

3R Portfolio

Country: Italy

1 - Good Practices to Promote the 3Rs -

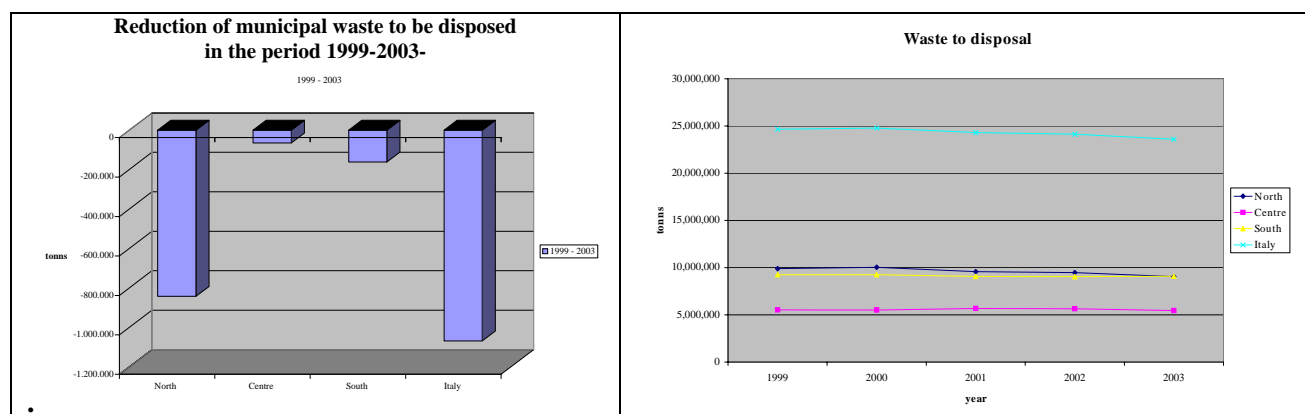
Major Activities

1. Promotion of Measurement (Indicators and Targets) to Establish a Sound Material Society in a Comprehensive and Planned Manner

- The Legislative Decree n. 22/97 "Implementation of directive n. 91/156/CEE about waste, Directive n. 91/689/CEE about hazardous waste and 94/62/CE about packaging e packaging waste" has been issued on 5th February 1997. It has been the framework law on waste for Italy for several years. Some good results were achieved, but many problems occurred as well. At the end of 2004, law 308/04 gave to Government the delegation (the powers) to rationalize and simplify most of environmental legislation. In particular the former waste decree must be revised introducing the principles of free competition among private companies in the management of urban waste, moving from a former prescriptive approach to a performance approach: The new rules will be written in the next few months, and will enter into force before the end of year 2005.

In the last few years the Italian Government has adopted all the European Directives (landfills, end of life vehicles, waste from ships, incinerators) and is adopting in these days the Weee (Waste Electrical and Electronic Equipment) and Rohs (Restriction of Hazardous Substances) directives. New rules were also designed for hospital wastes, asbestos waste and waste transport. After years of delay, the Italian situation is now in-line with the other most advanced OECD countries.

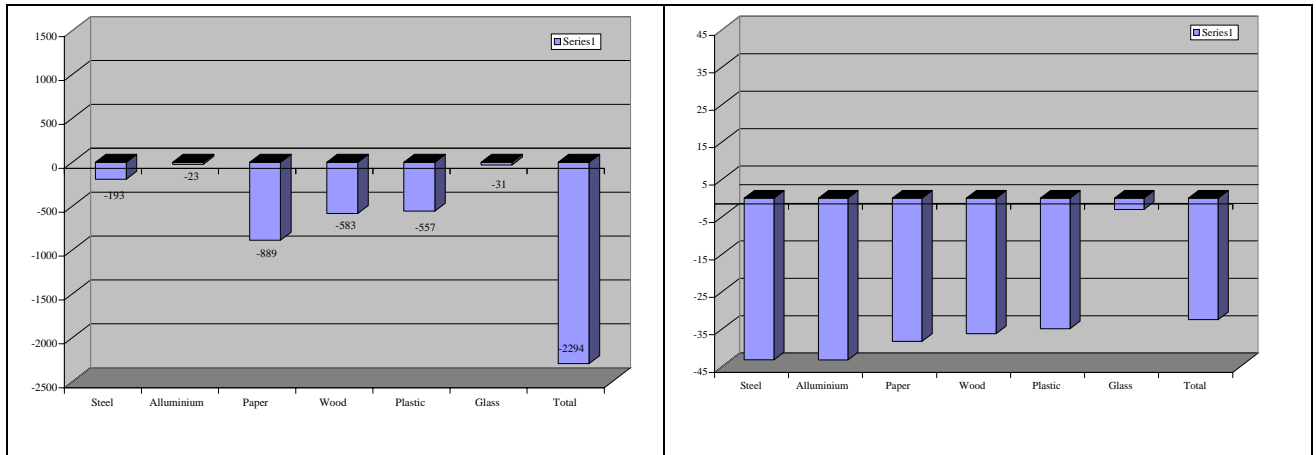
The concourse of the strong reduction of the increase in waste production, and the increase of separate collection, produced a strong reduction of the waste do be disposed, as can be seen in the following tables.



The present legislation, defined the Packaging National Consortium (Conai) to ensure recovery and recycling of packaging materials. CONAI has 14,000 industrial and commercial firms membership, and its activities are based on the principle of "shared responsibility" among companies, administrations and citizens. CONAI manages packaging waste to carry out the "polluter-pays-principle" and the "producer responsibility principle". In the revision of the Italian WFD (Waste Framework Directive), the role of Conai will be transformed, reducing one of the most important negativities, that is the development of separate collection only in some areas of the country; the goals stated by the packaging directive were reached on the national level, but a large part of Italy, especially the South, has lagged behind.

In any case, there has been a strong reduction of the packaging waste going to disposal, as can be seen in the following tables.

**Reduction of packaging waste going to disposal in the years 1999 – 2003,
in terms of weight (1000 t) and % of the put on the market**



2. Promotion of Proper Treatment and Reduction of Waste

For packaging waste, the targets of recovery and recycling set in 1997 to be reached within 2002 were:

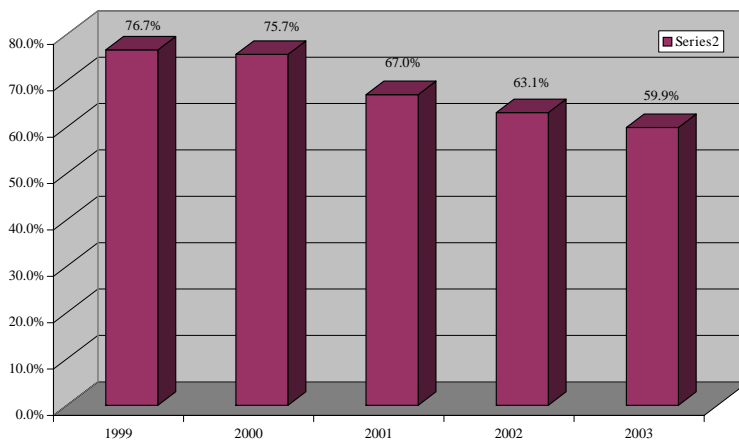
	<i>Objectives</i> <i>Min</i>	<i>Objectives</i> <i>Max</i>
a) Packaging waste to be recovered as material or energy	50%	65%
b) Packaging waste to be recycled	25%	45%
c) Each packaging material to be recycled	15%	25%

Italy reached all the targets, even if it was done at different levels in the different parts of Italy: lower results achieved in the South will be corrected thanks to delegation law 308/2004.

- The Legislative Decree n. 36/03 (13th January 2003) “Implementation of the directive 1999/31/CE on the landfill of waste” fixed a reduction to 173 kg/year per head for the amount of biodegradable waste going to landfill; this goal was already reached in 2002 (163/kg/inhabitant/year) 6 years before the target year 2007 (with a reduction of the bio-waste going to landfill compared to 1995 of 32% , a much higher performance than the one stated by the EU Directive, 15%).

The landfill disposal was also strongly reduced, as can be seen in the following graphic; these results come out the two pathways of the increase in separate collection and the reception of the Directive, that was adopted overcoming the retards produced by the un-effectiveness of the former Government.

Reduction of waste going to landfill 1999-2003



3. Promotion of 3R Considerations in Product Design and Production Stages

In this area, some relevant initiatives concern:

- The Eco-prize to design high environmental compatibility packaging and to use raw materials recycling, in particular for cellulose;
- Information campaigns to increase the packaging market: eco-packaging gallery, eco-packaging supply/offer system.

Many of the most important international and Italian companies have undertaken in the recent years actions aimed at reducing waste production; some examples:

R for reduction of packaging material:

- Kinder (Easter eggs): in 2003 the shape and design of the paperboard product support and packaging has been optimized, reducing substantially the use of raw material;
- Melegatti (“Panettone” – traditional Christmas cake): the packaging has been re-designed reducing drastically weight and volume compared to the past;
- Barilla (Sauces): in 2001 a restyling programme of the packaging lead to an important reduction of the glass pot weight.

R for reuse through the adoption of recharging systems:

- Finiper (Silos Project): in 2000 it introduced washing powder distribution systems based on refillable packages and on draft systems in supermarkets. The refillable package can be used from 20 to 30 times. The project was experimented in a limited number of stores in the 2000–01 period, and then extended to all the company networks.

R for recycling:

- Saviola Group leads the Italian production of the “ecological panel”, made from 100% recycled and regenerated wood and used to satisfy qualified requirements of furniture producers and internal building sector. The production is around 1.500.000 m³, that is 1.020.000 tons per year.

4. Promotion of Green Purchasing

The Decree 203/2003, in application of the Law 448/2001, states that public bodies and companies with prevailing public capital are required to buy at least 30% of goods made of recycled material. This means that the implementation of the rule is not limited to the public administration, but applies also to many companies, including e.g. ENI, public utilities and many others.

Separate collection and recovery operations are not finalised, and may result unuseful and expensive if there is no market for the goods made of recycled material.

The goal of the decree is to create a market for recycled goods: this includes traditional materials, as paper, C&D waste, textile and metals.

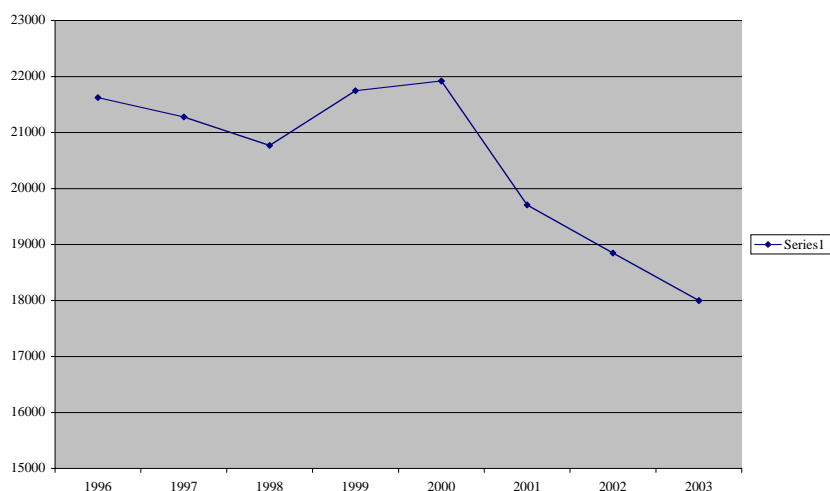
A Public Register has been established where producers can insert their production, and where all the companies and public bodies concerned have to find at least 30% of their supply.

The decree implementation is starting with the definition of the technical aspects of the recycled materials and goods. At present, four “ordinances” for the 30% implementation have already been issued: in the field of textiles (traditionally recycled in Italy since the XVI century), paper, wood and plastics. The sector of biowaste and biological treatments is developed in these days.

5. Economic and fiscal tools for prevention

The most important economic tool for the reduction of wastes to be disposed is the tax on landfills that has been applied for several years.

The use of the landfill tax and the setting of new rules, as the reception of the landfill directive, resulted in a strong reduction of the waste to be disposed, as shown in the following figure.



6. Promotion and implementation of Voluntary Action Plans by Industry

Some Voluntary Agreements have been launched about specific waste components: wood ties impregnated of toxic substances, pesticide products packaging, toners for printers and photocopiers, dismissed telegraph poles, disposable mono-use cameras.

A large number of Voluntary Agreements are run at regional and local level, e.g. for agricultural waste, inert waste (discards of building materials), quality compost and used domestic appliances.

7. Promotion of advanced Urban and Community Development in Harmony with the environment

To carry out the Waste Management Regional Plans, Local Administrations must define Local Plans for Separate Collection.

In the field of Local Agenda 21 (LA21) processes, the waste reduction, recycling and good management is an usual issue; many Local Fora are involved in these processes.

The Italian Administrations that signed the Aalborg Chart are 756.

The Ministry of Environment promoted the dissemination of LA21 funding specific projects.

Between 2000 and 2002, funds amounted to 25.9 M€ and involved 226 Local Administrations.

8. Promotion of Environmental Education

The Ministry of Environment, in 1996, set up the National System of Information and Environmental Education to provide for the establishment of a network with regional and municipal agencies for information and environmental education.

In this area some national projects of information and communication about waste are worth while mentioning as best practices:

- “Separateli” (“Separate them!”)
- “L’Italia che ricicla” (“The Recycling Italy”)

The Regional Agencies for Environmental Protection (ARPAs) developed several initiatives of communication and information at local level, targeted for operators and citizens in the field of urban and industrial waste.

9. Consortia for exhausted oils and lead batteries

A positive experience comes from two Consortia born for the recycling of exhausted oils and vehicles lead batteries.

Coou, the exhausted oils consortium, has increased its collection from 44 to 202 thousand tons between 1984 and 2003, increasing the share of “collected to sold product” from 8 to 35%. If the percentage of exhausted oil which is burned during consumption is taken into consideration, a satisfactory 90% target has been achieved. Also considering its capacity to fulfil the European Directives requirements, Italy can be considered a best practice in this domain.

Coou's activities are financed by a special contribution to the Consortium (the rate has grown from 3.5 € in 1984 to 53,50€ in 2004 per t introduced in the market). All producers and importers have to contribute to the Consortium; but the collection itself is free and the Consortium is non-profit.

Cobat, the lead batteries consortium, has increased its collection from 135 to 192 thousand tons between 1991 and 2003. This is considered to be a 100% achievement.

Cobat activities are financed by a special surcharge applied on each battery sold to the public. Cobat also is a non-profit consortium entrepreneurially managed. It must ensure the collection, stocking and recycling of lead batteries, or an environmentally compatible elimination when recycling is not economically viable. All involved sectors are part of the consortium: producers and importers, retailers, collectors and recyclers, under the supervision of the Ministries for Environment and for Production Activities

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2 - The Integrated Waste Management System in Province of Cremona



The Province of Cremona is placed in Lombardia (North-Italy), 1770 Km², it is composed by 115 Municipal administrations and 336.718 residents
In 2003, the main indicators of Integrated Waste Management System are:

- separate collection: **52,0%**;
- reduction of (non separately collected) waste from **94.256 tons in 2002** to **83.822 tons** in 2003;
- increase of waste used for energy recovery from **27.994 tons in 2002** to **57.119 tons** in 2003;
- **83%** of total waste are recovery or recycling (52% is recycled, 31% used for energy recovery).

These performances have not entailed a rise of cost to manage the waste; the average cost of waste management in the Province of Cremona is lower than the average cost of Lombardia and North-Italy.

The Integrated Waste Management System (IWMS)

The Province of Cremona IWMS is completely self-sufficient: the waste produced in the Province are managed and recovered into the provincial territory.

The IWMS is characterized by:

- 1 incinerator with energy recovery with a throughput of 225 tons/day linked to vapor and hot water network for dwellings;
- 1 treatment plant to recover biodegradable waste (organic and “green” waste material) with a throughput of 20.000 tons/year;
- 115 cities and towns involved in the waste collection;
- 115 ecological platforms to manage (collecting, separating, packing, sending) the waste materials;
- 1 landfill.

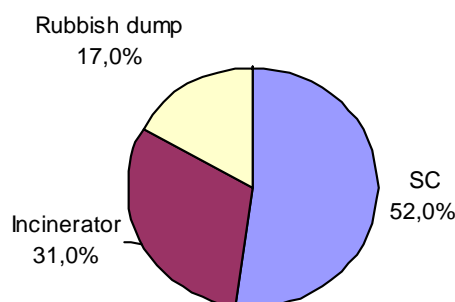
The Waste Management Provincial Plan (1993) was defined and implemented involving stakeholders and citizens. In the process to review the Provincial Plan (2001), the IWMS was subject to SEA (Strategic Environmental Assessment) to define the technical and managing options to ensure a lower environmental impact.

The urban waste production

In 2003 the urban waste production in the Province of Cremona was of **169.000 tons**, with an increase of **0,5%** compared to 2002. The average per capita per year is **499Kg.**, per day it is **1,37 Kg.** per head

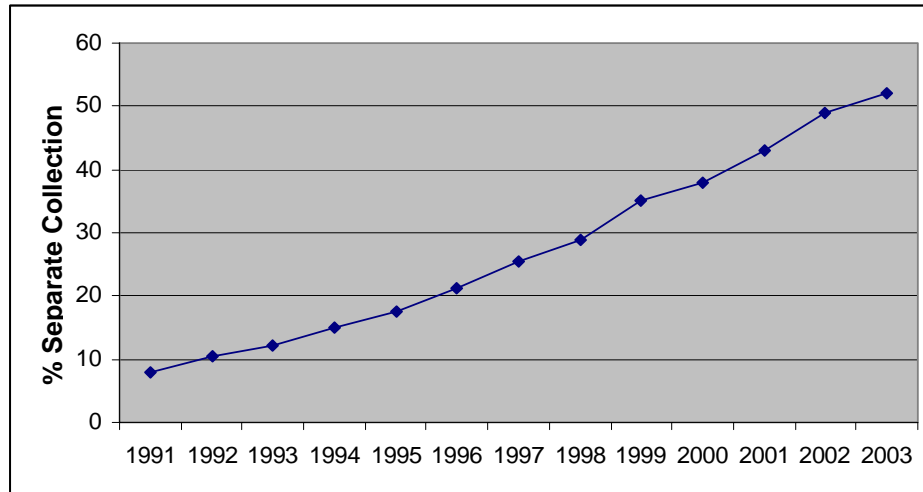
The waste management in the Province of Cremona

In 2003, 52,0% of waste are directed to recycling, 31,0% to energy recovery; only 17,0% of the waste are address to landfill.



Separate Collection

Separate Collection (SC) in 2003, for the whole provincial area reached **52,0%**. The per capita SC was 252 Kg. In 1991 the SC was about 7,5%.



The waste materials with high collection level are: paper, glass, biodegradable waste, plastic, wood, iron.

The fiscal leverage

The Province of Cremona set up a charging system, finalized to give a prize to the Cities and Towns that reach the best performance in SC.

The Cities and Towns that do not reach the targets of SC fixed, must pay an additional rate to leave the undifferentiated (non separate) waste to incinerator with energy recovery and landfill.

Environmental Education

Some innovative projects are:

- “The adventures of Dump & Dry”, realized in the years 2002-2003, for the primary and secondary school;
- “Okkio all’imballo!” (“Look at the emballage!”), a campaign aimed to reduction and recovery of packaging waste, oriented to supermarkets and consumers to inform, promote sensitivity and give a sense of responsibility on the waste issue.

Website

www.provincia.cremona.it/servizi/ambiente/rifiuti/