



a toxics-free future

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International SAICM Implementation Project (ISIP)

In 2010, in an effort to demonstrate SAICM implementation via IPEN Participating Organizations, IPEN launched an International SAICM Implementation Project, also known as ISIP. ISIP aims to mobilize resources for initial enabling activities pertaining to national priorities, in keeping with the work areas set out in the strategic objectives of section IV of the SAICM Overarching Policy Strategy.

In particular, the ISIP supports the Governance objective of SAICM's Overarching Policy Strategy paragraph 26, which calls for enhanced "cooperation on the sound management of chemicals between Governments, the private sector and civil society at the national, regional and global levels."

In addition, ISIP builds on the 2008-2009 Global SAICM Outreach Campaign to raise awareness about SAICM and strengthen collaboration among the public interest, health and labor sectors.

ISIP Objectives

ISIP's four objectives include:

- Promoting the need for sound chemicals management
- Advancing National SAICM Implementation
- Promoting global SAICM implementation by global civil society
- Building capacity among NGOs developing countries and countries with economies in transition

Title of activity: Vrbovec Waste Project

NGO: Zelena akcija / Friends of the Earth Croatia

Country: Croatia

Date: 5.11.2010

Elements of SAICM Covered:

Work toward establishing and implementing national action plans with respect to waste minimization and waste disposal, taking into consideration relevant international agreements and by using the cradle-to-cradle and cradle-to-grave approaches (69); Carry out measures that will inform, educate and protect waste handlers and small-scale recyclers from the hazards of handling and recycling chemical waste (72); Promote waste prevention and minimization by encouraging production of reusable/recyclable consumer goods and biodegradable products and developing the infrastructure required (73); Implement demonstration projects on waste minimization and efficient resource management including zero waste demonstration projects (262)

Description of current waste management practices in your country:

Minimizing the amount of waste for treatment or landfilling needs a change in thinking and sometimes in approach, away from the idea that waste is inevitable and acceptable, towards a determination to phase it out. Croatian waste recycling statistics in 2005 were shamefully and pitifully low. Total municipal waste collected amounts to 1,344,830 t/a, of which 1,286,078 t/a was disposed of at waste disposal sites and 58,752 t/a was collected separately and recycled. In addition, 77,095 t/a of industrial waste was dumped at waste disposal sites together with municipal waste, which means that the collectors of municipal waste dumped a total of 1,363,173 t/a of waste at waste disposal sites.¹

At the moment no treatment facilities have been built, so the waste is landfilled on total 292 legal landfills out of which less than 100 are sanitized, and several thousand small illegal landfills.

Description of health and environmental effects of current waste handling practices:

During last couple of years several landfill fires were noticed on landfills in Dalmatia causing inevitable health effects. As already very well known such fires are the largest sources of dioxin in the environment. Besides that out of all landfills in Croatia only a couple have decent landfill gas capture systems so majority of produced CO₂ and methane is released directly in the atmosphere. Landfill leachate is seriously threatening more than several underground water wells, and under the national categorization of "soil", soil under the landfills are irreversibly damaged. When the life cycle of the materials is analysed, it reveals that a huge amount of energy and materials are wasted.

Description of existing legislation on waste management:

To deal with the waste problem the Republic of Croatia prepared the National Waste Management Strategy in 2005. As the strategy has been brought without any serious public consultation and was available for comments only after being put in the parliament voting procedure, Zelena akcija sent on 4th of October a letter to the Croatian Parliament asking the parliamentarians not to support this strategy because of the serious lack of recycling measures and public consultations.

The Waste Management Strategy will be implemented through a National Waste Management Implementation Plan, which was adopted on 19th July 2007 by the Government of the Republic of Croatia and will be valid for a period of 8 years. Croatian waste management has to be transposed on local waste management plans which had to be prepared, adopted and harmonized with the national waste management plan by 2008. Unfortunately, the majority of the counties, cities and municipalities failed to prepare the waste management plan.

Project Outcomes:

Description of the activity conducted to promote waste minimization:

Project coordination

Zelena akcija led the planning and expertise initiative as it has long term experience in management activities. Zelena akcija consulted daily with local partner Vrbovečka Udruga Mladih (VUM), which has established a good working relationship with the local authorities and municipal company and had the respect of Vrbovec citizens. Vrbovečka Udruga Mladih provided the "recycling officer" who was responsible for direct communication with citizens. The NGOs carried out most of the promotional and educational activities.

Model for waste management

The system implemented in the project is based on European best practices, and with simple modifications could be implemented anywhere in the region. Besides fulfilling the separate

¹ Guidelines Development for starting implementation of Waste Management Plan in the Republic of Croatia
LIFE04 TCY/CRO/000028 pg. 13.

collection requirements of the revised Waste Framework Directive (2008/98/EC), where collection is to be organized for at least materials such as plastics, glass, paper and metals, we enabled also home composting of biodegradable waste (which still has to be regulated at the EU level) through a possible future biowaste directive. Composting is beneficial in terms of reducing the volume of waste and accompanying methane within landfills and also in creating high quality soil fertilizers, and is one of the proposed methods to treat waste described in the EU's Landfill Directive (1999/31/EC). If implemented on a global scale, these activities would result in high carbon-dioxide equivalent reductions, less underground water pollution, less air pollution and savings of natural resources, which are the main goals of the EU Landfill Directive.

Citizens were required to separate waste in their houses into 3 fractions (paper, dry recyclables and residual waste) and to avoid dumping of organic waste by composting it in their gardens. The citizens had the daily support of trained activists for answering any questions and for assistance in using the shredder machine (for branches).



workshop for stakeholders

RE-USE Center-Vrbovec

One activity which came out from the pilot project was an idea from VUM itself. Stimulated by the waste sorting in city, but also the problems with other kinds of wastes followed by the overall bad financial situation in Croatia, especially with increased amount of poor citizens in the area, VUM decided to work with both. The establishment of the first re-use center in Croatia was very commendable. VUM collected old items from citizens like clothes, books, toys, furniture, electric and electronic waste and shared them among the people in need. Every Saturday there are few volunteers working, sharing, collecting, etc. old items, and making sure that everyone gets its fair trade. The RE-USE center in Vrbovec is still working, and with the help of the City it will be even more efficient.



Project promotion: Workshop in Belgrade, Serbia

After the implementation of the pilot-project, Zelena akcija sent the news on every internet platform that is working with waste. After a few days, the NGO Young Researches from Serbia sent an invitation to Zelena akcija for a seminar and workshop considering waste. Activists from Zelena akcija participated for 2 days in Belgrade, managing the workshop, and spreading the good news about the successful project in Vrbovec.

The workshop consisted of two parts:

- A seminar about waste management in general, and some positive examples from the world,
- A promotional presentation of the pilot project in Vrbovec, but also a presentation of RE-USE center in Vrbovec, which VUM started as an additional activity that came out from the pilot-project.

Both seminar and workshop were attended by around 40 participants from all over the Serbia. After lectures, a very fruitful discussion was organized. The main conclusions of the discussion were:

- to organize a large scale conference between the Serbian and Croatian government;
- to create an internet platform for all the interested parties to share ideas and experiences; and
- to work more actively on implementation of such positive projects, and spreading the good practices.



Waste lecture – project promotion Belgrade, Serbia

Project promotion: Waste lecture in Slatina

On 12th of May 2010 the National Coordinator and his assistant Ms. Tihana Tarandek held a waste lecture in Slatina. The lecture was organized by NGO Krik from Slatina. Almost 50 citizens visited the lecture and surprised the organizers who managed to find a seat for everyone. The lecture was also attended by all the stakeholders from the City of Slatina (City environment office and municipal waste company representatives).

After the presentations, discussion was organized. The decision makers in Slatina were very interested in organizing a similar pilot project in Slatina, to see the level of acceptance by the citizens, and also to obtain necessary data for preparing a larger project. All of us agreed that the situation in Croatia has very weak plans when it comes to implementation of sustainable waste management systems, so every positive example is useful and needed. Further conversation led to identification of local problems, and attempts to adjust some parts from pilot project on the local environment. Hopefully, the Slatina local authority will find this project useful, and start to implement it.

Lecture for Earth day (Vrbovec Youth Organization - VUM)

On Earth day, 22 April, 2010, VUM organized a lecture in City Hall for school students. The lecture consisted of showing a movie, "The Story of stuff" by Anne Leonard, and lectures about the re-use concept in everyday life. The re-use concept is an alternative way of living, mostly aiming to reduce some sorts of waste, like old clothes, old furniture, books, EE waste, etc. There were few participants, but the discussion after was fruitful since the re-use concept is very well implemented in the Re-Use Center in Vrbovec.



Anti-fashion show by activists of Re-Use Centre

Monitoring of recyclables produced, and transport to the landfill:

At least once a month, representatives from VUM and Zelena akcija visited the street of Mate Kvesteka, especially when the recyclables were put out for collection. Representatives measured the waste produced, and recyclables collected. Visits were focused also on conversation with citizens aiming to detect problems, or any other situations that they ran into while sorting waste. Since the municipal company at the start complained about the transport services, representatives also wanted to know how much time is necessary to collect and transport the recyclables on landfill. Approximately, 30 min is needed; 15 min to collect the bags, and 15 min of driving on landfill. Citizens were mostly satisfied emphasizing that this system is needed in whole city.

Educational workshop on landfill Beljavine

Instead of two separate workshops, Zelena akcija activists assumed that one educational workshop on the site of landfill Beljavine was more fruitful, and that people involved would learn even more about streams of waste and people's consumerism, stop being prejudiced about waste separators in general, and start thinking more "green."

The workshop consisted of 3 main parts:

- Sorting of collected recyclables - paper, glass, plastics on the site
- Shredding of the collected bio-waste (garden waste)
- Overall analyzation of the project, collecting of data and identifying of the main issues



Shredding of collected garden waste

Because of very unpredictable winter conditions in the area, some citizens started to cultivate their gardens earlier and some a bit later. Therefore the organization of only one activity wasn't possible in the street. However, in arrangement with the municipal company, we organized a separation of garden waste when it comes on landfill. There were no special obligations, just pulling out the garden waste out from all other waste, and putting them in a separate place. Workers collected around 100 kg of garden waste, mostly brushwood and some other green waste.

After the selection of recyclables, activists started to shred the garden waste. Activists cut the big branches of trees, separated leaves, dry grass, or flowers, and took them to a special plateau for organic composting.



Follow up study visit to City of Cakovec

On 14th of October, project coordinator and another Zelena akcija representative visited the City of Cakovec in order to learn about sustainable waste management practices, as Cakovec is the only city in Croatia using a fully integrated door to door approach for separate waste collection. Firstly we visited the Senkovec village where there was collection day for recyclables. We saw similarities between Cakovec and Vrbovec, but compostable waste in Cakovec was collected on the streets, too. It was visible that all the citizens are contributing to the project and using the system efficiently.



Photo: residuals and recyclables



Photo: compostable materials

After the visit to residential places, the waste collected was brought to the landfill centre called Totovec, where also the sorting facility is located. The sorting facility employs 8 people who can clean, sort and pack 3 tonnes of dry recyclables per day. Since the recyclables quantities are rising from day to day, the municipal company Cakom has already ordered a bigger and more sophisticated facility. The first sorting facility would perfectly fit proposed Vrbovec waste management centre.



Photo: sorting facility



Photo: materials waiting for sorting

Additional activities on the landfill include additional machine sorting of waste where extra materials are sorted instead of being landfilled.

Impact on Target Groups:

City officials have learned about successful waste management strategies and projects through participation in seminars and workshops, which significantly increased their capacity and knowledge on this topic. Local government was especially targeted through personal meetings as their in-depth understanding of the waste issue and positive cooperation is one of the keys for successful waste strategies. Other local authorities were separately targeted through the implementation of the pilot project as the positive results and easily accessible design data were easily transferable to other regions and cities.

Komunalac Vrbovec management has learned about successful waste management operational and organizational activities, which leads to operational costs minimization, by participating in seminars and workshops. Waste companies were targeted especially through the pilot project activity as their role in implementation required certain operational and organizational improvements. Numerous meetings with the municipal company have been held, as our communication was established on weekly basis. The responsible person in the company is executive managers substitute Ms. Jasna Cvok, who project coordinator Tihana Tarandek met at least once a week.

Residents were targeted mainly through pilot project activities but they were also invited to participate in seminars and workshops. All the pilot project activities depended on citizens' involvement and participation so besides the daily usage of the system, citizens were targeted through educational materials such as leaflets, and the project's "Facebook website," where they significantly increased their knowledge on waste recycling practice and impacts of their involvement

Impact on target policies:

At the moment no visible effects have been noticed, as the local waste management plan hasn't been prepared. It is not sure whether the plan will be prepared soon so our efforts will have to be followed up carefully.

Outreach to stakeholders:

As stakeholders, citizens were engaged directly into the project, due to their activity of waste separation in their homes (door-to-door collection system). Also, citizens were target groups due to the education and awareness-raising activities in workshops and by educational materials.

As stakeholders, local authorities and the municipal waste company "Komunalac Vrbovec" were involved in the project by accepting the ideas of NGOs, and co-financing the whole project.

Also, they were directly engaged in implementation of project, since Komunalac Vrbovec transported the separate collected wastes to the landfill. As target groups, local authorities and the municipal waste company significantly increased their knowledge on sustainable waste management system and positive practices.

As stakeholders, Vrbovec youth organization (VUM) was directly involved in project implementation by activists who were working on the project. As target groups, VUM not only increased their knowledge and awareness about waste, but opened their own re-use center focused on collection of unused items from citizens (clothes, books, furniture) and sharing them among socially sensitive populations.

Follow up is possible in terms of similar project activities, such as separation of different types of wastes, or starting a bigger re-use center with all mentioned stakeholders.

Deliverables, outputs and/or products:

1. Waste recycling instruction (45 copies) – handed out to pilot project citizens and decision makers
2. 3.500 blue colored bags for separate paper collection with printed instructions
3. 3.500 blue yellow bags for separate dry recyclables collection with printed instructions
4. Project notification leaflet
5. 50 Lecture poster
6. Powerpoint presentations from the lectures and meetings
7. Photo and video documentation
8. Opening of Re-use centre

After the project came to its end, and all of the recyclables were collected, 12 activists from Zelena akcija and VUM started to separate recyclables by their fractions- paper, plastics, glass and metal. After the separation, activists measured final amounts:

paper: 465,375 kg
glass: 65, 700
plastics: 71,175 kg
metal: 27,375 kg
TOTAL: 629,625 kg of collected waste.

The weight of the waste in ordinary cases isn't so necessary, as much as volume of the waste because of the space saved on landfills. This pilot project saved around 18m³ of space on landfill.

Communication efforts:

Zelena akcija already has good experience with communicating its activities to the general public, but when coming to positive projects – media interest for such is miserably low compared to our protests and negative project campaigns. The communication of this project will however continue in the future as its nature is to promote the results more than the activities themselves.

Please see the photo materials throughout this report.

<http://www.slatina.net/?p=5247#more-5247>

<http://www.facebook.com/pages/reUSE/192439921972?ref=ts#!/pages/reUSE/192439921972?v=wall&ref=ts>

<http://www.facebook.com/pages/Odvojeno-sakupljanje-otpada-Vrbovec/316827770506?ref=ts>
www.sustainableeufunds.org/files/documents/40.pdf

<http://www.sustainableeufunds.org/?menu%5B%5D=case-studies&menu%5B%5D=8>

Radio Vrbovec and OTV television report of the project.

NGO Recommendations for next steps:

Lessons learned from this project will be applicable for future cooperation between environmental NGOs and local governments and its enhancement of waste management in Croatia, but also in other countries, in terms of how we have achieved results. The recycling scheme will be used after the project ends for the future, which will lower the costs of the public contribution for new systems establishments.