

PRIME PROJECT
(Private Sector Participation in Managing the Environment)
A Mid-term Evaluation (UNDP PHI/96/015)
Final Report

Submitted
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A. Rationale of Mid-term Evaluation

The mid-term evaluation of the PRIME Project aims to systematically assess the relevance, effectiveness, efficiency and sustainability of its four components, namely the Business Agenda 21, industrial ecology, environmental management system and environmental entrepreneurship modules.

The evaluation aims to determine the level of success of the project's simultaneous strategies aimed at several industry levels, namely industry associations, industrial estates, small and medium companies and environmental entrepreneurs. It will evaluate the project's level of attainment based on original key result areas, recommend enhancements in implementation and specific steps that will lead to sustainability. It shall also examine PRIME's current structural and policy interventions for its long-term impact and propose any specific actions to improve the project.

B. General Evaluation Framework and Environmental Context

1.0 General Evaluation Framework

The terms of reference of the Mid-term evaluation for the PRIME Project identified at least 11 specific objectives for the evaluation. These includes assessments of the project design, strategies, implementation and resource allocation; accomplishments and its sustainability/replicability; issues and constraints encountered; level of public-private sector partnership and participation of key stakeholders and project participants; and general prospects of continuity and relevance to the over-all conditions of environmental management and governance in the country. (Please refer to details in TOR for PRIME Project Mid-term Evaluation).

However, in this evaluation the 11 specific objectives are categorised into four (4) evaluation criteria. These are relevance, institutionalisation, replicability and sustainability. Relevance tries to relate the continuing significance of the Project's initiatives to key stakeholders and general environmental conditions of the country. Institutionalisation is premised on the principle that the Project is an input to facilitate action and commitments from identified institutions to strongly pursue environmental management by key institutional agencies and sectors.

Replicability centers on the adaptation and localisation of technologies, methodologies and systems being introduced by the Project and its acceptance by industry groups and partners to imbibe these new 'concepts' and 'approaches' to doing business. Sustainability ties itself in the development of favorable policy environment or reforms in existing institutional and policy regimes; sustainability of project interventions at the firm level; and development of critical mass of committed implementors and advocates in the private sector.

2.0 Environmental Context

a. Environmental management in the era of globalisation

The implementation of the Project has been influenced by external and local conditionalities that affected its potential impact and attainment of Project objectives.

Among the major external conditionalities that have an over-all effect not only to the Project but local initiatives to environmental management is the acceleration of global competition or globalisation of industries and economies. The acceleration of global competition has placed pressure to industries in developing countries to become more competitive and efficient in their production to compete with the more developed economies. In many instances, the competitive edge of developing countries such as the Philippines is tied to its cheap labor costs and inefficient production technologies. Local businesses tend to resort to further exploitation of cheap labour, maximisation of inefficient production systems and natural resource exhaustion as means to cut down production costs and make their products cheaper in the world market.

On the other hand, globalisation also precipitated developing companies to be more competitive by forcing them to adopt more efficient and environment friendly production activities. These has led to initiatives by global companies on adopting further environment-friendly practices such 'greening the supply chain', eco-labeling and development of improved and affordable cleaner technologies. At the local level, these has influenced and affected local industries and businesses with linkages to Philippine-based global companies who have adopted 'greening' policies in their business dealings. These have resulted to local companies 'cleaning' their acts in order to maintain their 'supply and market' linkages with these global companies. Indirectly these have accelerated adoption of 'cleaner and greener' production systems and technologies by export-oriented local companies such as electronics, semi-conductors, petroleum, agro-industrial, and tourism industries because of 'market forces'.

b. Information technology and information access

The spread of information technologies and access to various information media also provided opportunities for many countries to have immediate access to an infinitely broad range of information on new developments, technologies, advances and processes in environmental management and production systems. The spread and easier access to information have made environmental movements and experiences in other countries easier to grasp by developing countries. It has also led to stronger environmental movements and advocacies in different parts of the world that has led to general reforms in many developed country policies and international agreements.

c. Threats to international agreements and strengths of global environmental campaigns

However, the non-ratification of the Kyoto Protocol by the United States, and subsequently by Australia, New Zealand and Japan, has put at risk the several years of efforts to reduce green house gases. This has particular implications at the local levels specially in terms of donor agency assistance to developing countries for cleaner production technologies and environmental management. Others, though, view such development as further challenges to private sector enterprises to pursue and improved on the adoption of environmental management practices as such makes good business sense.

On the other hand, the forthcoming convening of Rio+10 Earth Summit in 2002 will again place into the mainstream global agenda the issue of the environment and sustainable development. The monitoring of commitments to the Earth Summit ten

years ago and further pressures on global efforts for sustainable development should trigger renewed dynamism into local environmental initiatives and experiences.

d. Changes in national leadership

At the local front, the changes in new leadership in the country means changes in existing environmental management and national development policies. The Estrada administration has pursued existing environmental policies that were adopted in the PA 21. While, the implementation of PA 21 remains to be seen, the new administration has yet to present itself with its new directive on environmental management. On going is the review of the country's implementation of the Philippine Agenda 21 in preparation for the Rio+10 UNCED summit in 2002 in South Africa.

e. Passage of Clean Air Act and Solid Waste Management Act

A major policy development in the country were the passage into law of two key environmental management laws – the Clean Air Act (RA 8749) and Solid Waste Management Act (RA 9003) and its Implementing Rules and Regulations. These two major pieces of legislation further establishes the need for improved environmental governance especially in industry. The importance of better approaches to cleaner production technologies and processes is strengthened, ironically, by the poor implementation of laws. The regulatory and police aspects of these two laws and the inability of mandated government agencies to enforce these new laws are trigger situations that emphasises the relevance of environmental management in the country. On the other hand, the regulatory element of these two laws provides opportunities for expanded demand by the private sector for environmental services and systems. These may include such cleaner production technologies, processes and equipments; environmental quality assessment and testing; laboratory tests for emissions and effluence; and other related services tied to compliance with the standards and benchmark requirements of the Clean Air and Solid Waste Management Act.

f. Stronger advocacies and new 'champions'

Similarly, the strength of local civil society movements and advocacies, specially on the environment, has ushered in a new level of awareness and understanding not only of the issues on environment but more so on demands for practical ways and means to address these issues at either the family, firm or farm-level. Such developments make fertile ground for the adoption of more efficient and cleaner technologies and systems.

Tied to the growth in public awareness and organised advocacies are the rise of 'champions' among policymakers and private sector/industry leaders in both general and specific environmental issues such as air pollution, garbage/solid waste management, climate change, forest denudation, community-based resource management, among others. The passage of the Clean Air Act and Solid Waste Management Act were outcomes of the strong advocacies made by civil society groups and local champions in the legislature, executive and private sector.

g. Weak economy and restrictive fiscal and incentive policies

While many external and local conditions has favored the adoption of cleaner production technologies and systems, the general conditions of the local economy and the ability of local companies, specially small and medium enterprises (SMEs) to absorb and infuse new capital for new production technologies remain a struggle. The continuing instability of local market conditions have inhibited many local companies and industries in installing and adapting to more efficient and clean production equipments. Coupled with policy restrictions and reduction in fiscal and tax incentives have further burdened decisions by local industries and SMEs into entering new production ventures and upgrades.

C. PRIME Project Background

In 1998 the Philippine government anchored its commitment to achieve its development targets identified under the 1993-1998 Medium-term Philippine Development Plan (MTPDP 1993-1998), on the basic idea that civil society, communities, firms, households, and organised citizens, can best define and work for their economic, political, social and cultural aspirations. A critical element of such commitment is the pursuit of greater roles for private citizens' active participation in national and local governance.

As a response to this effort, the United Nations Development Programme (UNDP) initiated the "Private Sector Participation in the Management of the Environment" (PRIME) which aims to promote participation by the private sector in environmental management and minimize industrial environmental impacts. The PRIME project also supports the implementation of the GOP's efforts to concretise its commitments embodied in the Philippine Agenda 21 for Sustainable Development. The Philippine Agenda 21 is the country's framework to attain national progress through sustainable development. PA 21 recognises that the key actors in sustainable development are the government, business and civil society.

The PRIME project was expected to initiate the introduction of cleaner means of production and adoption of environmental management systems in the business sector. These measures were aimed at enhancing the global competitiveness of Philippine firms through better production efficiency; meet international environmental standards; and, improve competitiveness of export-oriented firms. At the same time, PRIME also provided training and capacity building activities among government regulators, private sector participants and workers in the adoption of new technologies and environmental management systems.

The over-all objective of the project was to strengthen the role of the private sector in environmental management within the framework of less government regulatory intervention. This was envisioned to be achieved through four thrusts or modules: namely; a) development of a Business Agenda 21 that will serve as a blue print for the role of the private sector in environmental management and sustainable development; b) support to cleaner production and waste minimisation through the adoption of the industrial ecology in the development of industrial estates; c) promotion of industry self-regulation through the implementation of environmental management systems; and, d) encouragement of private investments in the provision of environmental services.

The Project's four major thrusts are divided into four modules, namely: i) Module 1 - Philippine Business Agenda 21; ii) Module 2 - Industrial Ecology; iii) Module 3 - Environmental Management Systems; iv) Module 4 - Environmental Entrepreneurships.

Key institutional arrangements are between the Department of Trade and Industry/Board of Investments, Department of Environment and Natural Resources-Environmental Management Bureau (EMB), Bureau of Product Standards, Philippine Business for Environment and other private sector and industry associations.

D. KEY OBSERVATIONS AND HIGHLIGHTS

1.0 Project-level Observations

a. Most of project module objectives have been achieved and gone beyond targeted outputs.

As a whole most of the project module objectives have been achieved or accomplished by the Project. In many cases, the Modules have even gone beyond the identified immediate objectives of their Modules. This is clearly seen in activities related to training and capacity building, advocacy and IEC, on-site assistance and support to pilot sites, database building and information sharing, and partnership building and networking.

A checklist of accomplishments of each module based on the identified immediate outputs and activities tied to these outputs in the PRIME project document shows that at least 80-85% of the identified activities have either been completed or for completion. (See PRIME Output Tables) . PRIME Project partners are pursuing a good number of these activities, specially EMS advocacy, education, training and database/information networking to the next level.

In the case of on-site assistance, pilot sites and private sector groups assisted by Modules 2, 3 and 4 have continued to pursue initiatives towards environmental certification or accreditation. Policy studies support and reform have also been completed and are now in the stage of adoption and advocacy with relevant agencies such as DTI/BOI and DENR/EMB.

b. Developed local models of innovative environmental management and production practices

On an individual module basis, Module 1(Philippine Business Agenda 21) has become a major input into the over-all implementation of the country's commitment to Agenda 21 and its objectives. In the current review and updating of the Philippine Agenda 21 commitments, BA 21 has been adopted as the business/industry sectors commitment for the entire country. Similarly, BA 21 agenda have been localised by regional industry associations, particularly Region 10 and 11, and have established their own system of monitoring and consultation on their respective BA 21 commitments.

Modules 2 (industrial ecology) and 3 (environmental management systems), the pilot sites supported by the Project has contributed to local practices in local environmental management at the firm level for both industrial estates and small/medium enterprises. The lessons and experiences of these pilot sites are considered important contributions

to the localisation of concepts of industrial ecology and adoption of environmental management systems (EMS) for SMEs. However, these on-site models for industrial ecology and EMS for SMEs have to have a regional counterpart since most of the on-site pilot models for Modules 2 and 3 are located in Metro Manila and Luzon.

Likewise, a larger segment of the country's industrial production activity and future economic growth strategy is in the agriculture and agro-industrial based production. These areas have significant contribution not only in the economy but also on environmental pollution issues such as water quality, leaching, chemical and pesticide use. It also covers a good number of the labor force and poor sectors of the rural areas where environmental standards and its enforcement are much weaker than in the urban areas of Metro Manila and Luzon.

c. Created critical awareness and acceptance from key stakeholders and other sectors

A major element of the Project's achievement is the mainstreaming of the concepts of industrial ecology and environmental management systems into the local consciousness of key Philippine industry sectors and associations. The information, education and communication campaigns, high quality information materials, and training and capacity building activities sponsored by all of the Project's modules have created a critical mass of advocates and practitioners on environmental management and industrial ecology in the private sector. Its credibility and high-profile also provided opportunity for the Project to participate and provide critical inputs in the formulation of the Clean Air Act and Solid Waste Management Act, and department rules and regulations of the DTI, DENR, and GFIs such as the Land Bank and Development Bank of the Philippines. As earlier pointed out, BA21 has been adopted as the Philippine business/private sector contribution to the country's PA 21 commitments.

d. Created expanded network and partnership arrangements with donor agencies, industry associations and other stakeholders on environmental management.

Such effective and high-level of awareness generated by the Project's different module accorded it the necessary credibility and acceptability to its target stakeholders as well as building stronger partnership arrangements and networks with other stakeholders such as policymakers, legislators, donor agencies (i.e. Asian Development Bank, Japan's Green Aid Plan, USAID's IISE, US-AEP, CIDA, CDG) and international organisations (i.e. World Business Council for Sustainable Development, Asian Productivity Organisation, etc).

In the case of Module 1, industry association members under PBE expanded to include 73 industry associations, including 3 regional associations based in Cebu, Cagayan de Oro and Davao. For Module 2, Project participants in the pilot industrial estates established an inter-industrial estate forum as a venue for information exchange and sharing of environmental management practices and experiences.

e. Developed benchmark and baseline database information systems and Internet access.

A critical component of each of the modules, specially Modules 1, 2 and 4, is the development of a baseline information system on clean production systems, technologies, processes, rules and regulations, background information on companies, studies and lessons learned. These information systems and access to these information systems by participants to the Project are critical to the strengthening not only of awareness of Project participants but also their commitment to pursue adoption of clean technologies and environmental management systems. The Project modules were able to establish a basic database and information structure on by-products and waste generated by local companies, industry associations, technologies, systems and other relevant information needed by local industries and SMEs.

f. Establishment of network of environmental practitioners, EMS technical evaluators/auditors and trainers

The Project was able to development and training a core of private-public sector environmental assessors/evaluators, environmental laboratories and agencies that would serve as benchmark references on EMS standards and quality. It shall also facilitate the processing of local companies towards certification and EMS adoption with a core of trained professionals on EMS and available training modules/support services that would be provided by these groups. These include the Philippine Institute of Certified Public Accountants (PICPA) for training in environmental accounting and cost analysis; Philippine Association of Environmental Assessment Professionals (PAEAP) for EMS and ISO 14001 certification; and, Integrated Chemists of the Philippines for environmental laboratory registration/certification, among others.

g. Opened-up more flexible relationship (compliance to environmental rules and requirements) between private sector and regulatory agencies, e.g. DENR and DTI.

The project offered venues for the private sector and government regulatory agencies such as the DENR to establish a more open partnership in the compliance of environmental rules and regulations particularly EIA system. Through the project, small and medium enterprises (SMEs) have been able to comply with DENR rules on ECC and emission/waster treatments through the adoption of EMS system introduced by the Project. Also dialogue between the agency and private sector was further facilitated that contributed to the DENR's Philippine Environmental Partnership Programme (PEPP) where incentives as well as phased compliance to environmental standards and rules are provided to the private sector.

h. Institutionalisation of environmental support structures for private sectors in government regulatory bodies.

The Project assisted in the capability building of the DTI/BOI's Environmental Unit (EU) and facilitated the creation of a support unit in DENR/EMB, i.e. Small and Medium Enterprise (SME) Desk, that is focused on providing support to private sector/industry groups on environmental management systems and services. Such a unit also helped established a more open relationship between the agency clientele thereby creating more opportunities for partnership and cooperation than that offered by traditional command and control powers of the agencies.

2.0 Specific Module Observations

a. Module 1: Philippine Business Agenda 21

Module 1 of the Project, developing a Philippine Business Agenda 21 under the Philippine Business for Environment (PBE), maybe considered one of the more successful private-public partnership arrangements initiated in the country in the field of environmental management. The BA 21 campaign of the Project created a groundswell and critical mass of advocates and awareness among industry associations and regional groups on environmental management and clean technologies when there was very limited effort on this matter.

As the frontline networking and linkage building component of the Project to the private sector, Module 1 more than achieve what it was intended to be. Among the key achievements reached by Module 1 are the expanded adoption of BA 21 by industry associations and regional groups; strengthened commitment to BA 21 and actual implementation of commitments by signatories; established, maintained and promoted database support information for waste exchange and technology referral support; and, enhanced institutional credibility and acceptance of PBE among key stakeholders and policymakers/donors.

As a result of these achievements, PBE and BA 21 has been accepted and integrated as the private/industry sector commitment to the Philippine's Agenda 21 Plan. The module has also established and expanded its tie-up and linkages with global organisations such as the Asian Productivity Organisation and World Business Council for Sustainable Development.

At the local level, the BA 21 formulated under the Project has resulted to commitments by more than 70 industry associations from the major centers of the Philippines on the adoption of clean technologies, compliance with environmental regulations and adaptation of environmental management systems. These commitments were approved and published in early 2000 as Business Strategies for Sustainable Development document under the Philippine Business for the Environment.

Participants and signatories to the BA 21 document include major industry and sectoral associations that have committed and participated to pursue and implement the targets identified by the 73 industry associations. They include SMEs, light and heavy industry groups, hotel and food processing, agro-industrial, electronics and semi-conductors, paper and packaging, vehicle and motorcycles, handicrafts, jewelry, building contractors and suppliers, real estate and subdivision developers, power and water utilities, local and regional chambers of commerce and industries, industrial estates, wood producers, small mining and major mining companies, and local professional associations, among others.

The Module has also actively participated in major policy making and legislative advocacies and campaigns on environmental management. These include inputs to the Congressional committee hearings on the Clean Air Act and Solid Waste Management Act. The Module also established a national roundtable policy advisory group as a venue for continued policy advocacy and discussions on environmental management for the private sector.

The module remains as the Project's key frontline module in drawing-in and expanding its reach towards other industry associations and engaging them to integrating environmental management and clean production systems into their activities. This remains the module's present and long-term comparative advantage to the Project.

b. Module 2: Industrial Ecology

Module 2 on industrial ecology started out slowly in the first two years of the Project's implementation. A good part of the delay was due to the relative novelty of the concept of industrial ecology in the Philippine setting which required a more intensive internalisation and understanding from the Project's key stakeholders and implementers, i.e. BOI, and the establishment of mechanisms and processes for selecting participants to the Module. This was also coupled by the administrative changes in the Module's project management structure.

However, despite these initial delays, the industrial ecology module was able to overcome these constraints. Among the major accomplishments reported by the Module are the piloting of an inter-industrial estate by-product exchange and waste recovery programme in five (5) industrial estates in Laguna-Batangas and an eco-industrial park programme with a major petrochemical corporation (Philippine National Oil Corporation) in Bataan (original Project target was only 1 pilot site); completion of a policy study and action plan on industrial ecology in industrial estates; link-up with regional and international groups on industrial ecology; and initiated steps in introducing 'green technology policies' in existing government industrial estate development and registration programmes. Currently, the Module is now pursuing an integrated resource recovery facility system as an enhancement of the by-product exchange and waste recovery programme initiated by the Module.

As a key on-site technical assistance component, the Module plays a critical role in presenting practical and appropriate practices and lessons of industrial ecology application in the Philippine context. Experiences from on-site activities in the 6 pilot industrial estates serves as concrete basis and inputs into strengthening and redefining policy reform initiatives that were identified in the Module study on promoting industrial ecology, particularly the Philippine Investments Priorities Programme; PEZA guidelines for industrial estate development and management; IRR of RA 6969 (Toxic and Hazardous Waste); and customs and tariff policies by the Department of Finance (DOF).

c. Module 3: Environmental Management Systems (EMS)

The other key on-site technical assistance component of the Project is the EMS application for SMEs. While Module 2 on industrial ecology tackles the large and more developed industrial production activities, Module 3 tackles the largest component of the Philippine industrial sector --- small and medium enterprises. Highly diversified, scattered and employs more than the industrial labour force of the Philippines, SMEs has been a key figure in the development strategies of the Philippine government for the last two decades. Several key policy legislation and incentive packages such as financing and credit facilities targeted for SMEs have been mandated to encourage and propel SMEs to be more productive contributors to the country's national development goals. Such focus remains not only because of policy programmes adopted by the

current administration but also because more private sector groups and individuals are establishing SMEs as a means of livelihood.

This clearly establishes the relevance of the Module presently or in the future and thus offers it a lot of challenges to successfully implement. Within this context, the Module has achieved success in the adoption of EMS in 9 pilot SMEs representing key sectoral industries under this category. Of this total, five have decided to go for ISO 14001 while the rest of the pilot companies have continued implementing and integrating an EMS programme in their operations.

Likewise, the module has also developed, through a systematic and consistent training and capacity building programme, a local core of auditors through an environmental auditor's registry and registration criteria for EMS accreditation and ISO 14001 certifying bodies. It has also started groundwork for the establishment of eco-labeling criteria and processes with an independent third body.

d. Module 4: Environmental Entrepreneurship

The Project's module on environmental entrepreneurship can be seen as an outcome or product of the three (3) modules on Business Agenda 21, industrial ecology and environmental management systems. Module 4 was a component directed at harnessing the potential for developing environmental enterprises and demands for environmental technical services such as environmental analysis that would arise from the propagation and adoption of the concepts of cleaner production, industrial ecology and EMS/ISO14001 certification generated from the Project's 3 other modules. Consequently, the module's success is highly dependent to the level of enthusiasm and on-site interests triggered by the 3 Project modules. Likewise, Module 3 serves as an area for establishing parameters for environmental compliance arrangements between the DENR and industry groups, specially SMEs, and establishes a technical basis for such partnership arrangements. In this endeavor, the achievements of the on-site pilot activities from Module 2 and 3 and the broad awareness achieved and interest by industry from Module 1 sets the stage for such cooperative arrangements that can be pursued under Module 4.

The achievements of module 4 should then be related within this framework. Among the key achievements of the module include support for a more flexible compliance, i.e. industry-based self-regulation (together with Module 3), arrangement on environmental standards and regulations between industry and the DENR with the establishment of an SME desk in the DENR/EMB and compliance monitoring; improved information access to service providers, environmental rules and requirements, financial sources, and technologies on cleaner production and pollution prevention through an Internet based database/information system for SMEs; improved environmental quality control and compliance with certification of private laboratories; and, refinements in the methodology for establishing benchmark settings of local environmental standards (e.g. DAO 98-63).

Other accomplishments of the module were the training and organisation of a corps of local assessment teams from the DENR-EMB in partnership with the Integrated Chemists of the Philippines. The module also completed policy studies on developing incentives for environmental entrepreneurship and assistance process in laboratory accreditation and quality assurance.

E. IMPLEMENTATION ISSUES AND CHALLENGES

1.0 Module 1: Philippine Business Agenda 21

As stated earlier, Module 1 remains as a key component of the Project in trying to establish a critical mass of industries adopting cleaner technology and environmental management systems in the country. Several key issues and constraints that would affect its continued implementation and expansion to the next stage however confront it. These issues include: a) weak monitoring of BA 21 commitments by industry association members; b) sustaining level of information sharing and exchange on new initiatives and experiences within and among industry members/stakeholders; c) sustainability of PBE as an organisation; and, d) BA21 as leverage mechanism to assist SMEs.

a. Weak monitoring of BA 21 commitments by industry association members

While BA21 commitments committed to by 73 industry associations have been formalised and documented into a Business Strategies for Sustainable Development report, fulfillment of these commitments by the associations and its individual members need to be strengthened. A follow-up mechanism or industry-level monitoring of the associations commitment need to be establish in order to establish levels of achievement of industry association targets. The module relies on industry association self-monitoring and reports to confirm industry association deliverables based on their BA21 commitments.

Likewise, industry association commitments to BA 21 needs to be regularly revalidated following annual changes in leadership of industry association members to ensure continuing commitment of the associations to BA 21 targets.

b. Sustaining level of information sharing and exchange on new initiatives and experiences within and among industry members/stakeholders.

The broad range of industries who committed to BA21 were largely brought about by the effective and high-quality of information, education and advocacy and networking campaigns initiated by the Module through PBE has ensured that it reaches a wide audience of the private sector. Because of these awareness, many of the industry association members now require more specific types of information that would address their new found understanding on cleaner production technologies and environmental management. Such information includes assistance on appropriate technologies, environmental assessment, pollution prevention devices, workable models of clean production, etc.

c. Sustainability of PBE as an organisation

The initiatives and successes of the module are inherently tied to the effectiveness and sustainability of the PBE as the main conduit organisation of the Project with industry sector groups. While PBE was initially established in 1992 by a consortium of the biggest and largest corporations in the country, its expansion and growth was greatly nurtured by the Project. At the same time, the module succeeded because of the existence and credibility of PBE with the private sector. Thus, the PBE and BA21 module is a natural fit. For the module to continue its gains and expand to cover other

private sector groups, especially regional associations and SMEs, the PBE needs to be sustained beyond the Project life.

d. BA21 as leverage mechanism to assist SMEs.

BA 21 has been accepted by the broader sector of society as the private sector's commitment to achieving sustainable development. The Philippine Council has acknowledged BA 21 for Sustainable Development as part of the country's Philippine Agenda 21. However, the industry association membership of BA21 has largely been tied to the large and medium industries normally based in Metro Manila and major industrial centers of the country such as Davao, Cagayan de Oro and Cebu. SME's while represented need to be further integrated into the BA 21 programme in order to cover the largest sector of the country's industry/private sector groups. BA 21 can serve as a starting point to enable SMEs, specially at emerging agro-industrial regional growth areas of Cagayan de Oro, Davao and General Santos, to integrate environmental management and clean production principles in their operations as well as resource and information exchange venue on environmental management and clean production between large industry associations and the country's SMEs.

2.0 Module 2: Industrial Ecology

a. Weak policy framework on adoption and implementation of industrial ecology principles for industrial parks and estates

The policy study conducted by the module pinpointed the need to strengthen existing policy regimes to support integration of IE concepts and principles into the mainstream development agenda of the country. Currently environmental policies on industrial estates are largely limited or non-existent. While the country's Investments Priorities Plan laid down certain incentives for environment-related enterprises and services, these however, are very few and largely constricted by changing fiscal priorities by the GOP.

Consequently, any substantive changes in industry incentive policy such as market-based instrument and regulatory reforms that would integrate IE principles and concepts would face "stiff opposition". However, a favorable environment that would pursue and support IE concepts and policies in at least the country's industrial estates would greatly strengthen the arguments for IE's benefits and contribution to efficiency and competitiveness of local industries. These include policies dealing on incentives for market-based instruments; tariff and valuation costs of custom duties on waste materials in industrial estates; loosening up of fiscal and financial restrictions/constraints for industry adopting clear technologies; amendments on RA 6969 on transport of toxic and hazardous waste. A particular focus would be effecting specific changes in the PEZA's current industrial estate locational and development procedures.

b. Establishment of local 'working' industrial ecology model

The enthusiastic adoption by 6 major industrial estates and complexes of the industrial ecology concepts and principles shows the great potential and acceptability of the concept of a close-loop of industrial estates and production operations. However, the concept of IE is still at its nascent stage and will need to be fully experience and applied to achieve a critical level of acceptance and credibility. Thus, the continuing support of the Project through the module of the pilot IE industrial estate sites is critical

to show a working model that would serve as a showcase and concretisation of the IE principle at the ground level. Similarly, continuing research on the possible use of by-products generated from firms and their potential market opportunities shall help facilitate the acceleration of IE in the country. Research partnership with the Department of Science and Technology; academic research institutions, i.e. UP, Ateneo, and MIT; private organizations, i.e. Integrated Chemist of the Philippines; and, the IE firms can be established to support these research endeavours.

c. No regional IE pilot counterpart

Likewise, the IE pilot sites did not have regional counterparts in either the Visayas or Mindanao. While it maybe argued that the IE pilot sites, all located in Luzon, were 'volunteers', a regional mix coming from either Visayas and Mindanao would have given a broader perspective into the localisation and adaptability of IE in other industrial settings in the country. This is specially important when we consider that a good number of regional and provincial development plans in these regions have identified the establishment of industrial estates/ecozones, in their areas. In fact, the first industrial estates and ecozones in the country are located in Cebu (Mactan Export Processing Zone) and Misamis Oriental (PHIVIDEC Industrial Estate). This is the similar situation for Module 3 on SMEs adoption of EMS and ISO 14001 certification.

d. Increase viability of waste exchange arrangements and improvement in the quality of by-product databank and its access/utility to stakeholders.

A practical and firm-level application of the IE concept and principle is the by-product exchange (BPx) system introduced by the module in the pilot IE sites. While it has generated data and information on the type of by-products produced by member firms of the pilot IE estates, the viability of the BPx remains to be seen. Questions of scale, availability, transport, quality and quantity of the by-products make it difficult to maximise the BPx system. At the same time, the type of products and possible uses of these by-products to those who need them is also needed to establish a viable market for utilising by-products and thereby support the close-loop principle of IE. The research and development study proposed in the policy study conducted by the module listed several areas of research that will greatly enhance the viability of the BPx system. These include developing new materials that minimise the use of virgin natural resources, new manufacturing and recycling processes, and pilot application of IE tools such as environmental and natural resource accounting and dynamic input-output modeling.

e. Mainstreaming of industrial waste/ecology principles to broader industry sector/audiences

The passage of the Solid Waste Management Act and the continued prioritisation by the GOP on industrial estates/ecozone development as an industrial development strategy will only highlight the relevance of pursuing industrial ecology principles among industrial estates. Very limited policy and incentives are directed towards integrating IE concepts and principles in the country's industrial, fiscal and environmental rules. The mainstreaming of IE to broader industry sector/audiences will generate the necessary groundswell and support to push for the needed policy reforms on industrial ecology. Module 1 shall play a critical complementary, if not integrative, role in this aspect alongside the establishment of local 'working' models of IE in industrial estates earlier stated in this section.

3.0 Module 3: Environmental Management Systems

a. Lack of policy incentives and market motivation for SMEs to adopt EMS.

A major disincentive to SMEs adoption of EMS is the lack of motivation for them to integrate EMS into their production activities despite the presence of environmental rules and regulations. This is primarily due to the fact that environmental enforcement of these rules is weak and therefore is applied sparingly by local regulatory bodies. Likewise, penalties and charges are not applied consistently and fairly.

Such rules can easily be evaded with 'proper' arrangements with local regulatory agencies. It is thus, easier for SMEs to evade detection, and if caught, forgo penalties through unofficial means. At the same time, there are no existing policy incentives such as fiscal and capital that assist SMEs to undergo EMS adoption, much more ISO 14001 certification. In fact, some SMEs assisted by the Project have expressed concern that adoption of EMS has ironically resulted to them being penalised by regulatory agencies such as the DENR and LLDA.

Market demands, likewise, have not made it a requirement for SMEs, who mostly service domestic needs and goods, to produce goods and services that have been processed under environmentally-acceptable production processes at an acceptable proportion to make it profitable and feasible for local SMEs to engage in.

b. Absence of critical mass of SMEs who has adopted EMS/ISO 14001 certification

The project has successfully supported the process of EMS adoption by nine (9) pilot SMEs. In the course of its support, the Module has provided further assistance to five (5) others who have committed to achieve ISO 14001 certification in the next six months while the other four (4) pilot sites have continued the integration of EMS into their production processes.

The completion of ISO 14001 certification of the Module 3's pilot SMEs is a critical activity that must be consummated by the Project in order to establish a benchmark and model for SMEs. The same is true for continuing the support for the other 5 SMEs to complete the adoption of EMS in their production processes. The 9 pilot SMEs for EMS and ISO 14001 certification of Module 3 must be seen as the foundation of a critical mass of SMEs with EMS/ISO 14001 certification for the country's SMEs.

c. Weak information access to environmental rules/policies by SMEs.

A key element in the successful adoption of EMS by SMEs is their access to environmental rules/policies and information on EMS. The formation of the SME Desk by the Project's Module 3 and 4 showed that there is a general ignorance on the part of SMEs on environmental rules and regulations being implemented by regulatory bodies. This may be seen as a major factor contributing to the reluctance of SMEs to adopt EMS in their productive processes aside from market considerations. There is a need to popularise, simplify and rationalise these rules and regulations to target stakeholders by the DENR, DTI, LGUs, DOLE, and other agencies to make them more attractive and adaptable.

d. Strengthening of EMS accreditation system by PBS and auditing systems; and institutionalisation of auditors registration by PAEAP

The other half of the incentive for the adoption of EMS and ISO 14001 certification is the cost involved in the process of certification or EMS adoption. This is particularly brought about by the need to have external auditors and certifiers to conduct and oversee the process. The Module has successfully facilitated the training of EMS and ISO 14001 auditors and certifiers, however, the process of accreditation of local auditors, i.e. PAEAP, has yet to be completed. While the process must be a private sector initiative, especially by the auditors association, this element plays a critical role in accelerating the adoption of EMS by SMEs by bringing down the cost of adoption and certification to manageable levels.

e. Technical capacity for eco-labelling programme implementation

A major output of the Module that is at the initial implementation stage is the eco-labelling programme. While an independent organisation, i.e. Clean and Green Foundation, has been identified the eco-labelling programme for 'green products and services' is still at the incipient and technical capacity building stage. These means that the whole process must establish a technically credible, transparent and open process that will be accepted by key stakeholders, most specially the private sector and regulatory agencies. Aside from this, the whole concept of eco-labelling like the concept of industrial ecology has to be established critical awareness and acceptance by local consumers. Without a critical mass of consumers for 'green products and services', demands for eco-labeled products as well as local adoption of EMS and ISO 14001 certification will be weak.

4.0 Module 4: Environmental Entrepreneurship

a. Weak policy environment for incentives for entrepreneurship.

As pinpointed in the policy study produced by the Module, there are not enough incentives being provided by government, i.e. fiscal and capital, for environmental entrepreneurship to grow in the country. If the adoption of EMS by the private sector is seen as a cost-center for local businesses, the same is true for environmental enterprises/activities, i.e. environmental laboratories and EMS/ISO 14001 auditors accreditation. The regulatory provisions of the Clean Air and Solid Waste Management Acts provide a market for environmental quality analysis and monitoring. On other aspects, the regulatory mechanism and the capacity for government to implement such regulatory standards and benchmarks, makes it difficult for environment-related enterprises to develop.

However, these regulatory-based functions of environmental policy merely creates a 'fear' atmosphere among the private sector rather an impetus to adopt environment-friendly technologies or production systems because it benefits them, economically and socially. Under such an atmosphere of 'fear', private sector enterprises would rather hide and evade compliance rather than integrate EMS into their production activities that would lead to the creation of a market or demand for environmental technologies, equipments and services.

b. Enhanced training competence of professional assessors to conduct local laboratory recognition and certification processes.

Continuing capacity-building activities for private professional assessors, i.e. Integrated Chemists of the Philippines (ICP) on laboratory recognition and certification will be needed to address the projected increase demand for environmental quality assessment and analysis services due to the implementation of the Clean Air and Solid Waste Management Acts. As pinpointed by the policy study report sponsored by the Module on environmental assessment and laboratories services such as quality assurance and higher levels of quality assessment for other environmental indicators or parameters not covered by existing regulations. This will make the country's quality assessment processes not only holistic and up-to-date with international standards but also respond to expanded nature of environmental quality monitoring needed in the country.

c. Institutional readiness to sustain environmental laboratory recognition process

The sustainability of the recognition process for environmental laboratories supported by the Module is highly dependent on the capacity of the DENR/EMB, as the principal certifying body for environmental laboratories, to sustain and refine the implementation of whole process. There is a persistent institutional limitation by the DENR to expand the number of regularly trained staff and resources to support the environmental laboratory certification process. Most of the trained staff of the DENR/EMB is located in Metro Manila, while a limited number of regional staff was trained on certain aspects of the whole process. There is already a growing demand from private laboratories for certification as seen from the number of applicants to the DENR/EMB. While the Module was able to assist around twenty-eight (28) laboratories out of the total 44 applicants for recognition, there is still a large number of assistance needed to process the applications. Likewise, the same recognition process has yet to be adopted by other regulatory agencies such as LLDA.

d. Adaptability and consistency of existing environmental standards and benchmarks

As identified in the policy study for the Module, there is a need to expand the number of environmental parameters covered by DAO 98-63 to cover relevant indicators on water quality assessment. These shall also include the updating of the types of analyses and technical processes conducted to conform to international standards. There is a need to revise and up-date DAO 98-63 to integrate these factors into the whole system and make the environmental quality processes consistent and up-to-date.

e. Integration and maximisation of information database and product services with target service clientele

Module 4 was able to establish its own database system that covers environmental rules and regulations for SMEs, technologies and processes, resource and service provider networks, and linkages with markets and products. However these have to be expanded to accommodate more specific inquiries for technology and production equipments by SMEs and with existing databases of the other Modules and other sources. There is a need to maximise the integration and matching of these information databases with the SME clientele.

F. KEY RECOMMENDATIONS AND POSSIBLE DIRECTIONS

1.0 General Directions and Recommendations

The Prime Project was premised on providing strategic inputs to the country's implementation of its Agenda 21 commitments and mobilising private sector partnership in environmental management. After three (3) years of implementation the Project has accomplished most of the objectives and targets it has set for when it was originally proposed.

However, the impact of improving environmental management and the role the private sector plays in environmental governance alongside mandated local and national regulatory agencies is a continuing process that must be continued and sustained.

What the PRIME Project has done is lay down the premises for the participation of the Philippine private sector in managing the environment in various degrees in different areas. Where it will lead to will determine the extent of the Philippine businesses can contribute to managing the country's deteriorating environmental conditions.

The premises for PRIME's future direction before its closing date in 2002 and possible continuity of the initiatives beyond its project life shall be based on a framework of sustainability, institutional edge, focus and strategic impact. Strategic impact for the Project's future directions is viewed in terms of creating favorable conditions that would institutionalise and maximise the successes and experiences gained from the implementation of the Project's 4 Modules. Sustainability shall be based on the capacity of strategic institutions or agencies to carry on the initiatives and processes developed by the Project beyond the Project life. On the other hand, focus is directed at pinpointing and guiding support to clearly identified target audiences/participants with verifiable and attributable outcomes. And finally, institutional edge shall be based on the inherent advantage, i.e. expertise and credibility, of UNDP and other key institutional actors/partners to deliver and achieve Project objectives.

Based on these premises, the Project's proposed future directions are:

a. Mainstreaming IE and EMS policy reform work in key national agencies

One of the major successes of the Project was laying down a thorough analysis of the policy issues to create a favorable environment for the promotion and institutionalisation of the concepts and principles of industrial ecology, clean technologies and environmental management processes in local businesses and productive activities.

However, efforts by the Project to realise actual changes in policy have merely begun and needs to be completed in order to integrate the lessons and insights obtained from the Project into the operational rules and regulations of key national implementing agencies such as the DTI/BOI, PEZA and DENR. These include policy reform initiatives that are doable and within the existing mandates of these agencies are:

DTI/BOI

- 1) Further institutionalization of formulated 'Greening BOI procedures';
- 2) Strengthened incentives and fiscal support for environmental enterprises and adoption of clean production technologies and equipment;

PEZA

- 1) Location and development policies for industrial estate and ecozones;
- 2) Consolidated environmental management plans/standards for industrial estates/ecozones and their individual firm locators

DENR

- 1) Simplification of EIS/EIA processes for SMEs through industry-based or sectoral environmental management agreements;
- 2) Updating of DAO 98-63 to include key environmental parameters on water quality and improved technological processes/analyses;
- 3) Development a checklist for industry level environmental benchmarks and standards for environmental monitoring and compliance;
- 4) Changes in IRR of RA 6969 on Handling and Transport of Toxic and Hazardous Wastes relaxing inter-firm transport within industrial estates.

b. Expanding advocacy activities to broader audience and developing local champions for IE and EMS for SMEs

Likewise, policy reform work for the Project shall also be based on active and continuing advocacy and education/communication campaigns throughout the sector as well as with key policy makers and other key stakeholders. These means expanding awareness and education efforts to go beyond core industry association members but to involve the general public. These shall have to be complemented by the development of local champions for industrial ecology and EMS for SMEs coming from the private sector while strengthening existing advocacy champions among policy makers, NGOs, and advocacy groups. The main conduit and staging venue for these efforts shall be the Philippine Business for Environment (PBE).

c. PBE as main networking, advocacy and information network center for industrial ecology and environmental management

Critical to the efforts on policy reform and expanding advocacies for IE and EMS is the role played by PBE as the main networking, advocacy and information center for industrial ecology (Module2) and environmental management (Module 3). Being the most accepted and credible representative of the private sector that are committed to the vision and principles of industrial ecology, clean technologies and environmental management, the PBE shall play a critical role in reaching out not only to a broader segment of the industrial and private sector but also to the broader general public.

As main networking venue for IE and EMS, PBE is in a position to reach out to other industry associations in other sectors, and more importantly, other regional growth centers. In this context, strengthening regional networks such as Cagayan de Oro, Davao and Cebu shall be crucial and expansion to new regional networks in key growth centers, particularly General Santos City, Iloilo City, Zamboanga City and Angeles-Clark-Subic zones.

Likewise, PBE shall serve as the main information hub for interconnectivity of PRIME's 4 modules database and information networks and web-based links to other networks from the DENR, DTI, BOI, PEZA, DOST, UNDP, UNIDO, UNEP, etc. This network shall be openly accessed not only by members of PBE and industry associations but to all interested in industrial ecology and EMS. Support by the Project on this integration of databases and information systems into a web-based interconnectivity will be a main ingredient of PRIME's future directions.

While PBE shall be the main frontline private institutional network for the initiatives supported by PRIME, key institutional arrangements established by the Project shall remain. These include the DTI/BOI and PEZA for Module 2 and DENR for Modules 3-4. Likewise, partnership arrangements between PBE and other technical, research and training groups such as the PICPA, PAEAP, and Integrated Chemists of the Philippines shall be crucial (*Please also see Item f of this Section*).

d. Completion of working models for industrial ecology and EMS/ISO 14001 certification for SMEs

The completion of the pilot industrial ecology sites and ISO 14001 certification process for SMEs assisted by the Project is another critical Project component activity in the future. The completion of the process being undergone by these pilot sites and firms will produce the necessary 'working' models for industrial ecology and EMS/ISO 14001 SMEs serve as guidepost for succeeding initiatives and adoption of industrial ecology and EMS in the local context.

The Project's assistance to these future working models for industrial ecology and EMS for SMEs can be provided through a separate technical assistance fund grant that will be based on individual commitment agreements in order to ensure completion and adoption. Such individual commitment agreements shall be between the specific pilot firm or IE site and the Project were levels of commitment, responsibilities and deliverables over a defined period of time (e.g. 12 months) and agreed upon monitoring system.

e. Development of a regional pilot industrial ecology model with an agro-industrial base

As pointed out earlier, most of the pilot sites developed by the Project were mostly industrial estates covering light and medium industries based in Luzon. However, a good number of industrial estates and industrial clusters/zones with both forward and backward integration with support industries in their localities are present in other regions particularly Visayas and Mindanao.

Many of these industrial clusters are agro-industrial based production enterprises that have both national and regional impacts on the economy and environmental management, i.e. water pollution, solid waste, pesticide and fertilizer usage. Likewise, a sizeable portion of the country's enterprises, population and resources such as land and water are focused on these agricultural and agro-industrial based production areas, especially in Mindanao. In this context, a regional model for IE in an agro-industrial setting probably in Mindanao maybe a good potential on-site assistance target should a second phase for PRIME be implemented.

f. Integration of all Project technical modules, resource support bases and partner organisations into a technical resource consortia or network for industrial ecology and environmental management

One of the clear achievements of the PRIME project is the development of high-quality education, training and production materials on industrial ecology and environmental management. Similarly, it has also developed a competent and capable corps of technical assessors, EMS evaluators, trainers and resource persons that are now being provided to interest stakeholders and private sector groups. However, these technical resource pool and materials are all scattered and diffused aside from being unsystematically coordinated and facilitated.

It is proposed that all these technical materials, training modules, curricula and resource persons/organisations be consolidated into a technical resource consortium or network on industrial ecology and environmental management. Such a consortia or network becomes the main technical resource support service network for private sector and industry associations and SMEs on industrial ecology and EMS.

Through a common memorandum of agreement the various partner professional organisations developed and assisted by the Project such as the PAEAP, ICP, PCAPI, PICPA will formalise their groups as a technical resource pool or consortia on industrial ecology and environmental management. The consortia can also have standing technical partnership agreements with national agencies such as the DOST, DENR, DTI, PEZA, LGUs and other relevant government agencies and academic and research institutions for the purposes of sharing a common resource base and knowledge.

g. Consolidation of all module implementation units into a central Project technical assistance support unit

While it was necessary to establish four (4) separate project implementing units (PIUs) that would oversee the application of the new concepts and principles being pursued under the project, the gains and headway achieved by PRIME Project's module have laid down the basis for a more focused and streamlined PRIME Project Management Unit. Such a streamlined PMU shall be focused on provision of technical services to the key institutional partners who shall all be taking leading roles in the initiatives and activities related to the Project's four (4) modules. These include PBE for Module 1; BOI/PEZA/DENR for industrial ecology; DENR/SMEs for Module 3; and DENR for Module 4.

Likewise, PMU shall provide among others the following:

- Direct technical assistance and focused support on policy reform work at the BOI, PEZA and DENR;
- On-site technical assistance to individual pilot sites/firms completing ISO 14001 certification and industrial ecology module;
- Information networking and accessing of needed material and inputs by key industry associations;
- Focused policy studies on environmental quality benchmarks and indicators for specific industry sectors;
- Mobilisation of key technical resources and access to resources from donor agencies and other relevant technical agencies;

- Networking and linkages with international and regional associations; and,
- Coordination of integrated education, information and communication campaigns for IE and EMS.

2.0 Specific Directions and Recommendations

a. Specific Directions by Modules

i. Module 1: Philippine Business Agenda 21

- Expanded programme for participation of other industry associations to BA 21 and other regional growth areas, e.g.. GenSantos, Batangas, Central Luzon/Clark-Subic;
- Environmental technology information and skills;
- Expansion of partnership links/tie-ups with other agencies, e.g. DOST, UNEP, UNIDO, for info exchange and resources on clean production technologies;
- Upgrading of information resources database and access/linkages with other PRIME component databases;
- Support to strengthen PBE sustainability;
- Development of monitoring and reporting mechanisms by industry associations to BA 21; and,
- Focused technical assistance service by PBE to member association and BA 21 supporters e.g.. technology assessment, financing, environmental cost accounting, waste exchange facilities/tie-ups.

ii. Module 2 - Industrial Ecology

- Integration of industrial ecology practice with rest of community and involvement/role of LGU;
- Strengthening of institutional policy support to adoption of industrial ecology principles/module e.g.. BOI and PEZA;
- Strengthening and regularisation of BOI-EU unit;
- Expansion of application of industrial ecology to agro-industrial setting;
- Conduct of in-depth study for market potential for by product recovery exchange/practices;
- Review/resolution of key policy conflicts on waste transport e.g.. RA 6969/Customs Tariff code.

iii Module 3 – Environmental Management Systems

- Development of focused EMS module for specific SME sector;
- Expanded technical information and training support to SMEs on production technology, processing/assessment, and best practices;
- Institutionalisation of BPS-PAEP partnership; BPS accreditation of certifying bodies;
- Eco-labeling promotion and adoption on focused materials/products.

Iv Module 4 – Environmental Entrepreneurship

- Institutionalisation and strengthening of SME desk information desk and EMB accreditation staff;
- Manualisation of environmental quality assessment of laboratory recognition process for international recognition; and,
- Institution of fiscal/policy incentives to private sector laboratory certification/enterprise development.

b. Other Recommended Actions

Other recommendations for PRIME and a possible second phase are qualified based on the core evaluation areas of this mid-term assessment, namely relevance, replicability, institutionalisation and sustainability.

i. Relevance

- Expanding IE and EMS constituencies to broader public audiences;
- Development of local champions for IE and EMS for SMES;
- Expansion of coverage of IE and EMS to other regional growth centers and agro-industrial clusters/areas;
- R&D study of impacts of cropping patterns/processes in agro-industrial crops;
- Establishment of benchmarks behaviours and attitudes for key stakeholders, interests and commitments on EMS;

ii. Replicability

- Consolidation of all training modules, curricula and seminar-workshops;
- Process documentation of key lessons learned and experiences in each module;
- Identify and establish protocols for industrial ecology and EMS for SMEs by key industry sectors;
- Expansion of local EMS knowledge and skills at the regional levels;
- Inventory of all EMS skills, knowledge and inventory developed under the Project;
- Consolidation and rationalisation of all PRIME module databases and information systems and establish web-based linkages/interconnectivity with other agency database to accelerate information exchanges;

iii Institutionalisation

- Transfer of key Module implementation functions to partner agencies/organisations, i.e. PBE for Module 1; PEZA/BOI for Module 2; PBE/DENR for Module 3; and, DENR/EMB for Module 4;
- Regularisation of BOI Environmental Unit and DENR/EMB SME Desk;
- Expanded donor agencies and national government agencies participation in PRIME, i.e. DOST, UNEP, UNIDO, UNCHS and ILO;
- R&D study partnerships with DOST, DENR, Academe and private sector on key industrial production activities and environmental management systems processes/inputs;

Iv Sustainability

- Identify roles of LGUs in EMS and industrial ecology piloting;
- Integration and complementation of PRIME module activities

3.0 Immediate Action Plans for the Next 6 Months

To harness the broad lessons and experiences generated by the Project, four (3) immediate activities can be initiated through the Project Management Unit to serve as transition or exit programme for the Project.

These involve the following: a) conduct of process documentation or case study reports of best practices and lessons learned from the 4 Modules for the production of user guides or implementation protocols/manuals; b) physical inventory and collation of all Project-produced and supported training modules, curricula, and reference materials; c) consolidation into a common database format/programme of module databases and information systems; and, d) conduct of exit strategy sessions and strategic planning sessions for each module and partner organisation on continuity of project initiatives beyond project life.

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