SWOT analysis (Strengths, Weaknesses, Opportunities and Threats) was made of several municipal

¹⁵ Klundert et. Al (2001)

waste management projects executed in the frame of GSO over the last years. The selected projects took place in different parts of the world, as to include the perspectives of the different regions. The selected municipalities were:

1. Latin America: Amstelveen / Villa el Salvador (Peru)
2. Asia: Haarlemmermeer / Cebu (the Philippines)
3. Africa (West): Almere / Kumasi (Ghana)
4. Africa (Sub Sahara): Nieuwegein / Rundu (Namibia)
5. Africa (Central): Deurne / Batouri (Cameroon)
6. Africa (Central): Eindhoven / Gedaref (Sudan)

The individual SWOTs of the municipal projects and general recommendations can be found in the document SWOT Waste GSO which can be obtained through VNG International.

In summary, the following strengths, weaknesses, opportunities and threats were identified by the implementers of the GSO projects and VNG International:

Strengths

* Attention for awareness raising and health education: the projects not only concentrated on the more technical or organisational aspects of waste management but also focussed on more understanding and knowledge why waste and its disposal deserves everyone's attention.

* Creation of green areas: the projects allowed for the creation of green areas which was valued positively. The effect this had on the inhabitants was very positive, since it created the overall feeling that the cities were more attractive, more pleasant to live in. It also had a direct effect on the production of waste: the green areas were an incentive to keep the cities, and especially the green places, clean.

* Training manuals: as the main focus of all GSO projects refers to the exchange of knowledge and experiences between two partner municipalities by offering training to civil servants and politicians, this

always bears the risk that when these people leave the municipality, they take their newly acquired knowledge with them. One of the possibilities to prevent this was to lay down experiences and practices in documents or training manuals.

* Long term waste management strategy and waste management plans: several partners focussed in their projects on the elaboration of waste management plans or including waste management as one of the priorities in the city's long term strategic vision, which allowed for a more integrated and sustainable approach of the waste management issues.

* Pilot areas and purchase of equipment: The majority of the projects selected for their concrete implementation one or more pilot areas: specific neighbourhoods in the city where the waste management services were developed first. This had the advantage that the scale and ambitions of the projects were not too high, activities were more focussed and budgets not too dispersed. Many projects also choose to acquire equipment that was not too high-profile, and fitted the local situation. Specific attention was paid to issues like budget, local possibilities for maintenance, weather conditions etc..

Weaknesses

* Fee collection system: almost all projects made reference in their project document to the need to introduce a local tax collection system. It is a fact that municipalities cannot offer their services for free and that it is a prerequisite for the long term sustainability for the waste management service to have a local fee collection system in place. Nevertheless, it often proved difficult to get such a system off the ground and a limited number of municipalities succeed in this.

* Waste management department as part of the municipal organisation: in many cases the waste management project was the first start to organise and structure the waste management services of the

municipality. Often this resulted in the creation of a waste management department or bureau that coordinated the project activities and waste management services of the municipality. Sometimes this department or bureau did not formally form part of the municipal organization, operating quite isolated from the rest of the municipality. This obviously has risks for the priority given to waste management and support that can be expected from other layers of the municipal organisation.

* Public - Private cooperation: some municipalities choose to coordinate and organize the collection and disposal of waste all by themselves, without including private parties. Other municipalities made use of the services private parties could offer. In all cases however, the relationship between the private sector and municipality could be further expanded, and responsibilities and tasks could be defined more clearly.

Opportunities

* Creating feedback mechanisms: in many projects emphasis has been laid in first instance on setting up a waste collection and disposal service, accompanied with educational and awareness raising activities. Overall, little attention has been paid to creating feedback mechanisms: how is the population invited to provide feedback to the municipality on the waste service? Getting feedback on the organisation of collection and disposal is necessary to make improvements to the service and to create sufficient trust among inhabitants that their opinion and ideas are taken into account.

* Household and entrepreneurial waste: almost all projects focussed on the collection and disposal of household waste. Little attention has been paid to waste generated by local enterprises. Addressing also the local enterprises in a more structural way, and collecting also fees from them as they produce in most cases big amounts of waste, could certainly be something to be elaborated upon in future programmes.

* Fee collection system and local legislature: as also indicated under weaknesses, some municipalities already successfully introduced (or made a start with) a fee based system linked to the waste management services of the municipality. A related issue is the introduction of legislative procedures for waste management by creating local by-laws. This local legislature should define rules and procedures regarding the waste collection, disposal, the way the local population should offer their waste to the municipality, the way fees are collected and what measures can be taken when procedures are not obeyed.

Threats

* Changing political priorities: one of the threats that was noticed by many partners is that of changing priorities and political representatives. Local elections resulting in changes at the political level might also result in new areas of attention and shifting priorities. Although this can be prevented to some extent by the elaboration and approval of local waste management plans, it is certainly no guarantee for future sustainability.

* Weather conditions: many of the Southern municipalities are exposed to rather unstable and harsh weather conditions. Extreme dry or rainy weather has a direct influence on the way the municipality can handle the collection and disposal of waste. Dry weather conditions will confront the municipality with other kind of problems than heavy rainfalls which might result in inaccessibility of roads and land fill. Ideally the municipality should anticipate to this and create back-up possibilities.

3. ANALYSIS OF THE ACTORS

In this part the key actors in the field of Solid Waste Management will be mentioned as well as the major donors active in Solid Waste Management. These actors are listed to provide an overview of already ongoing initiatives in the field. For a list of websites please see the bibliography. Municipal twinnings

3.1 Key programme partners and actors

Municipal twinnings

The following twinnings form the basis of the thematic programme Solid Waste Management:

<i>Dutch Municipality</i>	<i>Partner Municipality</i>
Apeldoorn	Banda Aceh, Indonesia
Assen	Naledi, South Africa
Eindhoven	Emfuleni, South Africa
Leiden	Buffalo City, South Africa
Tilburg	Emfuleni, South Africa
Rotterdam	Banda Aceh, Indonesia
Velsen	Galle, Sri Lanka
Nijmegen	Masaya, Nicaragua
Vlissingen	Ambon, Indonesia

Dutch Solid Waste Management organisations

In this section the Dutch organisations which are active in Solid Waste Management are mentioned. These are organisations with which VNG International intends to work together in the frame of the thematic programme.

NVRD

The NVRD is the Dutch Association for Refuse and Cleansing Management. The association consists of companies, municipalities and

organisations which work in the field of waste management and a clean living environment. The association consists of two divisions. The division 'Sector' serves the interests of companies in which the Regional and or Local Authority (R.A.) has a controlling interest. In the division 'Individuals', experts in the field of refuse and cleansing management meet.

VNG International already works together with the NVRD for the implementation of the LOGO South Sri Lanka country programme.

Waste

The organisation Waste advises in sustainable improvement of the urban environment and runs international projects to that end. The focus of activities is on low-income urban areas in order to develop, together with local residents, tools and means for their own development. Enabling citizens to improve their living conditions, the environment and create employment as a sound economic base for their future, is key in the assistance WASTE provides. Another important focal point for WASTE is the role of small-scale entrepreneurs and their (potential) contribution to the provision of urban services and their integration in the municipal services e.g. in resource recovery and the removal of urban waste.

Senter Novem

SenterNovem is an agency of the Dutch Ministry of Economic Affairs that implements government policy in the areas of innovation, environment, energy and sustainable development to a high standard, fostering synergy between the various fields. SenterNovem supports and encourages businesses, institutions and governments in realising social objectives in these areas, in both an national and international context. SenterNovem offers a wide spectrum of products and services varying from developing and disseminating knowledge, to monitoring and developing policy instruments and to managing subsidy schemes. They act as a full partner, as programme manager, participants or programme advisor.

International Knowledge institutes

ISWA

The International Solid Waste Association is an international, independent and non-profit making association, working in the public interest to promote and develop sustainable waste management worldwide. ISWA is open to individuals and organisations from the scientific community, public institutions, public and private companies, consultants, and manufacturers, from all over the world working in the field of and interested in waste management.

ISWA has around 1.100 members from more than 70 countries around the world. ISWA is the only worldwide association promoting sustainable and professional waste management. Through the 10 ISWA working groups, ISWA provides technical papers and opinions regarding waste practices

3.2 Donors and projects

World Bank

The World Bank Group currently has about 120 active projects with Solid Waste Management components. There are about 85 projects under supervision with \$3.5 Billion in loan/grant commitments, of which about 85% is designated for 'urban environment' activities. Solid Waste Management is the main component in more than half of these projects. At least 20 projects with large solid waste components are now under preparation within the \$4.5 Billion (minimum) Urban Environment pipeline. An estimated 20 additional projects are in the pipeline.

United Nations

Several UN agencies have been focusing on management of solid waste¹⁶. Concern for Municipal Solid Waste Management has been a key

¹⁶ UN (1999) chapter 21

element of UNEP's human settlements programme. It has organized many training courses on municipal waste management, through its Technology and Environment Branch (TEAB), before the onset of UNCED or Agenda 21. Under the auspices of the Secretariat for the Basel Convention on hazardous waste, UNEP has also undertaken some activities pertinent to municipal waste management.

The joint World Bank/UNCHS (Habitat)/UNDP Urban Management Programme (UMP) is currently preparing publications on private- public partnerships on Solid Waste Management and regional activities have addressed technical cooperation between developing countries for municipal waste managers.

3.3 Conclusion

In the problem analysis attention has been given to the various aspects of Solid Waste Management using the conceptual framework developed by the World Bank and the Dutch organisation WASTE.

Comparing the experiences from the World Bank and the Integrated Solid Waste Management method with the experiences of the GSO programme and the experiences of municipal partners brought in during the Exchange Activity organised in April 2006 in The Netherlands, several elements can be identified as key for the success of Waste management projects. The more theoretical overviews of the World bank, the conceptual analysis of WASTE and the practical experiences of the GSO programme, all come up with more or less the same elements. This shows that these elements are really seen as vital for successful waste management activities.

In summary these three key areas are:

1. The inclusion of waste management practices in the long term vision of a city and a firm position of the waste department in the municipal organisation;
2. Financial sustainability of waste collection;
3. Awareness Raising and Health Education for waste issues.

The programme design in Part 2 will follow up on this key issues and translate them into focus areas and programme objectives.

PART 2- PROGRAMME DESIGN

4. FOCUS AREAS FOR SOLID WASTE MANAGEMENT ACTIVITIES

Based on the outcomes of the SWOT analysis of the GSO projects, literature review and the presentation of current experiences and proposals of participants during the Exchange Activity organised by VNG International in April 2006, a programme design for the Thematic programme Waste has been elaborated and agreed upon. This framework includes three focus areas that will constitute the framework for the thematic programme waste, objectives, expected outcomes and an activity plan.

The three focus areas are the backbone of the thematic waste programme and they are meant to steer the direction of bilateral and common activities. All activities organized with Waste LOGO South over the next years should at least address one of the focus areas as mentioned below as they are considered crucial by VNG International and partners for a successful implementation and sustainable result of waste management projects. The formulation of three specific focus areas does not mean that there are no other elements that can be taken into account when developing Solid Waste Management activities within LOGO South, such as contributions to the development of dumpsites. Naturally, the LOGO South programme will facilitate, within the boundaries of the programme, that projects can also contribute to other related Solid Waste Management issues. However, in order to bring the LOGO South Solid Waste Management activities on a higher level and facilitate a more effective exchange of experiences, each activity, either bilateral or on a collective level, will at least address one of the three focus areas as discussed below.

4.1 Focus area 1: Integration of Solid Waste Management in municipal policies

- Elaboration of long term waste management strategies and waste management plans
- Waste management departments are part of the municipal organization
- Stimulate active involvement of politicians in Solid Waste Management plans

Long term waste management strategy and waste management plans

In previous projects most partners focussed in their projects on the elaboration of waste management plans or including waste management as one of the priorities in the city's long term strategic vision. Having a waste management plan in place, describing the activities, organisation and budget of the municipality's waste management service, has obviously many advantages and in many cases showed results. If a municipality has a waste management plan it is usually easier to convince newly elected politicians, or employees, to keep waste management as one of the city's priority areas. At the same time the projects showed that waste management plans were not the solution in itself: it happened that waste management plans were not approved by the municipal council, or were approved but the content was very thin. Next to that it showed that Southern countries value less written documentation and procedures compared to Dutch counterparts.

Within future LOGO South activities and bilateral projects specific attention will be paid to integrating Solid Waste Management into the municipal organisation. This will be done by stimulating participating municipalities to elaborate waste management plans to be approved in turn by the Municipal councils. In case there are already waste management plans in place, yearly or two yearly evaluations of the plans will be promoted.

Waste management department being part of the municipal organisation

Past projects showed that in many cases the waste management project is the first start to organise and structure the waste management services of the municipality. Often this resulted in the creation of a waste management department or bureau that coordinates the project activities and waste management services of the municipality. Sometimes this department or bureau does not formally form part of the municipal organization. It occurred for instance that the waste management bureau functioned like a project office: coordinating the project activities and being the focal point of the project, but operating quite isolated from the municipal organization. This obviously has risks for the priority given to waste management and support that can be expected from other layers of the municipal organisation. In the follow up project more specific attention to this was paid and now the waste management department forms part of the municipal structure and has a more direct link to other municipal departments and the political level.

LOGO South will strive towards a steady and clear position of waste management departments within the municipal organizations. Next to the elaboration of waste management plans, containing the overall vision on this issue and the commitment of the municipality, this key element will focus more on the practical implications of the Solid Waste Management activities.

Active involvement of politicians in Solid Waste Management plans

In both the elaboration of waste management plans and the internal organisation of the waste management service within the municipality, the participation of politicians is key. LOGO South will strive for the active involvement of local politicians in the various activities of the programme.

4.2 Focus area 2: Financial sustainability

- Introduction of fee collection systems
- Introduction of local legislation defining rules and procedures for waste collection and disposal

Introduction of fee collection systems

It is a fact that municipalities cannot offer any of their services for free and that it is a prerequisite for the long term sustainability of any municipal service, including those on waste management, to collect fees and have some kind of a local fee system in place. Nevertheless, it often proves difficult to get such a system off the ground. Difficulties lie in first instance in hesitation of the local politicians or civil servants to introduce such a system, especially when it concerns the poorer areas of the city. Next to that, there are several practical, organizational problems such as: lack of information and land registry systems to know who lives where, how to collect the money, by whom etc..

In previous projects many partners were afraid that people were not willing to pay for the waste management services, but this certainly did not prove to be the main problem. As long as the service was actually delivered on time, and people were properly informed on what could be expected, and foremost, why they needed to make a contribution to it, the willingness to pay a fee was quite high.

In terms of developing a municipal service that will also in the long run be sustainable, self supporting and not dependant on external funds, Solid Waste Management projects need to pay attention to this issue. Especially in those municipalities where LOGO's predecessor GSO has been supporting the implementation of Solid Waste Management

projects in the past, we can now take the whole process a step further and should address this issue as well.

Introduction of local legislation defining rules and procedures for waste collection and disposal

For those municipalities that already successfully started with the introduction of a fee based system linked to the waste management services of the municipality, a related important issue is the introduction of legislative procedures for waste management by creating local by-laws. This local legislature should define rules and procedures regarding the waste collection, disposal, the way the local population should offer their waste to the municipality, the way fees are collected, what measures can be taken when procedures are not obeyed and how feedback systems from citizens to the municipal organisation are created.

When addressing the issue of financial sustainability all these related issues will need to be taken into account. LOGO South will therefore promote an integrated approach towards local fee collection for waste management services. Experiences in this respect will also be brought in from the LOGO South country programme Ghana which has as key focus the introduction of fee-based municipal services, amongst which waste management.

4.3 Focus area 3: Community education concerning waste and health issues

- Including awareness raising and health education activities in projects
- Creating feedback mechanisms for citizens and promote participation by offering incentives

Awareness raising and health education

In almost all previous GSO projects activities aimed at awareness raising amongst the local population were included. These awareness raising

campaigns and educational activities not only focussed on waste management as such (collection and disposal) but moreover on issues related to waste, such as diseases and hygiene. Campaigns and trainings pointed out the various risks of waste spread around the city, children playing on land fills and diseases created by abandoned waste and plastic.

In doing so, the projects not only concentrated on the more technical or organisational aspects of waste management but created at the same time more understanding and knowledge why waste and its disposal deserves everyone's attention.

Continuous attention for citizen participation and awareness raising remains crucial to any municipal project, and also in this case. Especially if an element of local fee collection for Solid Waste Management services will be promoted, the active involvement of the local population is key. This can be organised for instance by creating local environmental committees. Therefore, LOGO South will continue paying attention to and promoting the inclusion of an awareness raising component in activities at the bilateral and common level.

Create feedback mechanisms and promote participation by offering incentives

A related issue refers to creating feedback mechanisms: how is the population invited to provide feedback to the municipality on the waste service? Getting feedback on the organisation of collection and disposal is on the one hand necessary to make improvements to the service and on the other hand create sufficient trust among inhabitants that their opinion and ideas are taken into account.

LOGO South will facilitate room for this kind of activities under the Solid Waste Management thematic programme.

5. OBJECTIVES AND EXPECTED RESULTS

5.1 Objectives of the thematic programme Solid Waste Management

The programme defines objectives at the local level (to be realised by the execution of municipal bilateral projects in the Southern municipalities) and the global level (amongst the Southern and Dutch participants worldwide, to be realised by implementing activities on a global level).

Objective at the Local level:

To improve the organization and functioning of waste management services of the involved municipalities. Aspects which can be taken into account are:

- The elaboration and political approval of municipal Solid Waste Management plans and/or;
- The promotion of community education in Solid Waste Management and/or;
- The introduction of methods for fee collection for municipal waste services (plus corresponding local legislature and enforcement possibilities).

Objective at the Global Level:

To share international experiences on municipal Solid Waste Management, and exchange knowledge as well as project results between participating municipalities through the installment of a network between the participating municipalities and the development of information materials on Solid Waste Management.

5.2 Expected results of the thematic programme Solid Waste Management

Expected result at the Local level:

Improved organization and functioning of waste management services of the involved municipalities through approved municipal Solid Waste Management plans, increased community education in Solid Waste Management or fee collection methods for municipal waste services plus corresponding local legislature

Expected result at the Global level:

International experiences on municipal Solid Waste Management as well as project results shared between participating municipalities through the installment of a network between the participating municipalities and the development of information materials on Solid Waste Management.

6. ACTIVITIES AND IMPLEMENTATION ARRANGEMENTS

The Thematic programme Waste distinguishes between activities to be implemented on the local (bilateral) level and activities at the common level.

6.1 Activities to be organised within bilateral projects

1. At least 6 long term (sustainable) projects elaborated and approved by LOGO Advisory Board and implemented (one per municipal partnership; within LOGO South Waste at this moment 6 partnership participate). These projects will at least address one of the 3 focus areas as defined for the thematic programme Waste.

The implementation of these activities will be done by the municipal partnerships.

6.2 Activities to be organised at the collective level

Planned activities for 2006

1. Local South South exchange between participating municipalities in South Africa (Naledi, Buffalo City and Emfuleni) and Indonesia (Banda Aceh and Ambon). Possibilities for local exchanges in region country for Nicaragua (Masaya) and Sri Lanka (Galle) will be further explored.*
2. Installment of a network between participating municipalities (each municipality will have a contact person to this end). The network will be in contact by using internet / email. To this effect VNG International will investigate possibilities for an interactive part on

the website of VNG International on Solid Waste Management. The network will facilitate the exchange of project documentation, reports and other materials and foresees in a Question / Answer section on the site that is kept update by the municipalities and VNG International.*

3. The LOGO South programme will be used as an entry point to access more donor funding for municipal waste management activities and a common lobby will take place towards donors at global and local level for Solid Waste Management subsidies. To this end a database will be put in place with information on major donor activities in 4 countries on Solid Waste Management including links to application formats and the possibility of support letters from VNG International . During the training and South South exchange attention will be paid to acquisition opportunities and skills.*
4. Development of information materials on community education concerning waste and health issues (focus area 3) and promote use. These information materials will bring together existing experiences with municipal waste management practices and will be of a practical, hands-on nature.

* Activities 1,2 and 3 will start in the year 2006 and will be followed up in the year 2007 and 2008.

Planned activities for 2007 and 2008

1. Development of information materials on Integration of Solid Waste Management in municipal policies (focus area 1), Financial sustainability (focus area 2) and promote use.

2. Training in The Netherlands on Waste management with focus on either Strategic planning for waste management, community education or financial sustainability or a combination of these (2007). This training will be organized by VNG International in cooperation with the Dutch cities and will be approximately 10 days.
3. A South South visit for the 4 participating countries (Sri Lanka, Nicaragua, Indonesia and South Africa) to South Africa with exposure visits to the three participating South African municipalities. Theme and working methodology to be further defined (2008).

6.3 Target group

The following target groups have been identified:

- Local politicians
- Local officials from waste management departments
- Local population, especially local interest groups dealing with Solid Waste Management.

For each activity, especially at the common level, a specification of the exact target group will be made.