



Promotion of Composting in Schools in Collaboration with Municipalities in El Salvador: Concepción Batres, Jiquilisco, Puerto El Triunfo and Santa Elena.

Summary

In 1997, the Regional County Municipality (MRC) of La Matapédia, Que., successfully undertook an innovative pilot project in the area of domestic composting with the municipality of San Vicente in El Salvador. With the support of the Federation of Canadian Municipalities' International Centre for Municipal Development (FCM - ICMD), the MRC decided to renew its involvement, this time in other regions of El Salvador. In 2000, the municipalities of Jiquilisco, Puerto El Triunfo, Concepción Batres and Santa Elena in the Usulután department were selected for a two-year project to promote composting.

The accumulation of solid waste has led to groundwater and soil contamination and has developed into a widespread problem in El Salvador. The transformation of organic waste into compost is an essential step towards the reduction of this contamination. It was decided to target educational establishments for composting activities, since this would increase young people's awareness of their social responsibilities as waste-producing consumers and as citizens of their municipality. As a result of taking part in the composting project in their schools, students would become catalysts for change and reproduce their experiences at home.

In order to promote the use of composting, the project developed a strategy that included participation at several levels: 1) it promoted the project with the municipal councils and obtained their full support. This resulted in a formal announcement of support and the nomination of a municipal staff member to participate in the project; 2) a municipal program with a work plan was set up in each participating school; 3) the municipality undertook to supervise and support the project in the selected schools; and 4) a relationship was developed between schools and municipalities.

As a result of this project, participating schools contributed to the reduction of the volume of solid waste and the level of contamination in their area. Young people became more environmentally and socially aware and the municipal governments involved in the project were able to see the importance of running programs like this in schools and communities.

Introduction

The Partnership Program is managed by FCM's International Centre for Municipal Development (ICMD) and financed by the Canadian International Development Agency (CIDA). The program aims to build the capacity of municipalities and municipal associations in developing countries with the

goal of improving municipal service delivery and strengthening the management of public affairs, as well as promoting sustainable development.

The municipalities of Puerto El Triunfo, Concepción Batres, Santa Elena and Jiquilisco are located in the department of Usulután in El Salvador. Usulután covers an area of 2,130 square kilometres and has approximately 330,000 inhabitants. Its economy revolves around the cultivation of corn and sugar cane. These municipalities were chosen because of the presence and collaboration of SACDEL (*Sistema de asesoría y capacitación para el desarrollo local*), a non-governmental organization involved at the environmental and local development levels. The Regional County Municipality (MRC) of La Matapédia, Que., has an area of 5,376 square kilometres, a population of 20,833 and covers 18 municipalities. Agriculture and forestry play an important role in the region's economy. The MRC of La Matapédia has been participating in ICMD's Partnership Program since 1995.

The project objectives and strategy were inspired by a program implemented in several Canadian municipalities, by the past experiences of the MRC of Matapédia, and by a handbook on promoting the use of compost that was prepared by the Canadian ecological group Nature-Action.

Context

In El Salvador, the increasing problem of groundwater and soil contamination caused by solid waste is exacerbated by poverty and the lack of resources available to municipalities. The idea of transforming organic waste into compost, involving young people at educational establishments together with input from the municipalities, is an attractive one. The technology is simple and no large investments or expensive equipment are required. By educating a new generation, the goal was to develop young people into pioneers of a new life style. The program is simple and accessible to the majority of municipalities and institutions.

The project aimed to provide these leaders of the future with training in composting and motivate them to share their knowledge and experiences with the community on a voluntary basis. More specifically, the objective was to train students, teachers and municipal staff about the composting process and to make young people aware of the importance of developing a civic conscience and of cleaning up the environment.



Students participating in the composting project.

The project was led by a volunteer from the Canadian Centre for International Studies and Cooperation (CECI) who was a specialist in composting. Numerous resources were involved to ensure that the project was carried out successfully, including educational centres, the MRC of La Matapédia, SACDEL, CECI and the municipal governments of El Salvador. FCM's International Centre for Municipal Development provided technical and political support and financed the technical missions between the schools and municipalities from Quebec and El Salvador. FCM also provided promotional material and gardening materials for the schools. Students and teachers from Quebec and El Salvador provided the labour on a voluntary basis.

The Approach: Engage Youth And Municipal Governments

"Changing the world ... it's no small thing! Giving young people the power to put into practice what they learn is to allow them to play their part as citizens."

Environnement Jeunesse

The municipal composting project involving the four municipalities from the Usulután department of El Salvador adopted a participatory and community approach. The emphasis was placed on engaging students, teachers and municipal staff through awareness raising activities, meetings, physical activities that facilitated action learning, exchanges between Quebec and El Salvador and by developing **motivation** through visible short-term results and the creation of a reward system (that included competitions and prizes).

Promotion And Consensus At The Municipal Council Level

In the framework of the project, the four municipal councils were approached with a view to obtaining formal support for a school and home-based composting program. Each municipality then appointed a person (either an agronomist or an environmental technician) to be in charge of transferring the methodology for producing compost and promoting its use in participating schools.

Training Teachers And Students

Each school developed a work plan in a participative manner and trained a group of students working under the supervision and coordination of a responsible teacher. In the four municipalities, a total of 621 students, both boys and girls, and 30 teachers, men and women, took part in the project. The training sessions focused on the sorting, classification and treatment of solid waste material, the production of compost and its practical uses in horticultural projects, as well as for gardens and nurseries. The participants stuck up posters in the schools that carried messages such as "Let's put garbage where it belongs" and "Protect your environment". In certain cases, participants also provided containers of various colours to help sort garbage.

The exchanges between the municipalities from El Salvador and the MRC of La Matapédia enabled students, teachers, mayors and municipal councillors from both regions to provide each other with mutual support, to share their experiences and knowledge of composting, as well as allowing exposure to each other's culture and undertaking joint promotional activities.

Advice And Support From The Municipalities

The municipal members of staff that were designated to the project undertook regular visits to the schools to provide technical support. By supporting the students in their domestic composting efforts and promoting the experiences from the schools, the project also succeeded in involving several parents and the community in project activities.

A New Relationship Between the Schools And The Municipalities

The municipal councils played an innovative role in the project by recognizing and rewarding the efforts of the schools and the communities to clean up the environment. Various competitions and clean-up campaigns were organized both within participating schools and between schools. The plants and bushes that were produced in the school gardens and nurseries contributed to the beautification of municipal public spaces and in recognition, the municipality indicated the name of the school that provided the plants and bushes.

Results: A New Respect For The Environment

The project contributed to a reduction in the volume of solid waste generated by participating schools, as well as in neighbouring commercial enterprises and students' homes. The high quality compost that was produced as a result of the project was used as fertilizer in vegetable gardens and nurseries. Some schools also became involved in reforestation, cleaning and beautification projects of school recreational areas and public spaces. Participants developed better hygienic practices. A further unexpected result was an improvement in the nutritional intake of students due to the high quality of the vegetables that were harvested in the vegetable gardens. Approximately twenty other schools in the region were impressed by the positive results from the project and showed an interest in taking part.

"Thanks to the support we have received from Canada, we are now involved in a much larger composting campaign. We have set up a micro nursery and the plants that are being grown here are helping us to reforest our municipality. This project has won several prizes for creativity from the Ministry of Education – both regionally and nationally – and it will be integrated into the school program next year."

Teacher in charge of the composting project at the National Institute of Puerto El Triunfo.



Students and teachers carrying out the final phase of the composting process.

The project encouraged the development of an environmental conscience in students, as well as making them aware of their social responsibility towards the problem of environmental contamination. The techniques learned during the course of the project were replicated in several communities and 11 of the 23 participating schools are still involved in composting activities. Using young people to carry out and promote composting was an appropriate strategy. The students were willing to talk about their experiences and were able to pass on a simple and simplified message at home and in their communities.

The municipal governments involved in the project became aware of the importance and efficiency of running a program like this in schools and communities. Three of the four municipalities were very active in the project and provided technical support and materials to build composting bins, as well as organizing beautification competitions and campaigns.

Analysis: Composting Is Easy And Cheap – But You Have To Be Motivated Changing The Attitude Of Young People

To make sure that the project was a success, project leaders had to ensure that the students' motivation levels did not drop. For this reason, the people in charge of the project have to be strongly committed to environmental protection and be both dynamic and creative. Various methods were used to raise students' interest in the project, including interactive educational games, ensuring that students were actively involved in all stages of the process and using language to which students could relate. It is preferable to begin at the start of the school year so that there is sufficient time to create the gardens and nurseries with the compost that has been produced.

The Importance of The School Environment

It is absolutely vital to work with educational establishments that are dedicated to making real changes in their environment. It is better to train a small group of highly motivated students than a large group that does not have the required motivation. The project showed that small groups of motivated students improved the cleanliness and appearance of their school and took on new measures of hygiene to ensure the school stayed clean. The constant support of the teaching staff is indispensable. The best results were obtained in schools that provided a designated teacher to be in charge of



Silvia Mejía Q., teacher in charge of the composting project in her school and two project participants.

coordinating all composting activities. To make sure that the program is sustainable, it can be integrated into the school's educational curriculum. It might fit into the science program or schools could make use of the hours given to community work that students must complete to graduate. It is even feasible to create an ecological committee with an annual work plan that has been developed in collaboration with the environmental department of the municipality.

"In the beginning, when we started to make compost from the organic waste that we had, I couldn't believe that it could become manure. Now I have seen the benefits, I've seen the effects it has had on the plants in the school garden."

Comment from a teacher at the Efrain Jovel School Centre, who was in charge of the composting project at that school

Giving Municipalities A Major Role To Play

It is essential for the municipality to have a major involvement in the whole process. The presence of specialized municipal staff that have been trained in the promotion of composting is very important for the success and sustainability of the program. The municipal staff must provide regular and thorough monitoring of the project. The municipality must also liaise with other institutions (such as the Education Ministry, environmental non-governmental organizations and agricultural cooperatives) to coordinate simplified dissemination of information activities. It is important that municipalities institutionalize the program to ensure its sustainability. In this case, synergies were developed on an institutional level since the promotion of the use of compost project had the same objectives as the solid waste management program set up by the municipalities of Concepción Batres and Puerto El Triunfo.

Gender Equity

The project gathered data disaggregated by sex so as to document the level of effort to involve as many girls (298) as boys (323). There are widespread stereotypes and preconceived ideas concerning the participation of girls and women in this sector of activity. Thus the girls acquired new behaviours when sorting or depositing solid waste in the appropriate containers. The boys were more involved in the upkeep and production of the compost.

In the communities, however, the number of women that were more involved in the production activities was higher (127), especially when there were women in charge. As a general rule though, the leadership came mainly from the men. It should be noted that the attitude of the teachers posed a serious handicap to the motivation of the girls, since the teachers tended to feel that the composting activities should be undertaken by boys.

Lessons Learned And Possibilities Of Replicating The Program

At the beginning of the project, the initial work plan had to be revised, as it was too ambitious. It was also necessary to revise the promotional strategy and the technical support for the schools and communities, as they required a different approach from those used in Canada.

The program to promote the use of composting in schools can be developed in other municipalities in the country, and indeed in other countries. However, a participative approach must be used to motivate the students. The approach must take into account the specific context of the project as well as the socio-economic realities in which it is to take place.

The institutionalization of this project in the four participating municipalities has already been planned, as has the replication of this experience in other municipalities. The upcoming project plans to provide support to the Committee of Mayors of the Usulután Department (CDA) so that the municipal governments can take the lead in the promotion and implementation of a waste reduction and environmental remediation program by involving and engaging schools and communities. This project, which would be carried out with the support of the national association of municipalities of El Salvador (COMURES), is intended to be a tangible response to the demands placed on municipalities by the *Environmental Act of El Salvador*. This act requires municipalities to formalize the creation of an environmental commission or unit and to establish landfill sites that conform to health standards. This new initiative would adopt the same participative and community action learning approach as the project described in this case study. The involvement of COMURES and eventually the relevant ministries could favour the long term adoption of this successful model on a country-wide scale.

"We are happy to have been given the chance to learn how to make compost with the organic waste that we produce... The experience was a good one because we could see the direct benefits of the compost as they came out of the schools' vegetable gardens... We are going to do the same thing at home..."

Comment from students and teachers that participated in the composting program in the Usulután department.

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