WASTE PREVENTION: TOWARD PERFORMANCE INDICATORS PROCEEDINGS OF AN OECD WORKSHOP

EXECUTIVE SUMMARY

Waste prevention is an important element of sustainable development.

Waste management issues are at environmental centre stage in many countries, and waste prevention and minimisation objectives are increasingly embraced by OECD and other governments as important elements of their sustainable development strategies.

... but results achieved so far remain limited ...

Despite achievements in waste recycling, amounts of solid waste going to final disposal are on the increase as are overall trends in waste generation. This raises important questions as to the capacities of existing facilities for final treatment and disposal and as to the location and social acceptance of new facilities. Hazardous waste is of particular concern since it entails serious environmental risks if badly managed.

... and are difficult to assess.

Hence the need to step up measures for waste prevention and minimisation, and to move further towards life cycle management of products and extended producer responsibility. Current experience in OECD countries also highlights the need for better factual information about waste and material flows and for appropriate measurement tools to assess the performance of waste prevention efforts. In this context, indicators play a vital role for providing policy feedback and promoting accountability.

Widely accepted waste prevention indicators hardly exist.

In the 1990s, environmental and sustainability indicators have gained in importance in a number of OECD countries, and a very wide variety of indicators are already in use. They are used in planning, clarifying policy objectives and priorities, budgeting, assessing performance, and communicating with the public.

It is thus somewhat of a paradox that there are no widely accepted indicators for tracking waste prevention, and that relevant data are generally lacking. The well-known adage "what does not get measured does not get managed" holds particular relevance here.

The OECD Workshop on Waste Prevention Indicators ...

The OECD “Workshop on Waste Prevention: Toward Performance Indicators” (Paris, 8-10 October 2001) addressed this measurement issue. It was organised jointly by the OECD Working Groups on Waste Prevention and Recycling and on Environmental Information and Outlooks, and brought together over 80 participants from 23 Member countries, the European Commission, international organisations, research institutes, industry and non governmental organisations.

... reviewed current experience and discussed ways to progress at OECD level.

The workshop, chaired by Mr. Yuichi Moriguchi (Japan), discussed ways to develop indicators able to measure waste prevention performance, building on experience in OECD Member countries. Participants reviewed the strengths and weaknesses of various initiatives and identified areas for joint progress at OECD level. Particular emphasis was given to frameworks for developing indicators and underlying data sets, and to concrete actions for analytical and development work by the OECD.

A survey, carried out in preparation for the workshop revealed a growing number of national and sub-national indicator initiatives, among which: the US EPA "indicator for source reduction of municipal solid waste" and the "household waste barometer" developed for the Brussels-Capital Region. It also showed great variations as regards target audiences, methodologies applied, data requirements and resource implications.
Among the obstacles to a wider development of waste prevention indicators are the diversity of the various efforts, the lack of consensus about common approaches and the difficulty in mobilising relevant data sets. Overcoming these obstacles and elaborating waste prevention indicators for use in international work is a challenge.

The workshop discussions confirmed a strong demand for waste prevention indicators complementing other environmental and sustainability indicators. It was felt that existing waste indicators, which address recycling and landfill diversion, while necessary, do not provide a sufficient basis for evaluating waste prevention efforts and for supporting the development of quantifiable waste prevention targets. Discussions also made clear that waste prevention indicators must be viewed together with associated policy objectives and targets, while keeping in mind broader sustainable development goals.

Building on the earlier OECD work on waste minimisation and prevention and on experience in developing and using environmental indicators in country environmental performance reviews, participants agreed to use the OECD Pressure-State-Response (PSR) model for constructing a taxonomy of waste prevention indicators:

- **Pressure indicators** reflecting both direct pressures such as “total waste generation” or “waste hazard” and indirect pressures such as “Total Material Requirement” or “Direct Material Input”, derived from Material Flow Accounts (MFA), and lending themselves to be plotted against drivers (GDP, private consumption, population, etc.).
- **State indicators** reflecting waste related impacts on air, water and soil quality.
- **Response indicators** reflecting societal responses such as introduced regulations and plans or expenditures for waste prevention.

It was recommended to use the PSR model in conjunction with an accounting tool, such as MFA, to monitor waste and related material flows and to establish a consistent quantitative basis from which waste prevention indicators can be derived. Short term work is expected to dwell upon municipal waste.

The workshop resulted in a series of recommendations, including short term actions for analytical and development work by OECD:

- assessing economic drivers of the amount and/or hazard of waste generated (such as GDP, private consumption, government consumption, population, sector-based employment) and constructing trial indicators on “pressures” and “responses” using available OECD and Member country data;
- reviewing and selecting sample indicators of common relevance for OECD use;
- devising and implementing information exchange mechanisms concerning Member countries’ experience in the development, use and interpretation of data on waste generation and material flows.