

Chemical Action Plan

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The prioritisation of chemical management action needs to be based on informed decision making. As such, a first step must be the adequate and comprehensive monitoring of chemicals in the environment and the human population. It is only with a dynamic spatial monitoring and feedback system that a rationale for action and the political will to address urgent chemical issues can be achieved.

Assessment of chemical substances and usage requires:

- follow-up and monitoring data, product tracking / feedback loop. (eg full implementation of NPI legislation, environmental monitoring database).
- policy consistency with the three underlying principles (precautionary principle, inter-generational equity, biological bio-diversity)
- full stakeholder participation / valuing of lay knowledge / epidemiology
- acknowledgment and research agenda for combined chemical impacts (additive, synergistic, antagonistic)

Use reduction requires:

- information on chemical volumes and usage
- legislative establishment of use reduction targets, eg NSW Pesticides Act reform
- integrated management systems eg Integrated Pest Management (IPM)
- consumer education for household use/ products impacts/ waste generation
- legislative requirement for full labelling of products, product information
- pre notification / sign-posting for use
- emergency plan community panels
- policy of least hazardous product

Substance recovery, reuse and recycling programs require:

- ownership of waste /waste streams / cradle to grave responsibility
- full environmental costing of waste disposal methods
- financial incentives for cleaner production / away from a disposal mentality
- public education programs - domestic waste/recycling , disposal costs and environmental impacts
- recycling subsidies (if required) to account for long term costs of landfill

Remediation requires :

- public register / inventory of contaminated sites

- contaminated land policy based on ‘multifunctionality’ not ‘fit for use’ risk based prescribed remediation target levels
- public involvement in risk / clean-up options
- active encouragement of acceptable technologies based on ‘world’s best’

The management of toxic chemicals into the 21st Century must address existing and new chemicals as well as the issues of environmental, occupational and public health impacts, food and water contamination, hazardous waste and contaminated sites. As such, a fully integrated management approach is necessary, based on a life cycle analysis and a ‘cradle to grave’ approach.

The basis of this is the provision of adequate life cycle chemical information. Yet, the introduction of the essential reporting mechanism for industrial emissions through the National Pollutant Inventory has been stalled (once again). We have been reliably informed that pressure applied by the NSW government at the recent meeting of the (inappropriately named) National Environment Protection Council resulted in a decision not to implement the NPI until 2002.

While opposition continues to the provision of basic rights to information on industries’ releases to the environment, the design of a chemical action plan may be premature. Similarly, while the NSW Government continues to pursue a technical risk based approach to chemical management, we would argue that the significant external costs of feeding the risk assessment model outweighs the benefits to human and environmental health.

Instead, we strongly recommend a chemical action strategy based on the overriding principles agreed to in the Agenda 21 and delivered through active community right to know and capacity building programs.

The chemical action plan would need to address :

- information provision and community capacity building
- modifications to chemical assessment process
- chemical use reduction,
- substance recovery, reuse and recycling
- land/water remediation

To implement this strategy would require considerable changes in industry, society and political thinking and would need to be based firmly on active public support.

One Current Model - Massachusetts Toxics Use Reduction (TUR) Program

The U.S.EPA through its Toxic Release Inventory (TRI) provides community right to know access to chemical emission information on over 650 chemical substances. Since the TRI introduction in 1986, information on company’s emission under State and regional categories has been released on CDROM for community access and also

provides the basis for interactive community information systems delivered through web technology. The provision of this information has facilitated community involvement in contentious pollution and risk issues as well as educating the public about the consequences of their personal chemical use patterns.

In 1989, the State of Massachusetts legislature unanimously passed the Massachusetts Toxics Use Reduction (TUR) Program to be run by their Department of Environment Protection (1).

Companies using over prescribed amount of a listed hazardous chemical must report their use quantity and pay a proportional fee to the Department of Environmental Protection. The data is then released to the public in an annual report. Companies are also required to prepare a toxic use reduction plan on how they will reduce or eliminate these chemicals from their processes. The fees collected are used to fund government programs implementing the Toxic Use Reduction Act which include the:

- Office of Technical Assistance, providing workshops, forums and non-regulatory confidential technical advice to firms;
- TUR Institute at the University of Massachusetts providing education, training, research, and specialist laboratories;
- Toxic Use Reduction Networking Program encouraging community involvement and awareness through State grants and
- Toxics Action Centre, a non-profit environmental organisation providing assistance to residents concerned with or in dispute over local environmental hazards. The centre produces "toxic profiles" for communities based on information from the Department of Environmental Protection. Maps of industries' emission for each individual community or region are also produced by the Department. These geographic analysis are combined with press releases and interviews with the Centre's staff and community representatives, to promote discussion and present the facts regarding the use of toxic chemicals in any region of Massachusetts.

The program has up to 40 staff supporting and capacity building the local community in their campaigns for pollution reduction. Program Director, William Panos claims that the Massachusetts Toxic Use Reduction Program has reshaped the relationship between State environmental agencies, industry and the community (2).

Panos commented that the outcomes of this new relationship has been:

- a decrease in the State's generation of hazardous waste,
- a decline in the amount of toxic chemicals used with no increased cost to industry
- and a more involved, aware and educated public.

While the Toxics Use Reduction Program (TURP), aimed for a 50% reduction in toxic waste from 1987 to 1997, reductions in total use of toxic chemicals (19%), byproducts generated (14%) and releases to the environment and sewer (8%) were achieved.

Chemical action plan – conceptual framework

Through its adoption of Agenda 21 at the 1992 United Nations Rio Conference on Environment and Development, Australia agreed to base its chemical management on the principles of ecologically sustainable development. This was translated into the Council of Australian Government's Inter-governmental Agreement on the Environment and the subsequent publication of the National Strategy for Ecologically Sustainable Development.

The Inter-Governmental Agreement on the Environment (IGAE 1992) sets out the abiding principles, which should form the overriding policy framework for Sydney's Chemical Action Plan; the Precautionary principle (3), the principle of Inter-Generational Equity (4) and the conservation of biological diversity and ecological integrity (5). The adoption of ESD principles have been included in Australia's national strategies for chemical management (6) and are reported under Chapter 19 of Agenda 21.

Community involvement and ownership of decisions

Without informed community participation, crucial chemical management decisions may never gain community ownership and will continue to be debated and challenged for years. Similarly, without active community support, governments fail to find the political will to introduce the necessary legislative controls on industrial activities and consumer consumption. As pressure on the environment grows, society will need to make harder and harder environmental decisions, which will have direct consequences for the community and industry. Collective ownership of these difficult decisions is the only way that we will be able to respond with sufficient speed and effectiveness to adequately protect our environment and life support systems.

It is both unreasonable and naïve to expect an informed community debate regarding complex and technical chemical management issues without putting resources and time into community capacity building and real participation in the decision making process. Ownership of a process and outcomes by a range of stakeholders is a powerful adjunct to any policy development.

Internationally, empowerment through information delivery was accepted through the adoption of Agenda 21. Developed countries committed to provide 'technology transfer' and to the sharing of chemical and scientific data to improve the chemical management of developing countries. While, the Australian government committed to this through international chemical management programs (eg Basel Convention) (7), at a national level, little has been done to provide its own citizens with the same privileges.

In comparison, over the same period, the United States has implemented and expanded Community Right to Know (8) legislation and developed community information repositories to maximise public involvement in disputes over toxic waste sites, treatment facilities and factory emissions. More recently, independent environmental researchers funded by the US Government have developed software (9) to assist community groups

assess and validate risk assessment procedures. This represents significant 'capacity building' in the community's assessment of technical data and risk factors in pollution disputes.

In 1995, the United Nations Commission on Sustainable Development, prepared Chapter 40 of Agenda 21, "Information for Decision Making". The United Nation's information provider, Earthwatch has stressed the need at a national level for continuing emphasis to be placed "not only on the access to data but also on developing the capabilities to collect, analyse, apply and disseminate data at the national and local levels." (10)

The Australian Government has acknowledged the need for an adequate environmental information base and to a small extent has reflected this in a national 'coastcare' (11) program. The limited program aims to provide information access to the community and decision makers involved in coastal policy and to implement capacity building initiatives to allow the information to be used in the most productive manner. (12)

The recent Fourth Ministerial Conference on the "Environment for Europe" June 1998, submitted a "Resolution on Access to information, Public Participation in Decision Making and Access to Justice in Environmental Matters". The resolution stresses the important role that information access and capacity building has in public participation in environmental decision making and the advancement of ESD principles. While, this convention has been signed by 35 environment ministers within the UN Economic Commission for Europe, it invites other members of the United Nations to accede to the convention.

References

1. Panos, W., "Massachusetts Department of Environmental Protection Toxics Use Reduction (TUR) Program, Overview." OECD International Conference on Pollution Release & Transfer Registers, PRTRs : National and Global Responsibility, Sept.1998 Tokyo, UNEP Chemicals and UNITAR

2. Pers. Comm., W.Panos, 11.9.98

3. 3.5.1 Precautionary Principle - Where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

In the application of the precautionary principle, public and private decisions should be guided by: careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment; and an assessment of the risk-weighted consequences of various options.

4. 3.5.2 Intergenerational equity - the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.

5. 3.5.3 Conservation of biological diversity and ecological integrity - conservation of biological diversity and ecological integrity should be a fundamental consideration.

6. 1993 National Strategy for Management of Scheduled Waste & 1998 National Strategy of Agricultural and Veterinary Chemicals.

7. Through Australia ratification in February 1992 of the Basel Convention on the Control of Transboundary Movements of Hazardous Waste and their Disposal, it committed to transfer of technology and access to information to promote environmentally sound management of waste (Article 10, Section 2a,2d) . This has translated into capacity building programs and the funding of Regional Centres in China and Thailand for training and technology transfer.
8. Green, J.,Duba, G.,and Wxner, B., "Citizens Groups : Environmental Decision-Making Will Never be the Same" Environmental Regulations, Compliance & Liability, pub. Uni. of NSW, Feb.1992 at 3
9. Hampshire Research Institute, RISK*ASSISTANCE for Windows, Version 1.1, 1995
10. UN System-Wide Earthwatch Website "Earth watch and Agenda 21, Information for Decision-Making" UN system-wide Earthwatch Coordination, UNEP, Updated 12 February 1998 at 1
11. Commonwealth Coastal Action Program under the Commonwealth Coastal Policy 1995 has implemented capacity building initiatives and community information access as part of a program of cooperative action.
12. Natural Resource Aspects of Sustainable Development in Australia "Oceans and Coastal Areas" Information provided by the Government of Australia to the 5th-6th Session of the United Nations Commission on Sustainable Development 1st June 1998 at 30