



The development of municipal services through a pilot-project approach: *The case of a composting project in the City of Banda Aceh*



SECTION 1: Summary

In February 2005, in the aftermath of the Asian tsunami disaster, the Canadian International Development Agency (CIDA) invited FCM to participate in a mission to Indonesia to determine what assistance its Canadian municipal partners might be able to contribute toward the reconstruction and rehabilitation process. In April 2006, CIDA approved FCM's proposal for the *Canada/Aceh Local Government Assistance Program* (CALGAP) which began operating the following month. Focusing on the City of Banda Aceh and the Districts of Pidie and Aceh Jaya, CALGAP works to strengthen the management, planning, service delivery and participatory mechanisms of the local governments. It also promotes good governance principles around the themes of peace and conflict sensitivity, gender equality, environmental sustainability and anti-corruption.

CALGAP's support for a waste diversion initiative in Banda Aceh was a response to an expressed need, while also recognizing the efforts of other donors in various aspects of waste management. The city's Sanitation and Parks Department had very limited assets to provide collection services throughout the municipality but a spirited and dedicated leadership was working hard to provide a modest level of service on a regular basis. Lack of widespread and coordinated public outreach activities on waste management issues and waste diversion initiatives contributed to stresses on collection assets and landfill space. Numerous unorganized recycling initiatives had been initiated by private venture capitalists. Scavenging of plastic, steel, glass and aluminum containers at the landfill, by collection workers and the community had spawned an informal recycling network to generate small personal income from the sale of these products. A residential waste audit was conducted in June 2006 estimating approximately 70% of organic waste in the waste stream.

In response to those factors, CALGAP staff and municipal partners worked with DKP to establish a project called *Developing Small-Scale Backyard Composting in Banda Aceh*. The project team worked with key stakeholders in the City of Banda Aceh to establish priorities, goals and objectives for the project. In addition to providing a practical solution to the city's waste management dilemma, the backyard composting program exemplified how through good corporate management, the municipality can work with the community to improve services provided by the administration, and ultimately the quality of life and health of residents.

SECTION 2: CALGAP's approach to capacity development

Between June 2006 and May 2007, FCM undertook six technical assistance missions to Banda Aceh for the implementation of this initiative. The focus of these missions was, first, to build the capacity of DKP staff, giving them the practical skills to plan and operate a waste diversion program in the region and helping to promote community engagement and transparency. These missions also had the objective of helping develop and launch a pilot small-scale backyard composting project in the tsunami-affected village of Gampong Jawa, and also in two local schools: SM12 and Bambun Naja. The project aimed to supply practical solutions to the waste management problem and was also geared towards awareness-building. The missions focused on finding innovative opportunities to use and market the finished compost, thus contributing to other local restoration, rebuilding and beautification projects while providing a potential revenue source for the community. Some attention was also given to the possibility of extending the pilot project to more villages and eventually the whole City of Banda Aceh.

During the initial mission, the CALGAP team assessed current waste management operations, including the municipally-run landfill, private sector recycling programs and an NGO-funded compost demonstration house. With the assistance of DKP, the team visited the village of Gampong Jawa, SMP 12 and Bambun Naja religious school. They also identified leaders in the community who were interested in supporting the pilot project. A series of workshops provided DKP staff with hands-on experience with composting technology. Finally, CALGAP and DKP staff collaborated to complete a waste composition study in the pilot areas to determine the baseline conditions.



Left: Informal recycling networks proved to be very lucrative in post-tsunami Banda Aceh.

Below: Regular monitoring on the use of composters took place during the pilot phase of the project.



Above: CALGAP and DKP staff determine baseline conditions in the pilot areas.

During the second mission, the Canadian project team and DKP staff researched potential local suppliers for the provision of household composting units. The team met with school administrators, teachers, children and village residents to discuss the project and gather their input on the preferred sizes and types of containers. Education was a major focus of the mission, with the launch of composting logo design and essay writing competitions at the schools. The team also consulted with the schools regarding the development of a composting workbook to be used as part of the curriculum. In addition, the team led capacity building workshops with DKP staff, village and school representatives, imparting technical waste management advice as well as sharing Canadian approaches to public consultation and community involvement.

Intense preparation was required for the third mission, which saw the actual launch of the pilot composting program. DKP worked closely with local leaders, the Mayor's office and the CALGAP project team to coordinate the launch, distributing invitations and educational materials. Composting pails and containers were inspected carefully and delivered to participating households. Staff worked together to build two large composters for the pilot schools. The project was launched on February 11th, 2007 to great public acclaim (see cover photo), garnering a strong endorsement from municipal officials, the local community and the international community working in the waste sector in Aceh province. Door-to-door visits following the launch allowed the team to answer questions, resolve any problems or concerns and survey the roll-out process.

The fourth and fifth missions were used to plan and start the extension of the pilot project to the rest of the City of Banda Aceh. The last mission followed-up on and evaluated the project with DKP and a number of stakeholders. Waste audits conducted at the village and schools allowed the team to benchmark the success in comparison to baseline waste composition figures. The team continued to in-



vestigate opportunities for the marketing of finished compost to developers for their landscaping needs. Building on the success of the pilot project, a plan to scale up the composting program was developed with DKP.

SECTION 3: Results of the pilot project

The launch of the project was attended by about 1,200 people and received print, television and radio media coverage. This widespread exposure, heralded by the slogan "Clean and Beautiful Banda Aceh", contributed to increasing community awareness of waste diversion and management issues. In the pilot village of Gampong Jawa, follow-up evaluations showed that 75 of 350 households were participating in the project, a rate of about 21 per cent. However, the waste audit of village garbage, conducted three months after the pilot began, showed a huge reduction in the percentage of organics in the waste stream. Only 17 per cent of audited waste was compostable material, compared to the 70 per cent baseline figure measured prior to the pilot project. This impressive benefit is explained by the fact that composting households are those with more members; the project successfully engaged the main generators of organic waste.

At SMP 12 and Bambun Naja schools, two composting clubs were formed to take responsibility for managing the school's organic waste. Ten male and ten female students from the high school science class participated in the clubs, in keeping with CALGAP's gender equality objectives. Waste management responsibility among staff

and students has transferred into other areas, resulting in marked improvement in the cleanliness of the school yard. Finished compost has also been used to maintain the school's garden.

The project successfully developed the knowledge and skills of DKP staff in the technical aspects of composting and conducting waste audits, seen through their integration in regular operations of the department. DKP staff also developed their ability to carry out public consultations, engage the community and deliver educational programs such as the recycling of paper. Finally, through the preparation of funding applications and budgets for the extension of the pilot program, the DKP was able to strengthen its project management and proposal development skills, while also taking steps toward CALGAP's mandate of integrity and fiscal accountability.

Following the launch of the pilot project, DKP has received a number of requests for composters from residents of other villages. The department organized community meetings in three villages and conducted training sessions with about thirty interested households from each of the villages. There has been great support from Banda Aceh's political leaders to expand the composting program to encompass the entire city. In response, CALGAP has developed a comprehensive work plan for developing home composting throughout Banda Aceh. This pilot project extension includes ongoing technical assistance, ad hoc training, distribution of supplies, program monitoring and a promotional and educational strategy.



Students learn eagerly about composting

SECTION 4: Lessons Learned

a. Building municipal capacity through an iterative and locally owned initiative

The main objective of the pilot-project approach was to build the capacity of DKP staff to introduce a community composting program into the department's normal services, while ensuring the potential benefits, costs and constraints were understood and taken into account before launching a full scale program. The project was undertaken by a small dedicated team of DKP, which took ownership of the project. This approach helped ensure transfer of capacities to DKP, while contributing to the sustainability of the composting program. The project ownership taken by DKP staff also allowed them to transfer capacities to other areas within DKP, exemplified by the development of the department's outreach activities to support paper recycling. It should also be noted that the initiative was part of the rethinking around waste management services needed in Banda Aceh. It provided local leaders with concrete information that helped them shape their policy in that field, in particular as they were preparing a waste management strategy.

b. Community participation in service planning and delivery

Early meetings and ongoing communication with community and school leaders, as well as with other donor organizations working in the area, helped to promote coordinated efforts and avoid duplication of services or resources. Regular meetings between all involved stakeholders also meant that constant updates were provided with regard to evolving equipment, personnel and funding needs.



DKP staff conduct community outreach. Photo shows presentation held in a house in the Peurada neighbourhood, Banda Aceh.

c. Positive engagement between DKP and schools to promote environmental awareness

Regarding the involvement of schools in the project, DKP staff was very successful generating enthusiasm in SMP 12 and Bambun Naja, but they also discovered after a couple of months and the beginning of a new school year, that mechanisms to maintain and renew commitment of students needed to be put in place. Consequently, they decided to monitor more regularly the schools and invest more time in the training of teachers that would stay in place year after year. They also adapted their educational material to different age groups so that the information shared was evolving at the same time as the children were growing.

d. Anti-corruption measures

Pertinent to CALGAP's anti-corruption cross-cutting theme, the team noted a need to ensure transparency in purchasing services or products from local vendors. Officials and administrators publicly committed to the planned expenditures through the project plan, and a detailed budget provided a clear intention for regional spending. As well, improved transparency in the planning stages and in the reporting of results was beneficial for addressing peace-building and anti-corruption goals.

e. Addressing gender equality issues

Related to CALGAP's gender equality cross-cutting theme, it became clear during the pilot project phase that women were getting more involved than men. For some, this is a good example of a successful mainstreaming of gender equality considerations when in fact women were mostly getting involved in the project in their traditional role as housewives responsible for managing household waste. Men did not get involved as much because garbage is considered women's work. To counterbalance this bias, it is recommended to develop, at the beginning of the project, a "marketing" plan to increase men's participation and promote the importance of composting for the broader community and the environment. This can include new ideas for the recognition of the work accomplished by participants but also finding well-known men to promote composting in more "masculine" settings such as coffee stalls and soccer fields, which was planned and successfully implemented in the extension phase.



Women were highly involved in the pilot phase.

SECTION 5: Sustainability and Replicability

The project was assessed by community members after a few months. They identified its strengths and issues and discussed possible improvements as well as the extension of the program to the rest of the City of Banda Aceh. The idea of making it a regular service offered by DKP was then validated. DKP's commitment to the composting program has increased over the course of the pilot project, illustrated by the appointment of four permanent staff and two short-term consultants to support composting initiatives. DKP also started unrolling the program through its own budget, purchasing a number of composters. In addition, composting was made an important component of their prepared environmental strategy. DKP also expressed the desire to apply the community outreach approach to build community spirit in the department's other programs.

DKP staff is responsible for the distribution of composting units to the 90 villages and schools within Banda Aceh. Each village is initially set to receive at least 10 to 20 composters, in order to facilitate the awareness-building and training process. DKP staff will monitor the progress and may provide up to 50 composting units to those villages that perform particularly well and express a desire for more units. The monitoring program can also assess the quality of the final compost being produced in each household and village, and allocate follow-up training to those areas where quality is poor.

The pilot project extension was a direct result of the success of the pilot program, as residents from other villages began contacting the DKP about receiving their own composters. Expansion into other villages occurred largely as a result of the outreach effort of female leaders, aided by a vigorous and diverse promotional and educational strategy. The communications campaign will sustain interest in the program and facilitate its expansion into even more villages.

CALGAP's focus on schools and students has boded well for the continuation and expansion of composting initiatives in Banda Aceh. SMP 12 and Bambun Naja's headmasters were very supportive of the program and acted as ambassadors, inviting other schools to sign on to the expanded composting project. As well, DKP staff met with the head of the Department for Education regarding the integration of composting into the public school curriculum. He suggested that a pilot composting curriculum be tested at three schools the following year.

SECTION 6: Tools for Developing a Community Composting Program

A successful community composting program depends on the use of the proper technique for composting and on active and informed citizen engagement in composting. The following pages present tools explaining how to compost and build a good community outreach plan. But before deciding if composting is the solution for a specific context, the municipal government should conduct a waste audit to develop a good understanding of the waste stream it manages. Guidelines are presented below.

Tool 1: The Waste Audit

The Big Idea

All over the world, people are changing the way they think about solid waste. Now, waste is increasingly regarded as a resource. This calls for new approaches and attitudes towards eliminating garbage, other than through open dumping, burning or land filling. At the same time, national governments are developing increasingly high standards for dealing with waste. This puts important pressure on institutions having to comply with regulations.

This redefinition of the “waste problem” has significant implications for local governments, who are often mandated to collect and dispose of, or otherwise manage solid waste within their administrative jurisdiction. How can local governments design, and devise adequate solutions?

A waste audit provides a low-tech solution to understanding waste management issues, while capitalizing upon existing equipment, infrastructure and human resources.

When to use it

A waste audit is a structured process to document the types and quantities of waste generated by an entity. The audit's objectives will largely determine the waste types and physical locations to be audited. Some examples of audit

objectives could be: to determine composition and quantities of waste being generated; to measure the effectiveness of existing waste management systems or to collect baseline data for measuring the effectiveness of waste reduction or diversion strategies. A waste audit is also an important first step towards a comprehensive waste reduction program.

A waste audit can be used effectively by any municipality that wishes to gain a clearer understanding of the composition of its waste stream. If resources permit, audits can be quite extensive, incorporating waste samples from different areas of a city, sectors within the community (i.e. residential, commercial, industrial or institutional) or seasons of the year. However, an audit can also be a relatively simple exercise to produce a ‘snapshot’ of the type of waste that is currently being disposed of in a particular area. The process can be done by workers with a limited amount of technical training, allowing for joint ventures between community groups, municipal staff, volunteers and support organizations.

As an example, the approach was particularly applicable to the City of Banda Aceh. In the aftermath of the tsunami, the Department of Sanitation and Parks (DKP) had very limited assets to provide collection services throughout the municipality. DKP staff had been working hard to provide a modest level of service on a regular basis and few waste diversion initiatives were in place. Information about waste streams was virtually non-existent, which limited the capacity of local leaders to design and undertake specific actions to re-think its waste management challenge.

After having selected Gampong Jawa as the pilot-area, a small team of DKP staff, with assistance from CALGAP consultants, conducted a waste composition study to collect baseline statistics useful for benchmarking in the planned pilot area. The team emptied and sorted the contents of a waste collection truck, weighing each category of waste and comparing them by their percentage of the total weight (see box below for the breakdown of waste audited).

RESULTS OF THE WASTE AUDIT IN GAMPONG JAWA, NOVEMBER 2006

	Plastic Bottles	Steel Cans	Plastic Film	Paper	Textile	Grass/ Food	Wood
Weight (kg)	449.68	3.1	10.1	15.5	17.8	4.1	303.58
% of Total	100	0.7	2.2	3.4	4.0	0.9	67.5

The audit identified that about 70 per cent of total waste was organic material. This made clear that designing and implementing a waste diversion strategy targeting this specific stream of waste could have an enormous impact on waste collection and disposal activities. Household composting was identified as one of the most practical and effective solutions.

How to use it

Prior to conducting an audit it is useful to meet with those involved in waste collection, including engineering and public health officials to review the protocol, terminology and forms that will be used during the project. It is important to educate and train the workers in the proper ways to handle hazardous materials and in all other pertinent safety measures. Necessary equipment for a successful waste audit includes gloves, rakes, shovels, nylon collection bags, tape measures, writing instruments, clip boards and recording forms, as well as a weigh scale large enough to accommodate the sample size.

Auditing waste is a relatively simple process but can be tricky. The figures from the audit should be valid and reasonably accurate; therefore, the selection of the location (or the sampling pattern) must be appropriate to inform the proposed area of intervention. It is also important to think about how the rate of waste generation varies over the course of a day, week, month and year. Does the flow of waste have a daily or weekly pattern?

In the case of the CALGAP project with DKP in Banda Aceh, the waste audit aimed to inform the design of a pilot waste diversion project in a village. It was decided to conduct the audit on the content of a waste collection vehicle after its regular route in the village of Gampong Jawa. This approach was simple to replicate and allowed for future monitoring. It was also recognized that ambient humidity would affect future audits by changing the proportional weight of certain materials. Since audits have to be conducted outside and with limited resources, it was simply emphasized with the audit team that this factor needed to be considered upon each audit. The box below explains three basic steps to plan and conduct a waste audit.

Final Analysis

Audits require limited staff and resources, and are easy to put in place as regular operations. A simple, regular and well conducted process can then be made to evolve in complexity to provide more detailed information on specific waste categories (by sub-dividing initial categories) or sources of waste generation (by targeting more specific locations).

A waste audit can be a very useful tool for prioritizing the most practical local waste diversion initiatives. It can also support the monitoring and performance evaluation of waste-related operations, programs and projects. As such, it can allow local governments to introduce facts and other rational elements into the decision-making process. Management support is essential for ensuring the smooth

completion of the audit, and that any findings or recommendations are considered and implemented.

Initiatives like this are also useful for the training and capacity-building of municipal staff for future waste diversion projects, as well as for fostering collaborative efforts to solve waste management issues.

How to plan and conduct a waste audit

1. Plan the audit carefully and define the study area: You will need to get management support, define the objectives of the audit, define the study area and the approach, establish the categories for the sorting of waste, organize people, etc. Crews must also be trained to recognize the various waste categories that will be used in the audit. This may take some time, but the effort will pay off when the audit is under way.

2. Collect and sort the waste from the study area: A basic layout for a sorting area should be defined. Contents should be emptied onto a clean, flat surface so that workers can visually assess the load and identify the primary waste components. All materials are sorted in baskets according to predefined categories. Each category is then individually weighed and recorded on pre-printed forms. The area is cleaned and the sorted waste disposed of.

3. Analyze the data and write up the results: Once all the waste is sorted, a data sheet is compiled showing the quantity of waste by material categories that was generated within each area sampled. These figures can be converted into percentages of the total amount of waste collected in the sample. The data is then carefully considered and analyzed, and the results can be written up and recommendations made.



A waste audit in process in Banda Aceh.

Tool 2: The Composting Technique

The Big Idea

Confronted with environmental and community health issues, municipal governments have to design and implement waste diversion and management strategies that are cost-effective and appropriate to their context. Community composting often offers good potential to reduce the waste stream going to landfill, while also generating direct benefits to participating individuals and groups by diverting and valorizing organic matter through the production of compost. But what are the principles behind composting? And how can a municipal government use this natural process to support its strategy to manage waste and improve the environment?

This practical tool explains the essence and usefulness of the composting technique, and the main challenges to expect in applying the model.

When to use it

Composting is applicable to all municipalities. It can be done by all sectors of society, young or old, male or female, and can be fostered through simple community outreach and education initiatives. While relatively wealthy, western cities and towns may benefit the most from curbside collection of organics and centralized processing at a large composting facility, municipalities like Banda Aceh or smaller towns are likely to make the greatest gains with minimal equipment, tools or expertise. The approach to be taken should be informed by a waste composition audit, as described in Tool 1, The Waste Audit, described on pages 6 and 7.

The residential waste audit conducted in Banda Aceh in June 2006 showed that organic materials made up 70 per cent of the total waste stream. Therefore, a backyard composting initiative had the potential to reduce a huge percentage of residential waste going to the landfill. Banda Aceh fits the profile of other communities that have successfully implemented household composting. Waste audit results showed similar waste composition figures to the City of Galle, Sri Lanka, the municipalities of San Isidro and San Pablo in Costa Rica and Olongapo in the Philippines. Low levels of recyclable materials in the waste stream of these municipalities are indicative of small-scale, private sector salvages and recycling operations. The remaining waste is largely organic material, suitable for composting. Land filled organic waste eventually breaks down; however, in the process of doing so, it mixes with various toxic or hazardous waste found in the landfill and creates toxic leachate run-off (a contaminant of soil and water) and methane (a potent greenhouse gas).

Backyard composting provides a low-cost, sustainable solution that benefits both the community and the environment. As the Banda Aceh Project demonstrates, municipal

governments can harvest these benefits by introducing composting to their communities.

How to use it

All organic waste, whether food waste, leaves, grass clippings or other materials, is naturally broken down by earthworms, bacteria and other microorganisms. Composting speeds up this natural process by creating the optimal conditions for decomposition. Finished compost can be used by residents to improve the performance of their household gardens or it can be sold as a product to replace artificial fertilizers.

The quality of compost will vary with the mix of organic waste used. While the biophysical principle is complex, it should be understood that some materials contain high amounts of carbon, which the bacteria need for their energy, and other materials contain nitrogen in the form of protein, supporting the energy exchanges. Keeping carbon and nitrogen sources separated in the pile can slow down the process, but decomposition will still occur.

Suitable ingredients with relatively high carbon content include: dry, straw-type material, such as cereal straws, leaves, sawdust, wood chips and cardboard. Ingredients with relatively high nitrogen content include: green plant material (fresh or wilted) such as crop residues, hay, grass clippings and weeds; manure of poultry and herbivorous animals such as horses, cows and llamas; fruit and vegetable trimmings.

Some materials are not suited for backyard composting systems and should not be used, as they decompose slower, attract vermin and require higher temperatures to kill pathogens than backyard composting provides. These materials include meat, dairy products, eggs, restaurant grease and cooking oil. It is also best to avoid composting diseased plants or weeds that have already produced seeds.

In choosing a location for the compost pile or container, the site should be readily accessible. Sunny spots work best



Finished compost helps to improve the performance of household gardens.



Including a range of types of organic waste produces the best quality finished compost. These women were coached to cut their kitchen waste before composting it.

in areas of poor drainage, while shade is preferable for high drainage sites, in order to ensure the compost does not dry out. A compost container is not necessary but it improves its appearance, keeps out animals and provides a means to control sunlight and moisture. A container or pile that is one cubic meter or larger provides the best results, as it heats up faster than smaller piles. When adding material to the compost pile, it is best to use a mix of kitchen waste, leaves and grass clippings to balance carbon and nitrogen contents. Moisture should be controlled as much as possible, to keep the pile about as wet as a squeezed-out sponge. Additionally, it is best to chop or shred large materials before adding them to the pile, as smaller items will break down much faster than larger ones.

It is essential to turn the compost pile every two weeks by digging down into it, introducing air and new organic waste into the centre where the microorganisms are concentrated. Active compost piles produce heat and steam when turned; a finished pile will not produce much heat. It is necessary to dig down beneath newly added material to find the finished compost, which should be dark, crumbly and earthy-smelling. If there is an access door at the base of the container, compost can be removed through it; otherwise, uncomposted materials on the top of the pile will have to be shoveled off to access the compost and then be replaced. Any uncomposted materials in the finished compost should be removed and returned to the pile.

Depending on conditions, finished compost may be ready in as little as six weeks, but it is more likely to be finished within about six to twelve months.

Final Analysis

Composting provides a low-tech solution to managing large volumes of residential waste in an environmentally responsible manner. Backyard composting has the advantage of removing a huge percentage of residential waste from the waste stream, taking pressure off of collection services, landfills and the surrounding environment.

Composting recycles nutrients and organic matter back into the soil, improving friability and soil quality. Especially in tsunami-devastated areas, it has the added potential to remove salt from land that was salinated in the disaster. Compost can also be used to revitalize home vegetable gardens that provide a source of sustenance and assist in numerous landscaping projects to beautify the community.

Tool 3: The Community Outreach Plan

The Big Idea

The impact of waste management and environmental hygiene on communities' health and quality of life are increasingly recognized but still need to be shared to get the community to actively participate and modify behaviors. Thus, the team should develop a community outreach plan to identify stakeholders, define messages and ways to get them across. The objectives are to raise awareness of the composting program within the community, to transfer knowledge and build consensus. Community outreach activities evolve as the project goes on.

When to use it

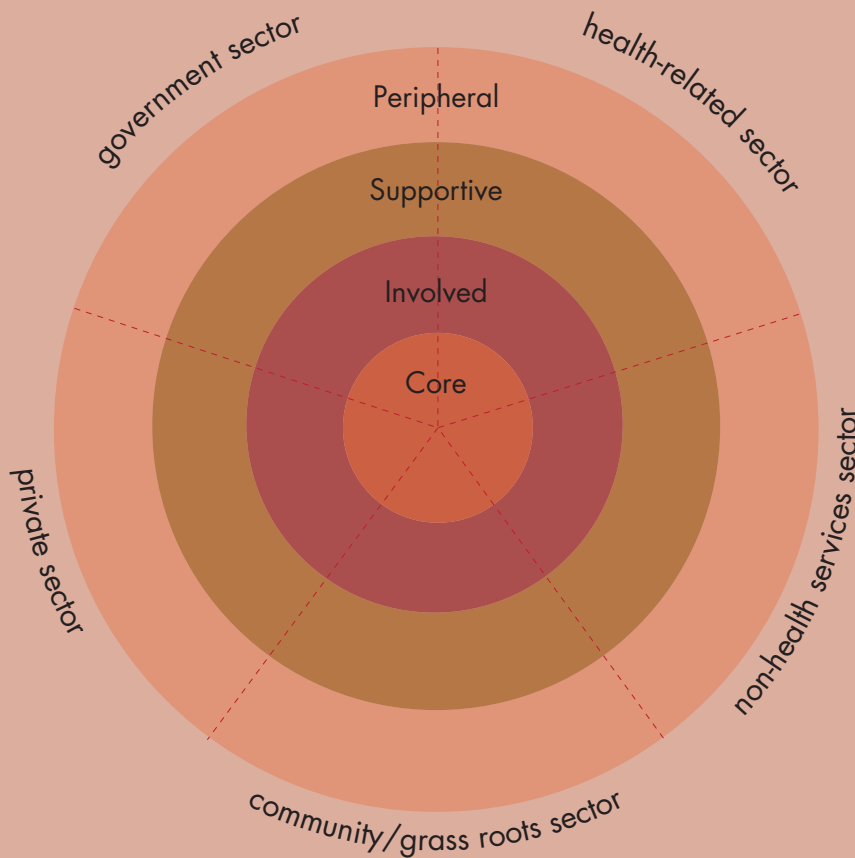
A community outreach plan is a full component of a composting project and various communication vehicles can be used to meet outreach needs. The project team should meet early on with village leaders, school administrators and children to discuss the project plan, gauge their receptiveness and gather input about specific concerns and ideas. Outreach activities continue up to and following the project launch in order to support its implementation phase, reinforce buy in and make information available in the community.

How to use it

1. Start a community outreach plan by establishing a network of stakeholders that can contribute to the project. It is useful to group these stakeholders into categories based on their involvement with the project, such as core members, involved members and supportive members. Stakeholders can also be organized according to their sector or role within the community, such as municipal staff, community leaders, school leaders, media, interest groups, funding agencies, faith groups or special interest populations. See the box on page 10 on Developing a Sector Map for your Community for more information.

Developing a Sector Map for Your Community

Use this worksheet to help identify potential community stakeholders to be involved as you proceed through the program planning process.



Core on the situational team
Supportive providing some form of support
Involved frequently consulted on part of process
Peripheral need to be kept informed

2. In the planning stages, gain as much information as possible about the project's target population. The team should gather very specific information about demographics, characteristics of the neighborhood and geographic area, ethnic, linguistic or religious diversity within the community and any particularly relevant sub-groups within the population. This information will help the team ensure that all parts of the community have reasonable access to the benefits of the project in proportion to their needs. This approach will contribute to fairness and equality between members of the community and thus strengthen social cohesion. See box on Identifying Populations of Interest on page 11 for more information.

3. Decide what key messages should be shared with the stakeholders. Key messages should include a description of the project's benefits. CALGAP's initiative in Banda Aceh

was presented as one that would help make Banda Aceh a clean and beautiful city that everyone would enjoy. A certain emphasis was also put on the fact that the compost produced would be beneficial for lawns and gardens. Acehnese love gardening and many of them got involved in the project because of this. Participating residents should also be recognized for their continuing support of the program by the municipality's distribution of flowers, trees, seeds and waste bins. Successful villages should be featured in newspaper articles and on magazine covers, and might also be selected to host a celebratory lunch for the Mayor of the city.

4. Determine the best way to contact and communicate with members of the community. Consider both time of day and mode of communication (phone, mail, newspaper, email, fax or door-to-door). In the pilot

village of Gampong Jawa, prior to the project launch, the project team went door-to-door and introduced themselves to residents, explaining the composting initiative and extending an invitation to the launch event. This face-to-face approach led to a large turn-out at the event and was identified as an efficient way to reach people in the following stages of the project.

It should also be mentioned that the expansion of the initiative to other villages was facilitated largely by female local leaders. Women were particularly effective at disseminating information to other villages and raising interest in the composting initiatives through community gatherings.



This happy woman brings home her new waste bin, provided by DKP through CALGAP.

Identifying Population(s) of Interest

Use this worksheet to determine possible sources for identifying your population of interest. Combining various sources will provide a more complete picture of who is your population of interest.

Describe the population your program is intended for. Try to be as specific as possible.

- A. What are their demographics (age, gender, etc)?
- B. Where do they live? (e.g. geographic area, neighbourhood characteristics, etc.)
- C. What is the best way to communicate with them?
 - Medium (phone, fax, mail, e-mail)
 - Time of day
 - Time of week
- D. What is the best way to reach them? (e.g. best time of day, medium used, etc.)
- E. Are they all very similar, or do they have differences? (i.e. consider diversity issues)
- F. Are you interested in any sub-groups of this population?
- G. Using the diversity dimensions listed below as a guide will help in defining the population/populations of interest and will ensure inclusive effective best practices.

Have you considered the diversity of the population or populations of interest?

Related to:

- Age
- Sexuality (i.e. sexual orientation, gender identity)
- Ethnicity
- Citizenship Status
- Socio-economic Status
- Class
- Racial Identity
- Race
- Mental/Physical Abilities
- Faith/Religious
- Language
- Education/Literacy level
- Gender

H. Are there communities that are most vulnerable in relation to your health issue?

Looking at the key factors and the data/research you have done for your community, which groups of people of factors require special attention to achieve the goal? (E.g. Pregnant or breastfeeding women living in high risk circumstances, children in low-income families, seniors)

Population of Interest

List all relevant Population of Interest

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Key factors that need attention

- _____
- _____
- _____
- _____
- _____

In the pilot schools Bambun Naja and SMP 12, outreach activities began with an art and essay competition, held for all grades at the two schools. The art competition involved designing a logo for 'Clean and Beautiful Banda Aceh' while the essay was on "Why is composting important to make Banda Aceh clean and beautiful". Thirteen winning artworks and the top three essays were published in a calendar. The top artwork was chosen as the logo for "Clean and Beautiful Banda Aceh" and was featured on all promotional materials following the project's launch. The team also recruited science teachers at the schools to start composting clubs. These student-run clubs were useful for educating staff and students about waste diversion and environmental themes and for sustaining widespread interest in the program.

Final Analysis

The community engagement approach and the promotion of voluntary participation were key elements of the project's success. Outreach activities identified the key stakeholders and champions among politicians, senior municipal staff and the broader community. The training of DKP staff in public consultation methods allowed for the involvement of the whole community in the planning and decision-making processes. Promotional materials incorporated the ideas and artwork of school children, integrating them into the process and fostering a sense of responsibility. The DKP is interested in translating the community outreach approach to its other programs in an effort to build similar community spirit.



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