

## NOTICE

Study conducted by a consultant appointed by the Secretariat of the Basel Convention in November 2002, before the sixth meeting of the Conference of the Parties in December 2002. Due to unavoidable circumstances, the consultant was only able to finalize the study and deliver the report in July 2003. This information is put on the website for information purposes only.

# Basel Convention Study on Annex VII Issues (Phase 2)

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## 1. INTRODUCTION

The study has been commissioned by the secretariat of the Basel Convention to look into the capacity building needs of developing countries in implementing environmentally sound management of hazardous wastes they generate and in ratifying the Ban Amendment (Decision III/1) in the context of the Basel Convention.

It is recalled that the objectives of the Basel Convention are to set up obligations for State Parties with a view to:

- (a) reducing transboundary movement of wastes subject to the Basel Convention to a minimum consistent with the environmentally sound management of such wastes;
- (b) minimizing the amount and toxicity of hazardous wastes generated and ensuring their environmentally sound management (including disposal and recovery operations) as close as possible to the source of generation;
- (c) assisting developing countries in environmentally sound management of the hazardous and other wastes they generate.

The objective of the Ban Amendment is to ban hazardous waste exports for final disposal and recovery from Annex VII countries to non-Annex VII ones. Annex VII countries are Basel Convention Parties and other States which are members of the OECD, EU, and Liechtenstein while non-Annex VII countries are the other Parties to the Convention.

## 2. TERMS OF REFERENCE FOR THE STUDY

The aim of the study is to evaluate the means of implementing paragraph 21 of the preamble to the Basel Convention to promote assistance (capacity building) to non-Annex VII countries for the sound management of hazardous wastes and other wastes generated in their countries including the provision of technical and financial assistance. Paragraph 21 of the preamble to the Basel Convention states, "Recognising the need to promote the transfer of technology for the sound management of hazardous wastes and other wastes produced locally, particularly to the developing countries in accordance with the spirit of the Cairo Guidelines, and decision 14/16 of the Governing Council of UNEP on the Promotion of transfer of environmental protection technology."

It is noted that other than paragraph 21 of the preamble, Article 10 paragraph 2(d) of the Basel Convention called on Parties to cooperate in the transfer of technology and management systems related to the environmentally sound management of hazardous wastes and other wastes while Article 14 paragraph 1 states that the Parties agree to the establishment of regional or sub-regional centers for training and technology transfer regarding the management of hazardous wastes and other wastes and the minimization of their generation. This confirms the understanding that one of the main objectives of the Base Convention is to assist developing countries to implement environmentally sound management.

Historically, the Cairo Guidelines and Principles For The Environmentally Sound Management Of Hazardous Wastes were adopted by a UNEP Governing Council decision 14/30 on 17<sup>th</sup> June 1987. The Decision led to the diplomatic conference that adopted the Basel Convention on 22 March 1989. The spirit of the Cairo Guidelines is:

1. To assist developing countries to manage hazardous wastes in an environmentally sound manner
2. To promote transfer of technology relating to environmentally sound management of hazardous wastes

UNEP Governing Council Decision 14/16 (18/6/87) on promotion of the transfer of environmental protection technology called for urgent national and international action to control pollution through the use of environmentally sound technological processes and efficient control measures and recognised that knowledge of and access to such technology for many countries, especially for developing countries, is still lacking. Among other matters, the Decision invited the Executive Director of UNEP to consult Governments to identify specific environmental protection technology that is not now available to them, identify the reasons for such unavailability and report to the Governing Council on these matters, with recommendations to relevant bodies to discuss solution to factors impeding appropriate transfer and urged the specialized agencies and other members of the United Nations system dealing with problems of technology transfer to take account in their respective fields of activity of the promotion of the transfer of environmental protection technology.

As a follow up to UNEP Governing Council Decision 14/16 and the reports on the consultations made by the Executive Director of UNEP at the 15<sup>th</sup>, 16<sup>th</sup> and 17<sup>th</sup> UNEP Governing Council sessions and as reflected in Decisions 15/37 (25/5/89), 16/33 (31/5/91), and 17/17 (21/5/93), the Cleaner Production programme initiated by Industry and Environment Programme Activity Centre (PAC) of UNEP has progressively promoted the transfer of environmentally sound technologies since. To-day, national cleaner production centres established in several developing countries have served as an important means for technology transfer.

On the subject of capacity building, Principle 9 of Rio Declaration on the Environment and Development states that “ States should co-operate to strengthen endogenous capacity building for sustainable development by improving scientific understanding through exchanges of scientific and technological knowledge, and by enhancing the development, adaptation, diffusion and transfer of technologies, including new and innovative technologies.” Capacity building is also the dominant means of implementation recommended for the various action programmes that constitute Agenda 21, a blue print for sustainable development adopted at UNCED 1992, specifically the action programme "Environmentally sound management of hazardous wastes, including prevention of illegal international traffic in hazardous wastes" (Chapter 20 Agenda 21 ).

Under Article 10 of the Basel Convention on International Co-operation, paragraph 2(d) also calls on parties to co-operate actively, subject to their national laws,

regulations and policies, in the transfer of technology and management system related to the environmentally sound management of hazardous wastes and other wastes. They shall also co-operate in developing the technical capacity among parties, especially those which may need and request technical assistance in the field.”

At COP 5 (December 1999) there were two decisions on capacity building, this being the first time capacity building is featured in COP decisions. Decision V/6 on “Capacity building activities within the Convention: Training and seminars” requested the secretariat of the Basel Convention to continue developing training programmes, including curricula at the national level in co-operation with national authorities, and organizing national and regional training activities, as appropriate, within the framework of the regional and subregional centers for training and technology transfer on the implementation of the Basel Convention, in collaboration with UNEP and other international organizations, as well as the private sector and environmental non-governmental organizations. It further requested the Secretariat, in collaboration with UNEP and other international organizations, as well as the private sector and environmental non-governmental organizations, actively to contribute to the implementation of the programme of activities of the regional centers by developing training materials, publications and other supporting materials, by facilitating the development of local and regional activities and case studies and by providing resource persons for training courses.

Decision V/6 also requested the Secretariat to continue promoting public awareness in the aims of the Basel Convention through participation in related international conferences, symposia and seminars, through the preparation and publication of brochures, newsletters, leaflets, press releases, case studies and other publications and materials in this field, and through the consolidation of the web sites of the Basel Convention on the internet. It urged the parties to contribute to the Trust Fund of the Basel Convention to assist developing and other countries in need of Technical Assistance in the implementation of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. Established under the Basel Convention, the aim of the Trust Fund is in supporting the activities of developing countries and other countries in need of such assistance and the Secretariat in developing training and capacity building activities, as well as awareness raising activities. It invited all Parties that are in a position to do so to contribute to the trust funds to cover the costs of participation of developing country representatives at meetings and seminars organized by the Secretariat, or to make in-kind contributions, through, inter-alia, the provision of resource persons for the organization of seminars, workshops, and training programmes.

Decision V/7 on “ Capacity building activities within the Convention: Current and planned legal, technical and institutional assistance”, reiterated the importance for Parties to provide financial resources to the Technical Co-operation Trust fund (TCTP) to assist developing countries and countries with economies in transition that are parties to the Basel Convention in implementing the Basel Convention and in managing the hazardous wastes in an environmentally sound manner.

It invited Parties, non- Parties, intergovernmental organisations, members of the industry and business sectors, and non-governmental organizations to provide financial resources or assistance in kind to assist countries in need of such assistance in the development of training activities and technology transfer for the environmentally sound management and control of hazardous wastes. It promoted the development of a programme of workshops to be held on the occasion of the meeting of Basel Convention subsidiary bodies, through a process of exchanging and reviewing information received, from focal points and competent authorities from the different Parties, relating to their experience in capacity building issues and by addressing aspects relating to the implementation of the Convention that need clarification. It also invited Parties, other States and potential donors to contribute financially, technically or in kind to the implementation of specific project activities the conduct of which has been requested by the parties.

COP 6 (December 2002) Decision VI/11 on Capacity Building recognized the need and usefulness for developing and implementing concrete activities that are mutually supportive or complementary in support of the Basel Declaration on Environmentally Sound Management. It requested the Secretariat to continue, subject to availability of funds, promote public awareness on the Basel Convention through conferences, workshops, and preparation of audio. radio-visual and print materials, enhancement of Basel Convention web site and participation in trade fairs and exhibitions at global, regional or national levels.

Decision VI/11 also requested the Secretariat to continue developing training programmes and organising national and regional activities as appropriate on the implementation of the Basel Convention in collaboration with UNEP and other intergovernmental organizations as well as private sector and the NGOs, and reiterated the importance for Parties to provide financial resources to the TCTF to assist developing countries and countries with economy in transition that are Parties to the Convention in implementing the Basel Convention and in managing hazardous wastes and other wastes in an environmentally sound manner.

It invited Parties, non Parties, intergovernmental government organizations, members of the industry and business sectors and NGOs to provide financial resources or assistance in kind to assist countries in need of such assistance in the development of specific capacity building projects, training, information and awareness raising activities.

Environmentally Sound Management of Hazardous Wastes is also the subject matter for the Cairo Guidelines and Principles. Under the Basel Convention, ‘environmentally sound management of hazardous wastes or other wastes’ means taking all practicable steps to ensure that hazardous wastes or other wastes are managed in a manner which will protect human health and the environment against the adverse effects that may result from such wastes.’ The Basel Convention secretariat has also developed an information leaflet on Environmentally Sound Management.

At COP 5 (December 1999) the Parties to the Convention adopted the Basel Declaration On Environmentally Sound Management and Decision V/33 on environmentally sound management. The latter welcomed the Declaration and specified that, for the next decade of the Basel Convention; a number of activities would be undertaken to achieve the objectives of environmentally sound management in nine areas.

COP 6 (December 2002) Decision VI/1 on Strategic plan for the implementation of the Basel Convention (to 2010) adopts the strategic text of the strategic plan and an attached action table comprising short (2003-2004) and mid-to-long term (2005-2010) activities which would be reviewed and amended if necessary, for submission to the Seventh COP meeting.

On actions required by Parties, Decision VI/1 appealed to Parties and other stakeholders to provide financial and other resources, including in-kind support, for the implementation of the Strategic Plan; appealed to recipient Parties and regions to consider including in their development assistance priorities projects that implement the Strategic Plan; and encouraged Parties and other stakeholders to promote the implementation of the Strategic Plan and to cooperate among themselves in this regard.

In other words, the Parties to the Basel Convention have done much work to promote both awareness and commitment on environmentally sound management of hazardous wastes at the highest level.

### **3. METHODOLOGY OF THE STUDY**

The study examines the provisions of the Basel Convention and of the Ban Amendment and the Basel Protocol on Liability and Compensation particularly in terms of Parties' obligations on environmentally sound management. It looks at the 1999 Ministerial Declaration of Environmentally Sound Management and the development of the Strategic Plan for the implementation of the Basel Convention (to 2010) the latter of which "builds on and uses the framework" of the former. Then it studies the national profiles of the ASEAN countries (Those who are parties to the Convention) vis a vis the prerequisites of environmentally sound management of hazardous wastes and other wastes and attempts to evaluate the capacity building (technical and financial assistance) needs of these countries (as a representative group of developing countries) to implement environmentally sound management of hazardous wastes and others. It then appraises the current status of technical and financial assistance provided and planned to be provided by the Basel Convention secretariat particularly through the Regional Centres for Training and Technology Transfer, which are being developed. It then discusses, in the light of the framework of technical and financial assistance provided for and being developed under the Basel Convention, what part could the Parties and other stakeholders play to make the programme more effective in meeting the needs of the non-Annex VII countries. The findings and results of the evaluation (means of implementing paragraph 21) are reported. Recommendations are put forward on the means to implement paragraph 21 of the preamble to the Basel Convention in providing assistance to non-Annex VII countries.



## **4 REQUIREMENTS FOR ENVIRONMENTALLY SOUND MANAGEMENT OF HAZARDOUS WASTES UNDER THE BASEL CONVENTION**

### **4.1 Provisions of the Basel Convention, the Ban Amendment and the Protocol on Liability and Compensation on Environmentally Sound Management of hazardous wastes.**

The following are some of the provisions of the Basel Convention that require the attention of the Parties in implementing environmentally sound management

- (a) Parties prohibiting the import of hazardous wastes or other wastes shall inform the other Parties of their decision pursuant to Article 13. The other Parties, when so informed, shall prohibit or shall not permit the export of hazardous wastes and other wastes to the Parties which have prohibited the import of such waste (Art.4 (1) (a) & (b));
- (b) Parties are to prohibit the export of hazardous wastes and other wastes if the State of import does not consent in writing to the specific import, in the case where the State of import has not prohibited the import of such wastes (Art.4 (1) (c));
- (c) Parties are to prohibit all persons under their national jurisdiction from transporting or disposing of hazardous wastes or other wastes unless such persons are authorized or allowed to perform such types of operations (Art.4 (7) (a));
- (d) Parties are to designate or establish one or more competent authorities and one as focal point. One competent authority is designated to receive notification in case of a State of transit (Art.5);
- (e) States of export shall not allow the generator or exporter of hazardous wastes or other wastes to commence the transboundary movement until they have received written confirmation that the notifier has received the written consent of the State of import (Art. 6(3));
- (f) Parties are to cooperate with each other in order to improve and achieve environmentally sound management of hazardous wastes and other wastes (Art.10)
- (g) In case of an accident occurring during the transboundary movement of hazardous or other wastes or their disposal which is likely to present risks to human health and the environment in other States, those States must be immediately informed. (Art. 13);
- (h) The Convention includes an annex (Annex VI) establishing arbitration procedures for settling disputes between Parties.

The following provisions under the Ban Amendment require the attention of the Parties in implementing environmentally sound management of hazardous wastes.

- (a) Each Party listed in Annex VII shall prohibit all transboundary movements of hazardous wastes, which are destined for operations according to Annex IV A, to States not listed in Annex VII.
- (b) Each Party listed in Annex VII shall phase out by 31 December 1997, and prohibit as of that date, all transboundary movements of hazardous wastes under Article 1(1)(a) of the Convention which are destined for operations according to Annex IV B to States not listed in Annex VII. Such transboundary movement shall not be

prohibited unless the wastes in question are characterised as hazardous under the Convention.

The following are provisions of the Basel Protocol on Liability and Compensation which require the attention of the Parties in implementing environmentally sound management of hazardous wastes:

- (a) The Protocol addresses who is financially responsible in the event of an accident. Each phase of a transboundary movement, from the point at which the wastes are loaded on the means of transport to their export, international transit, import and final disposal, is considered.
- (b) Delegates at the 5<sup>th</sup> Conference of Parties also adopted a decision for an interim arrangement to cover emergency situations until the Protocol enters into force.

#### **4.2 Definition of environmentally sound management of hazardous wastes and information on the subject by the Basel Convention secretariat**

Under the Convention, ‘environmentally sound management of hazardous wastes or other wastes’ means taking all practicable steps to ensure that hazardous wastes or other wastes are managed in a manner which will protect human health and the environment against the adverse effects that may result from such wastes.’

The Basel Convention secretariat has developed an information leaflet on ‘Environmentally Sound Management’ which emphasised on the use of an integrated life-cycle approach involving strong controls from the generation of a hazardous waste to its storage, transport, treatment, reuse, recycling, recovery and final disposal. The leaflet advised that cleaner production methods, which eliminate or reduce hazardous outputs can be both economically and environmentally efficient and that consumer education is needed to educate themselves as to the products and services that result in hazardous by-products. The leaflet further outlined the legal, institutional and technical conditions needed to be met to achieve environmentally sound management of hazardous wastes including:

- A regulatory and enforcement infrastructure that ensures compliance with applicable regulations;
- Sites or facilities are authorized and of an adequate standard of technology and pollution control to deal with hazardous wastes in the way proposed, in particular taking into account the level of technology and pollution control in the exporting country;
- Operators of sites or facilities at which hazardous wastes are managed are required, as appropriate, to monitor the effects of those activities;
- Appropriate action is taken in cases where monitoring gives indications that the management of hazardous wastes has resulted in unacceptable emissions
- People involved in the management of hazardous wastes are capable and adequately trained in their capacity.

In addition, a number of activities should be carried out in this context, including:

- the identification and quantifying of the types of waste being produced nationally; a best practice approach to avoid or minimise the generation of hazardous wastes and reduce their toxicity, such as the use of cleaner production methods and approaches
- the provision of sites or facilities authorised as environmentally sound to manage wastes, and in particular hazardous wastes.

### **4.3 The development of a strategy and implementation plan for Environmentally Sound Management of Hazardous Wastes and Other Wastes**

#### **4.3.1 Basel Declaration on Environmentally Sound Management**

COP5 (December 1999) in adopting the Basel Declaration on Environmentally Sound Management also adopted Decision V/33 on environmentally sound management which welcomed the Declaration and specified that, for the next decade of the Basel Convention, a number of activities be undertaken to achieve the objectives of environmentally sound management in nine areas:

- (a) Prevention, minimization, recycling, recovery and disposal of hazardous and other wastes subject to the Basel Convention, taking into account social, technological and economic concerns.
- (b) Active promotion and use of cleaner technologies with the aim of the prevention and minimization of hazardous and other wastes subject to the Basel Convention.
- (c) Further reduction of the transboundary movements of hazardous and other wastes subject to the Basel Convention, taking into account the need for efficient management, the principle of self-sufficiency and proximity and the priority requirement of recovery and recycling.
- (d) Prevention and monitoring of illegal traffic
- (e) Improvement and promotion of institutional and technical capacity building, and development, and of the transfer of environmentally sound technologies, especially for developing countries and countries with economies in transition.
- (f) Further development of regional and subregional centres for training and technology transfer.
- (g) Enhancement of information exchange, education and awareness raising in all sectors of society.
- (h) Co-operation and partnership at all levels between countries, public authorities, international organisations, the industry sector, non-governmental organisations and academic institutions.
- (i) Development of mechanisms for compliance with the monitoring and effective implementation of the Convention and its amendments

Attached to Decision V/33 was a table listing the proposed priority activities for the years 2000-2002 for further elaboration by the subsidiary bodies of the COP and for comments (by February 2002) by the Parties to the Convention. By the same decision,

the subsidiary bodies were requested to prepare a strategic plan, including an indicative work programme, for the period to the year 2010, to address the objectives set forth in the Decision, and to develop a work programme by areas of work based on the Decision for the years 2003-2004, for consideration and adoption by the COP at the sixth meeting.

#### **4.3.2 Strategic plan for the implementation of the Basel Convention (to 2010)**

COP6 (December 2002) Decision VI/1 on Strategic plan for the implementation of the Basel Convention (to 2010) adopted the strategic text of the strategic plan and an attached action table comprising short (2003-2004) and mid-to-long term (2005-2010) activities which would be reviewed and amended if necessary, for submission to the Seventh COP meeting.

In the table, activities for 2003-2004 are described under the relevant fields of the Basel Declaration on Environmentally Sound Management presented in common clusters, as appropriate:

##### Cluster 1 activities

Field (a) Prevention, minimization, recycling, recovery and disposal of hazardous and other wastes subject to the Basel Convention, taking into account social, technological and economic concerns.

Field (b) Active promotion and use of cleaner technologies with the aim of the prevention and minimization of hazardous and other wastes subject to the Basel Convention.

And

Field (e) Improvement and promotion of institutional and technical capacity building, and development, and of the transfer of environmentally sound technologies, especially for developing countries and countries with economies in transition

- Development of waste prevention and minimization programmes and tools
- Assistance in the development and implementation of national legislation and institutional and policy frameworks, including a legal base for enforcement and for the conduct of inventories and related activities, such as waste audits
- Development and enhancement of national capacity for the conduct of detailed inventories as well as waste audits for priority waste streams to assist in disposal/recovery operations and in the prevention and minimization of such wastes
- Development of enhanced capacity for the environmentally sound recycling and or recovery of hazardous wastes

##### Cluster 2 activities

Field (c) Further reduction of the transboundary movements of hazardous and other wastes subject to the Basel Convention, taking into account the need for efficient management, the principle of self-sufficiency and proximity and the priority requirement of recovery and recycling.

And

Field (d) Prevention and monitoring of illegal traffic

- Assessment of the transboundary movements of hazardous and other wastes with a view to reducing export and import of such wastes consistent with their environmentally sound and efficient management.

Cluster 3 activities

Field (f) Further development of regional and subregional centres for training and technology transfer.

- Development of tools for resource mobilization to support regional delivery functions of the Basel Convention Regional Centres
- Development of joint activities with UNEP/UNIDO National Cleaner Production Centres, interim secretariats of the Stockholm and Rotterdam Conventions

Cluster 4 activities

Field (g) Enhancement of information exchange, education and awareness-raising in all sectors of society

- Promotion of awareness and outreach of the Basel Convention, its amendment and protocol
- Enhancement of hazardous waste information through national education system.

Cluster 5 activities

Field (h) Cooperation and partnership at all levels between countries, public authorities, international organisations, the industry sector, non-governmental organisations and academic institutions.

- Promotion of effective sustainable partnership with major stakeholders and opportunities for joint environmentally sound management activities emphasizing waste minimization and the strengthening of capacity building
- Strengthening of cooperation with Multilateral Environmental Agreements and development of joint initiatives in support of capacity building, science, technology, training, awareness and mobilization of resources to facilitate and assist in fulfilling the aims of the Basel Convention

Cluster 6 activities

Field (i) Development of mechanisms for compliance with the monitoring and effective implementation of the Convention and its amendments.

- Establishment of an effective mechanism to assist Parties in facilitating their actions to implement the Basel Convention effectively and promoting their compliance with the provisions of the Convention

The activities contained in the Action Table for 2003-2004 pave the way for the implementation of 2005-2010 strategic plan. In the Action Table, a number of activities are also described for the period 2005-2010.

On the question of follow-up actions required from Parties, Decision VI/1 appealed to Parties and other stakeholders to provide financial and other resources, including in-kind support, for the implementation of the Strategic Plan;

The same Decision also appealed to recipient Parties and regions to consider including in their development assistance priorities projects that implement the Strategic Plan;

It encouraged Parties and other stakeholders to promote the implementation of the Strategic Plan and to cooperate among themselves in this regard.

In essence, there is now established a Strategic Plan for world-wide environmentally sound management of hazardous and other wastes as called for in the Basel Declaration on environmentally sound management. This Plan, adopted by the Parties at COP 6 in December 2002, requires action at all levels of society: training, information, communication, methodological tools, capacity building with financial support, transfer of know-how, knowledge and sound and proven cleaner technologies and processes are driving factors in the concrete implementation of the Basel Declaration. .

The effective involvement and coordination by all concerned stakeholders is essential for achieving the aims of the Basel Declaration. In implementing the Strategic Plan, the Parties recognise the principle of common but differentiated responsibility. Governments, the backbone of implementation of programmes and activities are encouraged to seek the assistance of the Secretariat and the Basel Convention Regional Centres (BCRCs) as well as other stakeholders. The operational BCRCs will be one of the key delivery mechanisms to implement the Strategic Plan at the regional level. The mobilisation of industry and other non-governmental organisations is important to ensure the practical application of environmentally sound management. Parties are responsible for establishing, maintaining and improving, as necessary, the general policy framework required for the evaluation and monitoring of the progress with the Strategic Plan. The enhancement of information exchange, awareness raising and education in all sectors of society is of paramount importance for achieving the aims of the Basel Convention.

## **5 CURRENT STATUS OF TECHNICAL ASSISTANCE AND FINANCIAL ASSISTANCE**

**Up till now, the secretariat of the Basel Convention has produced an information leaflet on technical assistance for managing hazardous wastes which states that the effective implementation of the Basel convention, the decisions taken by the Conference of Parties and the achievement of the environmentally sound management of the hazardous wastes, rely upon developing the adequate capacity and capability at the national or regional levels and upon the active cooperation among Parties with non-Parties and international organisations. Article 16 of the Basel Convention requests the Secretariat to compile specific information on sources of technical assistance, training, expertise and available technical and scientific know-how with a view to assisting requesting countries in such areas as:**

**the handling of the notification system of this Convention; the management of hazardous wastes and other wastes; environmentally sound technologies relating to hazardous wastes and other wastes, such as low and non-waste technology; the assessment of disposal capabilities and sites; The monitoring of hazardous wastes, and emergency responses.**

**The Secretariat responds to requests (from developing countries and countries with economy in transition) for technical assistance, raises funds and provides assistance/expertise concerning the implementation of the Basel Convention and environmentally sound management of hazardous wastes.**

**The Secretariat is cooperating with national authorities in delivering national legislation, setting up inventories of hazardous wastes, strengthening national institutions, assessing the hazardous waste management situation and preparing hazardous waste management plans.**

**On legislation, regulations and standards, the Secretariat provides assistance in the fields of law enforcement and capacity building depending on each country's specific weakness and deficiencies that appear during the implementation of the national policies on hazardous wastes.**

**On environmentally sound management of hazardous wastes, the Secretariat provides advisory services based on the following hierarchy of hazardous waste management:**

- prevention of generation of hazardous wastes;
- reduction at source of the weight, volume and hazardousness of the wastes
- recycling, re-use and recovery of hazardous wastes;
- final disposal

**Specifically, the Secretariat is providing technical assistance in the identification of main hazardous waste streams and preparation of national plans for the management of hazardous wastes to mainly Contracting Parties. Action has been taken or is planned in the short term with about 13 countries. So far no ASEAN countries are involved.**

**Concerning training programmes, the Secretariat is actively involved in the preparation of national and regional workshops and seminars on the legal, institutional and technical implementation of the Basel Convention.**

**The Secretariat aims at developing awareness and professional skills among all categories of actors involved such as:**

- development of awareness of decision-makers, manufacturers, community planners of the issues involved and the options available to address them;
- training of local specialists, empowering them with the capacity to develop and support management and control programmes; and**
- training of enforcement and control administration personnel.

**On the establishment of Regional/Subregional Centres for Training and Technology Transfer, once these centres have been established in all the regions, more activities on technical assistance will be taken over by these centres. Regional or subregional centres will be established for Africa (Nigeria coordinating centre, sub-regional centres: South Africa, Egypt and one centre for French-speaking country), for Asia and the Pacific (China, Indonesia), for Latin America and the Caribbean (Uruguay is coordinating centre, Argentina subregional centre for South America, El Salvador subregional centre for Central America, Trinidad and Tobago subregional centre subregional centre for the Caribbean) and for Central/Eastern Europe (Slovak Republic and Russian Federation.)**

**COP6 (December 2002) Decision VI/3 on Establishment and functioning of the Basel Convention Regional Centres for Training and Technology Transfer among others:**

- 1. Took note of the conclusions and recommendations of the Consultative Meeting of the Basel Convention Regional Centres held in Cairo, Egypt 4-5 April 2002**
- 2. Adopted core functions of the Basel Convention Regional Centres and the roles and functions of the Coordinating Centres.**
- 3. Adopted the core set of elements for inclusion in the Framework Agreement to be signed between the secretariat of the Basel Convention (on behalf of the Conference of the Parties) and the representative of the host countries' Governments.**
- 4. Endorsed the role of the Basel Convention Regional Centres in carrying out the implementation of the Base Declaration and the priority actions of the strategic plan for the implementation of the Basel Convention, using contributions from the Trust Fund for the Basel Convention, as agreed periodically by the Conference of Parties.**
- 5. Requested the Secretariat to prepare, based on the reports received from the Centres, a document on the implementation of the present decision and progress and difficulties encountered in the activities of the Centres, to be presented to the COP at the seventh meeting with a view to assess the adequacy of the arrangements for the functioning of the Centres, including financial mechanisms.**

**It urged all Parties and non-Parties in a position to do so, as well as international organizations, including development banks, non-governmental organisations and the private sector, to make financial contributions directly to the Technical Cooperation Trust Fund or in kind contributions, or contributions on a bilateral level, to allow all the Centres to become fully operational; and requested the secretariat to explore, in collaboration with the Regional Centres, possibilities for the establishment of partnerships with industry and other stakeholders in the work of the Regional Centres in order to ensure the long -term sustainability of the operation.**

**Finally it requested the Secretariat to establish, pursue, and reinforce its closer collaboration with relevant United Nations and other international and regional agencies and conventions in the work of the Regional Centres, in particular with:**

**UNEP offices and programmes, including its DTI&E, IETC, GPAPMELA, NCPCs, and Chemicals Branch, UNIDO, the UNITAR, the WHO, the FAO of the United Nations, the UN regional economic commissions, the World Customs Organisation, the International Criminal Police Organisation - Interpol General Secretariat, the secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora, the Ozone Secretariat and the regional organisations for the protection of the marine environment, to explore new areas of co-operation.**

## **6. NATIONAL PROFILES OF SOME OF THE DEVELOPING COUNTRIES IN ASEAN AND THEIR NEEDS FOR TECHNICAL ASSISTANCE**

In evaluating the national profiles especially in the case of ASEAN countries, it is proposed that the countries be divided into four categories.

The first group comprises those that are regarded as high income countries and are likely to be able to fund the implementation of environmentally sound management of hazardous wastes as well as their own capacity building. Besides, this group will probably have set up technical assistance programmes for the least developed countries



if not for those who are low income developing countries. They may also have joint technical co-operation programmes with developed countries to provide technical assistance to the least developed nations.

The second group comprises higher middle income developing countries, which are making significant inroads into development particularly industrial development. These countries have built the basic infrastructure towards supporting hazardous waste management and have the legal and institutional and legal framework to implement environmentally sound hazardous waste management. However they still lack both skilled manpower resources as well as financial resources to implement environmentally sound management of hazardous wastes fully. These countries receive very limited technical assistance in the form of Overseas Development Assistance from developed countries but have substantial intellectual capital to implement environmentally sound management of hazardous wastes if supported by financial resources and some technical assistance. These countries may also have established technical co-operation programmes that provide training for the least developed countries.

The third group of countries belongs to the lower middle income countries that have invested limited infrastructure for hazardous waste management due to shortage of financial resources and skilled manpower. The industrial development in the country is also not very intensive. This group of countries receives substantial overseas development assistance (ODA) from developed countries. They are also recipients of technical and financial assistance from U. N. agencies and international and regional-financial institutions.

The fourth group of countries are those regarded as low income or least developed countries. These countries are the main recipients of financial and technical assistance from the various U. N. Agencies, international and regional financial institutions and overseas development assistance (ODA) from the developed countries. They generally have weak institutional and legal framework for environmentally sound hazardous wastes management. They do not have a large industrial base and thus do not generate much hazardous wastes in the first place. This group of countries is usually not yet Parties to the Montreal Protocol.

The national profile of each country provides information on the following:

1. Competent Authority
2. Focal Point;
3. a. National definition of hazardous wastes used in the context of transboundary movement
- b. Regulate/control of any additional wastes as hazardous that are not included in Art 1(1)(a) and would be controlled for the purpose of transboundary movements pursuant to Art 1(1)(b)
- c. Any wastes other than those pursuant to Art.1(1)(a) and/or Art1(1)(b) of the Basel Convention that require special consideration when subjected to transboundary movement
4. Statistics on hazardous wastes and other wastes

- a. Hazardous wastes generated
- b. Other wastes generated
- c. Amount exported
- d. Amount imported
5. Restrictions on Transboundary movement
  - a. Amendment to the Basel Convention
  - b. Restrictions on export for final disposal
  - c. Restrictions on export for recovery
  - d. Restrictions on import for final disposal
  - e. Restrictions on import for recovery
  - f. Restrictions on transit
6. Reduction and or Elimination of Hazardous Wastes Generation
  - a. National strategy/policies
  - b. Legislation, regulations and guidelines
  - c. Economic Instruments/Initiatives
  - d. Measures taken by industries/waste generators
  - e. Others
7. Transboundary Movement Reduction Measures
  - a. National Strategy/policy
  - b. Legislation, regulations and guidelines
  - c. Measures taken by industries/waste generators
8. Disposal/Recovery Facilities
  - a. Disposal facilities
  - b. Recovery/recycling/reuse facilities
9. Bilateral, Multilateral or Regional Agreements
10. Technical Assistance and Training Available

The 1999 national profiles of the seven ASEAN countries (all Parties to the Basel Convention) that submitted their reports were analysed:

Seven of the countries had submitted information for items 1 (Competent Authority) & 2 (Focal Point) as required under Article 5 of the Basel Convention.

For sub-item 3a on national definition of hazardous wastes, all the countries answered yes in the case of hazardous wastes and indicated that the definition is contained in laws, or regulations or orders.

On sub-item 3b, the answer from group 1 and group 4 countries indicated that they did not regulate hazardous wastes other than those categorised as such under the Article 1 (1) (a) and (b) of the Basel Convention. Countries in groups 2 and 3 answered yes and the additional hazardous wastes regulated were specified.

On sub-item 3c which asks whether there are wastes other than those under Article 1(1) (a) & (b) of the Basel Convention that require special consideration (such as prior informed consent) when subjected to transboundary movement, group 4 countries said

no, the group 1 country yes, and one of the two countries in each of groups 2 and 3 said yes, the others, no or nil.

The information on statistics (item 4) could indicate the readiness of a country to implement hazardous wastes management as well as their capacity building needs. Countries in groups 1 and 2 were able to provide statistics (1999 data) on the quantity of hazardous and other wastes generated, as well the amounts imported or exported except that one of the two group 2 countries had no data on the quantity of hazardous wastes generated and the other had no data on other wastes generated. While groups 3 and 4 had no data on the quantities of hazardous wastes generated, both the group 3 countries and one of the two group 4 countries had data on the amount of hazardous wastes exported and only one group 3 country had data on the quantity of hazardous wastes imported.

Moving to item 5 on Restrictions on Transboundary Movement, under sub-item 5(a) on Amendment to the Basel Convention, except for one of the group 2 countries, none of the other six countries had implemented the Ban Amendment. However the other group 2 country reported that it was preparing to do so while the group 1 country reported that they were prohibiting import of hazardous wastes from OECD countries. One group 3 country reported that it was allowing the import of used lead acid batteries up to year 2002. A group 4 country reported that it prohibited the import and export of hazardous wastes regardless of their sources or destinations.

For sub-item 5(b) - restriction on export for final disposal, a group 4 country reported that there was no restriction. All the other six countries reported that there was restriction backed by legislation. A group 2 country reported that it prohibited export of hazardous wastes for disposal if wastes could be treated locally. The other group 2 country reported that export was permitted where there was no appropriate disposal facilities. The group 1 country reported that the exporter needed permit from the authorities prior to export.

For sub-item 5 (c) - restriction in export for recovery, a group 4 country reported no while the second group 4 country had restriction backed by legislation. A group 3 country reported that export for recovery was allowed subject to written permission. Another group 3 country reported that that there was restriction backed by legislation. A group 2 country reported that restriction was backed by legislation and export was subject to guidelines on minimum percentage for recoverables. Another group 2 country reported that the restriction was backed by ministerial regulation. The group 1 country reported that the restriction was backed by legislation and the exporter was required to obtain a permit from the Authorities prior to export.

For sub-item 5 (d) – restriction on import for final disposal, all countries had restrictions that were backed by legislation or regulation. A group 2 country reported that import for final disposal from the non-OECD countries required special permission while there was total prohibition for hazardous wastes import from OECD countries.

Another group 2 country had a national policy on total ban of hazardous wastes import for final disposal.

For sub- item 5 (e) – restriction on import for recovery, all the seven countries reported that they had restriction on import for recovery, which was also backed by legislation. A group 4 country reported that importation of certain categories of scraps after being treated and cleaned outside for use as a material for industrial production was permitted. A group 3 country reported that the import of materials containing hazardous substances for recovery, recycling and reprocessing might be allowed upon prior written approval from the authorities. The other group 3 country reported that some wastes were prohibited from import backed up by legislation and policies. A group 2 country reported that there was total prohibition for the import of hazardous wastes from OECD countries. Import of hazardous wastes from non-OECD countries required written approval. A second group 2 country reported that the import of hazardous wastes for recovery required following certain procedures outlined in notifications. For plastic wastes, there were some additional requirements. The group 1 country reported that the importer needed a permit from the authorities prior to import.

For sub-item 5 (f) – restriction on transit, one group 4 country reported that it had no restriction while the other group 4 country said that it had restriction, which is backed by legislation. One group 3 country reported that there was no restriction but transit must have licence from the authority. The second group 3 country, the two group 2 countries and the group 1 country reported that there was restriction, backed by legislation.

On reduction and elimination of hazardous wastes generation (item 6), the situation was as follows:

For sub-item 6(a), a group 4 country had no national strategy/policies. The second group 4 country prohibited an act causing environmental degradation, pollution and accidents and required wastes containing toxic substances to be properly treated before discharge. One group 3 country reported that waste generators would be evaluated by an auditor. Another group 3 country promoted good environmental practices including waste minimization and cleaner technology among the industries. One group 2 country reported having a national programme for waste reduction and for promoting cleaner production. Another group 2 country reported having efficient hazardous waste management schemes and emergency system as well as programme to promote the private sector to invest in hazardous wastes management, cleaner production and cleaner technologies. The group 1 country had a national strategy to avoid/reduce hazardous waste generation, the use of cleaner technology and recycling and the reuse of toxic industrial wastes where appropriate.

For sub-item 6(b), generally all countries had legislation/regulations and guidelines. Specifically, the group 1 country had a new legislation to fulfill the requirements of Basel Convention while a group 2 country was preparing to enhance existing provision in the regulation to reduce wastes using the best practicable means.

For sub-item 6 (c) on economic instruments/initiatives, one group 4 country reported that it had no provision while the second group 4 country reported that individuals and organizations were legally bound to pay compensation for environmental damage caused. One group 3 country reported that the economic instruments/initiatives were in the legislation and another country had no information. One group 2 country reported that it had 5 initiatives introduced in the legislation and another group 2 country had no information. The group 1 country reported that it had provision for private companies to apply for research funding on reduction of hazardous wastes generation or recycling of hazardous wastes.

For sub-item 6(d), a group 4 country reported that no measures had been taken by industries/waste generators for the reduction and elimination of hazardous waste generation. Another group 4 country reported that industries were required to comply with environmental standards and to prevent/combat environmental pollution, environmental degradation and environmental accidents. One group 3 country reported that there were measures which were also backed up by government regulation. Another group 3 country reported that industries and waste generators complied with the legal requirements on registration and reporting requirements for hazardous waste generators. A group 2 country reported on the use of cleaner production, waste minimization and ISO 14001 certification. Another group 2 country reported that 5 categories and 50 factories had been in the process of developing clean technologies and waste minimization method, in cooperation and support from relevant authorities. The group 1 country reported on the use of cleaner production and waste minimization/reduction/recycling/recovery programmes.

For sub-item 6(e) on other wastes, one group 2 country reported that special allowance incentives were given to companies which generated wastes and intended to set up facilities to treat their own wastes covering all capital expenses incurred. A second group 2 country reported on the use of ISO 14001, research on technologies and waste minimization, and technical guidelines on environmentally sound management of hazardous wastes. Countries belonging to other groups had no information.

On transboundary movement reduction measures (item 7), the two group 4 countries did not have information regarding national strategy/policies (sub-item 7(a)); legislation, regulations and guidelines (sub-item 7(b)), or measures taken by industries/waste generators (sub-item 7(c)). In all the other groups, the overall situation was as follows:

For sub-item 7(a), the group 1 country screened industries for their ability to treat hazardous wastes locally; allowed the export of hazardous wastes for recovery if no facility was available locally and did not allow export of hazardous wastes for disposal if there were facilities for disposal locally. One group 2 country encouraged industries to use locally produced wastes as raw materials. Another group 2 country banned imports of hazardous wastes for final disposal and restricted imports of some hazardous wastes for recovery. In addition, there was a ban on the import of used lead acid batteries and there was strict control on the impact of used plastic scraps for recovery. One group 3 country had a notification system to control and import hazardous wastes

under the Basel Convention. Another group 3 country promoted good environmental practices including waste minimization and cleaner technology among the industries.

For sub-item 7(b), the group 1 country reported that it had legislation and a code of practice. A group 2 country did not have any information while another group 2 country reported having programme to promote private sector to invest in hazardous wastes management, cleaner production and cleaner technologies; legislation to ban imports of hazardous wastes for final disposal and import restriction on some hazardous wastes for recovery. In addition, there was legislation to ban the import of used lead acid batteries and there was strict control on the import of used plastic scraps for recovery. Of the two group 3 countries, one reported that there was an implementation procedure for the export and import of hazardous wastes under the national regulation. The other group 3 country reported that it has related legislation.

For sub-item 7(c), the group 1 country reported that there was waste reduction/recycling and recovery programme among industries. One group 2 country has no information on the matter. One group 3 country reported that industries/wastes generators comply with national regulation and the Basel Convention for export and import of hazardous wastes. The other group 3 country reports that industries/waste generators implement waste minimization programme and operation of an EMS; and compliance of legal requirements on registration and reporting requirements for hazardous waste generators.

On the availability of disposal/recovery facilities (item 8), the group 1 country had a government facility for landfill and several private facilities that included recovery/recycling/reuse facilities. Two group 2 countries had centralized wastes hazardous wastes disposal facilities. The two group 2 countries plus two group 3 countries had recovery/recycling/reuse facilities. The two group 4 countries had no disposal/recovery facilities.

On bilateral and multiple agreements availability (item 9), one group 3 country indicated that it was proposing bilateral agreement with an OECD country to export semi-conductor and electronics industry waste while one group 2 country indicated having a bilateral agreement with an OECD country. All the other five countries did not have any.

On technical assistance and training available for hazardous waste management (item 10), all countries except for one group 3 country indicated yes. Both the group 1 and the group 4 countries named only one source; one group 3 country had three sources and two group 2 countries had four to five sources.

## **7. RESPONSE OF DEVELOPING COUNTRIES TO ENVIRONMENTALLY SOUND MANAGEMENT OF HAZARDOUS WASTES AND OTHER WASTES**

**Environmentally sound management of hazardous wastes and other wastes in developing countries passes through a process of awareness creation and education, initial response and commitment, after which a survey is normally conducted to collect information from a list of**

identified waste generators on the types and quantities of hazardous wastes generated, and the manner in which the wastes are handled, stored, transported, treated, reused, recycled, recovered and finally disposed. To ensure that the data provided is meaningful and true, the waste generators must cooperate fully with the Government authorities conducting the survey. Where needed the authorities may have to use its legal powers to order the generators to provide the information which is needed for planning and implementation of environmentally sound management of the hazardous wastes they generate.

Following the completion of the survey, the information collected is analysed. According to the seriousness of the situation, a feasibility study is conducted. The feasibility study will address the awareness and education aspects, the legal and institutional arrangements for environmentally sound hazardous wastes management. Good principles such as cleaner production methodology and waste minimization, waste recovery and recycling may be incorporated into the hazardous wastes management regulations or may be formulated as guidelines which can be used as administrative tools by enforcement officers when they conduct their inspection visits to industries.

In addition, the feasibility study would also address the need for hazardous waste management infrastructure facilities to be established and how they can be funded. In the light of the provisions under the Basel Convention, particularly on the need to implement environmentally sound management of hazardous wastes, the study should also recommend a national strategy and action plan for environmentally sound management of hazardous wastes and address the capacity building needs of the country in order to implement it

Table 1 is an assessment of the status of response of the ASEAN countries to the implementation of environmentally sound management of hazardous wastes. The grouping of the country is based on the criteria mentioned in Chapter 6. A fifth group for ASEAN countries that are non-Parties to the Basel Convention is included in the assessment.

Based on past experience, for developing countries to embark on environmentally sound management of hazardous wastes, there need to be an awareness and training programme for them, this may come in the form of seminars and workshops and training courses for government officials from environment agencies or ministries organized at the national level or regional level. The participation by developing countries at these programmes should be sponsored, particularly for group 3 and group 4 countries. At the same time invitation should be extended to developing countries who are not yet Parties to the Basel Convention to attend meetings organized by the Basel Convention secretariat. Hopefully, the awareness and knowledge gained about hazardous wastes management and the Basel Convention will lead to the commitment of these countries to become Parties to the Convention.

Ideally, developing countries embarking on the process of environmentally sound management of hazardous wastes, which is an objective of the Convention (Article 10) should conduct a waste survey to assess the status of waste generation by its industries and how the wastes, particularly the hazardous wastes are being managed. Having completed the survey and assessed the seriousness of the situation, a decision should be made regarding the need to conduct a feasibility study which will recommend a national strategy and action plan to implement environmentally sound management of hazardous wastes.

The study will address the awareness and education aspects and the legal and institutional aspects of environmentally sound management of hazardous wastes. The need to have hazardous wastes management facilities will also be studied, and if needed, how it can be financed. Finally

**the study will also look into the capacity building needs of the country for the implementation of environmentally sound management of hazardous wastes, taking into account the need to involve the various stakeholders such as the Government, the private sector, the non governmental organizations and the universities/research institutions. Technical and financial assistance should be provided to the developing countries in undertaking the waste survey and in undertaking the feasibility study. Above all, capacity building programmes should be instituted for the various stakeholders to prepare them for the implementation of environmentally sound management of hazardous wastes. This can be done by involving them in the feasibility stage of the study. Representatives from these stakeholders should be represented in the steering committee and the technical committee of the feasibility study and be invited to participate in the various awareness and education programmes.**

## **8. SUMMARY OF FINDINGS**

**The following are the findings of the study:**

- (a) Basel Convention provides for capacity building needs of developing countries to implement environmentally sound management of hazardous wastes and other wastes they generate.**
- (b) The aim of the study is to evaluate the means of implementing paragraph 21 of the preamble to the Basel Convention to promote assistance (capacity building) to non-Annex VII countries (developing countries) for the sound management of hazardous wastes and other wastes generated in other countries including the provision of technical and financial assistance.**
- (c) Paragraph 21 of the preamble recognizes the need for promoting the transfer of technology for the sound management of hazardous wastes and other wastes particularly for developing countries.**
- (d) The national resource base such as national cleaner production centres and other similar initiatives can serve as the vehicle for technology transfer to developing countries and vice versa.**

**Under the Basel Convention, "environmentally sound management of hazardous wastes or other wastes" means taking all practicable steps to ensure that hazardous wastes or other wastes are managed in a manner which will protect human health and the environment against the adverse effects that may result from such wastes."**

- (e) The information leaflet on Environmentally Sound Management issued by the Basel Convention Secretariat emphasises on the use of an integrated life-cycle approach involving strong controls from the generation of a hazardous waste to its storage, transport, treatment, reuse, recycling, recovery and final disposal and advises that cleaner production methods which eliminate or reduce hazardous outputs can be both economically and environmentally efficient and that consumer education is needed to educate themselves as to the products and services that result in hazardous by-products.**
- (f) The Basel Declaration on environmentally sound management was adopted in COP5 (December 1999) and the strategic text of the Strategic Plan for the implementation of the Basel Convention (to 2010) with an attached action table composing of short (2003-2004) and mid-to-long term activities (2005-2010) were**



adopted at COP6 (December 2002) which would be reviewed and amended if necessary, for submission to the Seventh COP meeting.

- (g) Capacity building of developing countries in environmentally sound management can be implemented through technical and financial assistance. According to the Basel Convention secretariat, the effective implementation of the Basel Convention, the decisions taken by the Conference of Parties and the achievement of the environmentally sound management of the hazardous wastes, rely upon developing the adequate capacity and capability at the national and regional levels and upon the active cooperation among Parties with non-Parties and international organisations.
- (h) Article 16 of the Basel Convention requests the Secretariat to compile specific information on sources of technical assistance, training, expertise and available technical and scientific know-how with a view to assisting requesting countries in such areas as: the handling of the notification system of this Convention; the management of hazardous wastes and other wastes; environmentally sound technologies relating to hazardous wastes and other wastes, such as low and non-waste technology; the assessment of disposal capabilities and sites; the monitoring of hazardous wastes, and emergency responses.
- (j) The Secretariat responds to requests (from developing countries and countries with economy in transition) for technical assistance, raises funds and provides assistance/expertise concerning the implementation of the Basel Convention and environmentally sound management of hazardous wastes. The Secretariat is also cooperating with national authorities in delivering national legislation, setting up inventories of hazardous wastes, strengthening national institutions, assessing the hazardous waste management situation and preparing hazardous waste management plans.
- (k) On legislation, regulations and standards, the Secretariat provides assistance in the fields of law enforcement and capacity building depending on each country's specific weakness and deficiencies that surface during the implementation of the national policies on hazardous wastes.**
- (l) On environmentally sound management of hazardous wastes, the Secretariat provides advisory services based on the following hierarchy of hazardous waste management:**  
**prevention of generation of hazardous wastes;**  
**reduction at source of the weight, volume and hazardousness of the waste**  
**recycling, re-use and recovery of hazardous wastes;**  
**final disposal**
- (m) Specifically, the Secretariat is providing technical assistance in identification of main hazardous waste streams and preparation of national plans for the management of hazardous wastes to mainly Contracting Parties. Action has been taken or is planned in the short term with about 13 countries. So far no ASEAN countries are involved.**
- (n) Concerning training programmes, the Secretariat is actively involved in the preparation of national and regional workshops and seminars on the legal, institutional and technical implementation of the Basel Convention. The Secretariat aims at developing awareness and professional skills among all categories of actors involved such as:**
  - (i) development of awareness of decision-makers, manufacturers, community**

- planners of the issues involved and the options available to address them**
- (ii) training of local specialists, empowering them with the capacity to develop and support management and control programmes; and**
- (iii) training of enforcement and control administration personnel.**
- (o) The activities of the Secretariat are funded by the Trust Fund set up under the Basel Convention.**
- (p) A consultative meeting of the Basel Convention Regional Centre held 4-5 April 2002 identified various options for the establishment and operation of regional centres and evaluated the implication of these options including financial implications. The meeting reviewed a number of pre-requisites for the successful operation of regional centres among which are sound programme of work, financial resources, commitment of host country and support from countries in the region. For financial resources, the Meeting identified several possible sources of funding including the Trust Fund for the Basel Convention, the Technical Co-operation Trust Fund, support from the country hosting the regional centre, voluntary contribution from other governments, project funds supported by governments and funding mechanisms such as the Global Environmental Facility(GEF) etc.**
- (q) Once the Regional/Subregional Centres for Training and Technology Transfer have been established in all the regions, more activities on technical assistance will be taken over by these centres.**
- (r) Regional or subregional centre will be established for Africa (Nigeria coordinating centre, sub-regional centres: South Africa, Egypt and one centre for French-speaking country), for Asia and the Pacific (China, Indonesia), for Latin America and the Caribbean (Uruguay is coordinating centre, Argentina subregional centre for South America, El Salvador subregional centre for Central America, Trinidad and Tobago subregional centre subregional centre for the Caribbean) and for Central/Eastern Europe (Slovak Republic and Russian Federation.)**
- (s) From the national profiles for seven of the ASEAN countries, and the general knowledge of the countries, the countries can be categorized into four groups: the least developed countries, the lower middle income countries, the higher middle income countries and the high-income countries. Evaluation of the profiles point out a couple of similarities as well as dissimilarities among the groups of countries:**

  - (i) All the seven countries are Parties to the Basel Convention. For the rest of the ASEAN countries, one has become a Party recently and has provided names of Competent persons and Focal points.**
  - (ii) All the seven countries said they had definition for hazardous wastes contained in laws or regulations or orders.**
  - (iii) On the ability to provide statistics on hazardous and other wastes generated, the group 1 country and group 2 countries were more ready than group 3 countries while group 4 countries had no data.**
  - (iv) For restrictions on Transboundary Movement, all the seven countries except for one of the group 2 countries had not implemented the Ban Amendment. Both the group 1 and group 2 countries were moving in the direction of prohibiting import of hazardous wastes from OECD countries.**
  - (v) On restriction of export for final disposal, all countries except for one group 4 country reported that there was restriction backed by legislation. Generally, groups 1 and 2 countries were moving in the direction that no export of**

hazardous wastes would be permitted if they could be treated locally or if local disposal facilities are available. In any case, all exporters would require a permit from the authorities...

- (vi) For restriction on export for recovery, all countries except for a group 3 and a group 4 country reported that there was restriction. Two of the countries required exporters to obtain a permit/written
- (vii) For restriction on import for final disposal and for recovery, all the countries had restrictions that were backed by legislation or regulation. The practice by groups 1 & 2 countries was that imports for final disposal from the non-OECD countries require special permission while there is total prohibition for hazardous wastes import from OECD countries for final disposal.
- (viii) For restriction on transit, all except for two countries had restriction backed by legislation. Of the two that had no restriction one was from group 3 the other from group 4. The group 3 country reported transit must have licence from the authorities.
- (ix) For the reduction and elimination of hazardous wastes generation, a group 4 country had no national strategy/ policies; no economic instruments/initiatives; and no measures taken by industries/waste generators but had legislation/regulations and guidelines. For the rest of the other six countries, the situation was as follows:
  - On national strategy and policies, except for the group 1 country which had a national strategy to reduce hazardous waste generation, the other countries reported using good environmental practices such as cleaner technology, cleaner production and waste minimisation.
  - On legislation/regulations and guidelines for the reduction and elimination of hazardous wastes, generally all the countries in groups 1, 2, and 3 said yes.
  - On economic instruments/initiatives for the reduction and elimination of hazardous wastes, three countries reported no and four said yes. The economic instruments reported ranged from compensation for environmental damage to legislating the economic instruments to providing research funding to industries on waste-reduction of hazardous wastes generation or recycling of hazardous wastes.
  - On measures by industries/waste generators for the reduction and elimination of hazardous waste generation, the response included complying with standards and regulation in a group 4 country; reporting on wastes generated in a group 3 country; ISO 14001 certification and developing clean technologies and waste minimization methods in a group 2 country; and the use of cleaner production and waste minimization/reduction/recycling/recovery programmes in the group 1 country.
  - On other measures one group 2 country reported that special allowance incentives were given to companies which treated their own wastes.. A second group 2 country reported on the use of ISO 14001, research on technologies and waste minimization. Two group 3 countries and one group 4 country had no information.

- (x) On transboundary movement reduction measures, the two group 4 countries did not have information regarding national strategy/policies; legislation, regulations and guidelines; or measures taken by industries/waste generators.

In all the other groups, the overall situation was as follows:

- On national strategy and policies to reduce transboundary movement, the group 1 country screened industries for their ability to treat hazardous wastes locally. One group 2 country encouraged industries to use locally produced wastes as raw materials. Another group 2 country and one group 3 country had strategy to control the import of hazardous wastes while another group 3 country promoted good environmental practices among industries.
  - On legislation, regulations and guidelines for reducing transboundary movement, the group 1 country reported that it had legislation and a code of practice. A group 2 country did not have any information while another group 2 country reported having programme to promote private sector to invest in hazardous wastes management, cleaner production and cleaner technologies. The two group 3 countries had legislation for the export and import of hazardous wastes.
  - On measures by industries/waste generators to reduce transboundary movement, the group 1 country reported having waste reduction/recycling and recovery programme among industries. One group 2 country had no information on the matter. One group 3 country reported that industries/wastes generators complied with national regulation and the Basel Convention for export and import of hazardous wastes. The other group 3 country reported that industries/waste generators adopted good environmental practices in managing the hazardous waste generated.
- (xi) On the availability of disposal/recovery facilities, one group 1 country had a government facility for landfill and several private facilities that included recovery/recycling/reuse facilities. Two group 2 countries had centralized wastes hazardous wastes disposal facilities. The two group 2 countries plus two group 3 countries had recovery/recycling/reuse facilities. The two group four countries had no disposal/recovery facilities.
- (xii) On bilateral and multiple agreements availability, one group 3 country indicated that it was proposing bilateral agreement with an OECD country to export semi-conductor and electronics industry waste while one group 2 country indicated had a bilateral agreement with an OECD country. All the other five countries did not have any.
- (xiii) On technical assistance and training available for hazardous waste management, all countries indicated yes except for one group 3 country that did not provide information. It is therefore concluded that there are sources of technical assistance and training available among the ASEAN (developing countries) to tap from. Similarly, the same sources are also candidates for technical assistance and training.

**(t) From the study of the response from developing countries to environmentally sound management of hazardous wastes it is concluded that, developing countries embarking on a process to implement environmentally sound management of hazardous wastes undergo**

**different phases of development - awareness creation and education, initial response, and commitment to become a Party to the Basel Convention. The countries would then conduct waste survey/inventory and embark on a feasibility study that results in the recommended national strategy and action plan comprising the awareness programme, the legal and institutional aspects, the waste disposal facilities and their financing and or the need for economic instruments. Once a decision is reached, the Action Plan is implemented with the participation of the stakeholders. The implementation is then continuously monitored and reviewed. Once this phase of the process is reached, developing countries will then be in a better position to participate at meetings of COP and its subsidiary bodies and share experience regarding the implementation of environmentally sound management of hazardous wastes in their countries. At each phase of the development of this process, developing countries would have received or will receive technical and financial assistance from multilateral agencies like the UNDP, UNEP and the secretariat of the Basel Convention, bilateral development funding agencies like JICA, DANIDA, USAID, AUSAID, CIDA, SIDA etc., and international and regional financial institutions like the their World Bank and the Asian Development Bank. The technical and financial assistance should continue to be given in accordance with the needs and capacity of individual countries to participate with special attention given to group 3 and group 4 countries..**

**An assessment of the status of implementation of the various phases of the implementation cycle shows that countries in groups 1 and 2 have gone through the cycle at least once and are going through it continually in order to improve and sustain. Group 3 countries have initiated or are embarking on the waste survey and feasibility study; group 4 countries will be preparing for the survey while countries who are not yet parties will be sending officers for awareness and education programmes.**

## **9. RECOMMENDATIONS**

Based on the above evaluation, the following are recommended:

1. For those developing countries grouped as low income or least developed and for developing countries who are non-Parties, capacity building could be initiated by:
  - a) inviting senior decision makers from the environment agency or environment ministry to attend awareness seminars and workshops organised by the Basel Convention Secretariat and/or the Regional Centres.
  - b) International Agencies such as UNEP and UNDP could also sponsor senior environment officials from these countries to attend the COP meetings as well as meetings of the subsidiary bodies of the Basel Convention as observers.
  - c) Once these government officials are made aware of the importance of the Basel Convention for them as well as the benefits of environmentally sound management of hazardous wastes and the technical and financial assistance provided to developing countries, they may become a Party to the Basel Convention and avail themselves to the capacity building programmes to assist developing countries to implement environmentally sound management of hazardous wastes and other wastes they generate.
2. For non-Annex VII countries who belong to the lower middle income group or whose GDP is very much lower than US\$3,500 of GDP per capita, in addition to inviting their environmental or hazardous waste management personnel in

awareness and training courses, personnel belonging or ear-marked to work in hazardous wastes management units of environment agencies or ministries should be provided with opportunities for short to medium term attachments to environment agencies in developed countries and be exposed to environmentally sound hazardous wastes management practices in these countries. These countries should also be assisted to conduct hazardous wastes surveys and to establish a system of hazardous wastes management that is based on the cradle to grave concept. Based on the seriousness of the situation, the authorities in these countries may wish to establish an integrated waste management facility to support the implementation of environmentally sound hazardous wastes management. The establishment of such a facility involves an investment. While the secretariat of the Basel Convention may not be in a position to assist financially, it can help to arrange for a feasibility study to be sponsored by an international financial institution such as the World Bank or the Asian Development Bank which can lead to investment either by the Government funding or by way of privatisation.

3. In the case of upper middle income non-Annex VII countries whose GDP has reached or is reaching US \$ 3,500 per capital, it is likely that these countries have reached a certain level of industrial development, and has invested in the building of an integrated hazardous wastes treatment facility. But it will also require capacity building which can help them to sustain the implementation such as :
  - a. Provide technical assistance to the hazardous waste management agency in the formulation of monitoring and audit procedures for enforcement of the operation of hazardous waste management facilities and licenced recovery and recycling facilities and in the training of enforcement officers to ensure that the integrated hazardous management facility is operated in an environmentally sound manner.
  - b. Provide training (technology transfer) to the personnel working in the integrated hazardous wastes management facility so that the local operators can operate their facility in an environmentally sound manner.
4. The group 1 and group 2 countries should be encouraged to participate in the technical and financial assistance programme for developing countries implemented under the Basel Convention Trust Fund as well as Basel Convention Technical Co-operation Trust Fund.
5. Developing countries in the ASEAN region comprise a mix of countries in different stages of development/income level. As a result each country has different needs in terms of technical and financial assistance (capacity building). An attempt has been made to ascertain the stage of development in the implementation cycle. It is recommended that a survey is conducted based on the proposed format and to ascertain the actual status and that a compilation is done on an annual basis. The concept if agreed can also be implemented in other regions.
6. It is recommended that the Secretariat adopt an approach of technical assistance that addresses the specific needs of the country concerned. The countries should be encouraged to work out a national strategy and action plan guided by the Strategy and action plan on environmentally sound management of hazardous wastes

adopted at COP6. This should be done through the programme of work at the Basel Convention Regional Centres. The regional centers supported by the secretariat will be used as the vehicle to assist developing countries in the implementation of environmentally sound management of hazardous wastes. At each country, a country programme of technical and financial assistance to implement environmentally sound management of hazardous wastes should be worked out together with the national competent authority and the national agency in charge of technical co-operation/assistance. The country programme should take into account the technical assistance programmes of other donors such as the UNDP, JICA, DANIDA etc. and should involve all the important stakeholders in the formulation. This co-ordinated approach will avoid duplication of effort and maximize the financial resources available for the implementation. It will also avoid overtaxing the competent authorities and will help to build the technical capability of the stakeholders in the developing countries to address a complex but important environmental issue in the country. The participation of the stakeholders will foster ownership thus enhance sustainability of the implementation.

7. It is recommended that the regional centre concept of the Basel Convention should be promoted for acceptance and support at the highest level (ASEAN Senior Officials on the Environment (ASOEN) Meeting, ASEAN Environment Ministers Meeting and ASEAN Summit). This will give importance to the regional centre and attract more funding to the implementation of the regional as well as national programmes.
8. It is also recommended that as an immediate step the secretariat approach the technical co-operation agencies/departments in developing countries particularly those in group 1 and group 2 to gather information on the various modalities of co-operation between the Basel Convention secretariat and the technical co-operation department of the country including cost sharing, sourcing of local experts, contribution by the private sector and third party funding, particularly with regard to the implementation of the work programme of the regional office on environmentally sound management.
9. It is recommended that developing countries be facilitated in the formulation and implementation of cleaner production programmes that enable the transfer of environmentally sound technologies on waste avoidance and waste reduction to the industries. National cleaner production centres should be established as practicable to network with the work programmes of the Basel Convention Regional Centres. These national centres can conduct case studies on cleaner production and waste minimisation as well as provide training, thus serving as a local resource centre to support the implementation of environmentally sound management of hazardous wastes and other wastes
10. The various possible funding sources identified at the consultative meeting of the Basel Convention Regional Centres held in April 2002 should be actively pursued by the Regional Centres when they are working out their programme of work.

**Table 1- Status of developing countries in the implementation of Environmentally Sound Management of Hazardous Wastes**

<b>Phase of Implementation</b>	<b>Group 1</b>	<b>Group 2</b>	<b>Group 3</b>	<b>Group 4</b>	<b>Non-party Group</b>
1. Awareness Creation and Education ( Seminars and workshops and training on hazardous wastes management)	Yes	Yes	Yes	Yes	No
2. Initial Response (In relation to the Basel Convention, send observers to attend Conference of Party meetings and meetings of subsidiary bodies)	Yes	Yes	Yes	Yes	No
3. Commitment (Signing or acceding to the Basel Convention and its amendments and protocols, and participate as a Party State and preparing to meet all the obligations)	Yes	Yes	Yes	Yes	No
4. Waste survey/inventory (Waste quantities known and waste quantities defined)	Yes	Yes	Yes	No	No
5. Feasibility study on Environmentally sound hazardous wastes management	Yes	Yes	No	No	No
6. Decision on National strategy and Action plan: a) Awareness b) Institutional aspects c) Legal aspects d) Waste disposal facilities e) Financing/economic investments	Yes	Yes	No	No	No
7. Implementation of Action plan with participation of stakeholders (Government, Private sector, NGOs and Research Institution/Universities)	Yes	Yes	No	No	No
8. Participate and share experience at meetings of COP and its subsidiary bodies	Yes	Yes	No	No	No
9. Technical co-operation (Technology transfer and training) provided by local resources e.g. National resource centres such as Cleaner Production Centres or jointly with the Basel Convention Regional centres and/or with bilateral and multilateral technical and financial assistance programmes)	Yes	Yes	No	No	No