

Fourth Regional 3R Forum in Asia

“3Rs in the Context of Rio+20 Outcomes – The Future We Want”

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Country Analysis Paper

(Draft)

< The Philippines >

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Country Analysis Paper

Major Initiatives and Achievements in the Promotion of 3Rs in the Philippines

Overall theme of the Fourth 3R Forum – “3Rs in the context of Rio +20 Outcome – The Future We Want”

Major initiatives/achievements in the areas of 3R policies, programs and institutional measures

1. The **Ecological Solid Waste Management Act of 2000** (Republic Act 9003) provides for an ecological solid waste management program to ensure protection of public health and the environment. It sets the mandatory waste diversion goal of at least 25% by 2006 and mandates waste reduction at source and segregated collection of household waste, establishment of materials recovery facilities/systems in all barangays; eco-labelling and green procurement. Through this Act the National Solid Waste Management Commission was established and local government units have been designated as lead implementers.

The National Solid Waste Commission through the assistance of the German International Cooperation (GIZ) has developed the National Solid Waste Management Strategy for 2012-2016. The strategy is composed of eight components that are envisioned to address the identified strategic issues and gaps that hinder the smooth implementation of the Ecological Solid Waste Management Act of 2000 and the Solid Waste Management Framework that gives emphasis to waste avoidance, source reduction, re-use, recycling and composting:

- a. bridging policy gaps and harmonizing policies;
- b. social marketing and advocacy;
- c. sustainable SEM financing mechanisms;
- d. creating economic opportunities;
- e. support for knowledge management on technology, innovation and research;
- f. organizational development and enhancing inter-agency collaboration;
- g. compliance monitoring, enforcement and recognition; and
- h. cross cutting issues: good SWM governance, caring for vulnerable groups, reducing disaster and climate change risks

2. The **Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990** (Republic Act 6969) encourages proper management of hazardous wastes generated within the country by promoting minimization of hazardous waste generation; recycling/reuse of hazardous waste; treatment of hazardous waste; and landfilling of inert residual hazardous wastes.

3. The **Philippine Clean Air Act of 1999** (Republic Act 8749) calls for the implementation of an integrated air quality improvement framework to be able to attain and maintain ambient air quality standards. Among the salient provisions of the law are the “polluters must pay” principle, and the prohibition of the use of the incineration method which is defined as the burning of municipal, biomedical and hazardous waste, which process emits poisonous and toxic fumes. Local governments are mandated to promote, encourage and implement in their respective jurisdiction a comprehensive ecological waste management that includes waste segregation, recycling and composting. Emission standards for motor vehicles are also provided for in the act.

4. The ***Philippine Clean Water Act of 2004*** (Republic Act 9275) provides for the protection, preservation, revival of quality of fresh, brackish and marine waters of the country to pursue economic growth. It applies to water quality management in all water bodies and primarily applies to the abatement and control of pollution from land based sources.

5. The ***Renewable Energy Act of 2008*** (Republic Act 9513) promotes the development, utilization and commercialization of renewable energy resources such as, but not limited to, biomass, solar, wind, hydro, geothermal and ocean energy sources, including hybrid systems, to achieve energy self-reliance, through the adoption of sustainable energy development strategies to reduce the country's dependence on fossil fuels. Incentives for renewable energy projects and activities include income tax holiday, duty free importation of renewable energy machinery, equipment and materials; tax exemption of carbon credits; and tax credit on domestic capital equipment and services.

The Renewable Energy Act is a landmark policy for curbing carbon dioxide emissions of the country as well as creating business opportunities, also for SMEs. Farmers engaged in the plantation of biomass resources such as but not limited to jatropha, coconut, and sugarcane, as certified by the Department of Energy are entitled to duty-free importation and exempted from Value-Added Tax (VAT) on all types of agricultural inputs, equipment and machinery.

6. The ***Climate Change Act of 2009*** (Republic Act 9729) directs the Climate Change Commission to formulate a Framework Strategy on Climate Change which serve as the basis for a program for climate change planning, research and development, extension, and monitoring of activities to protect vulnerable communities from the adverse effects of climate change. The Local Government Units shall be the frontline agencies in the formulation, planning and implementation of climate change action plans in their respective areas.

7. All government agencies are ordered through **Executive Order 301** to establish their respective **green procurement programs** to promote the culture of making environmentally-informed decisions in government, especially in the purchase and use of different products; to include environmental criteria in public tenders, whenever possible and practicable establish specifications and requirements for products or services to be considered environmentally advantageous; and to develop incentive programs for suppliers of environmentally sound products and services.

Initiatives for new emerging waste streams

1. **Bantay Baterya** is an ABS CBN Foundation program in partnership with Meralco, the Environmental Management Bureau (EMB) of DENR, and the Philippine Recyclers Inc. (PRI). This program is a recovery and recycling campaign on pollution-causing junk batteries. In 2005 a total of 2,552 pieces of junk lead-acid batteries were turned-over to Bantay Baterya worth P507,676.00. The Bantay Baterya project aims to aid in the eradication of pollutants caused by improper handling and disposal of batteries by collecting used, junk lead-acid batteries for recycling into fresh raw materials for the production of new batteries. (source:www.abs-cbnfoundation.com)

2. Several Department of Environment and Natural Resources (DENR) **regulations covering hazardous wastes** which include waste from electrical and electronic equipment (WEEE) are the following:

- a. DENR Administrative Order No. 1994-28 allows the importation of the following recyclable materials: scrap metals (lead acid batteries and metal bearing sludge), solid plastic materials and electronic assemblies and scrap. All importation must follow the requirements and procedures of the Basel Convention where there is notification and consent between parties and wastes to be imported must have a definite receiving facility with the essential environmental permits and clearance.
- b. DAO 2004-36, procedural manual for hazardous waste management, classifies hazardous wastes, and lists the requirements for the registration of hazardous waste generator and waste transporters and categories of treatment, storage and disposal (TSD) facilities.

Policy initiatives or strategies for the promotion of 3Rs in industry and business sectors

1. **The National Eco-labelling Programme – Green Choice Philippines** is one of the country's initiatives towards achieving a sustainable society. The programme aims to encourage manufacturers to adopt processes and supply products that have less adverse environmental impacts; guide consumers to choose products that are environmentally sound; and to use the label to empower consumers and to complement the government's environmental policy directions. To date the NELP-GCP has granted the Seal of Approval to twenty-four products under the categories of laundry detergent, cement, natural infill material, engine oil, ceramic tile, water-based paint, LED light, paper handtowel, tissue papers, induction lamp, electronic ballast, organic liquid disinfectant and photocopier. (Source: www.pcepsdi.org.ph)

2. Banks such as the Land Bank of the Philippines and the Development Bank of the Philippines provide **loans for environment related projects** (such as sanitary landfills, mini-hydro plants, waste water management and energy efficiency) to local government units, cooperatives, private corporations and small scale producers. The Land Bank of the Philippines (LANDBANK) is pushing for the implementation of technologies that help reduce the negative impacts of animal waste on the environment and ultimately address climate change.

LANDBANK's Program of Activity (PoA) for Methane Recovery from Waste Management Project, the first of its kind in the Philippines and in Southeast Asia, was recently registered by the United Nations Framework Convention on Climate Change (UNFCCC). This allows pig farms across the Philippines to generate carbon credits by investing in proper waste management systems to reduce the emission of methane, a potent greenhouse gas (GHG). (Source: www.landbank.com/news: **LANDBANK pushes for more animal manure and solid waste management projects in the country**)

3. The Philippine Business for Environment aggressively promotes Cleaner Production, Waste Reduction and Resource Recovery through, among others, the **Industry Waste Exchange Program (IWEP)**, originally established by the DENR Environmental Management Bureau in 1996 and revived by PBE in 1998. IWEP seeks to match industry waste generators with buyers who can reuse industry

waste as input to their production process. This helps close the industry loop and keeps useful waste material from the landfills. Other concrete opportunities for direct involvement by the private sector have been through the Makati Paper Exchange Project with the Makati Business Club and Ayala Foundation, and the annual nationwide Earth Day Recyclables Collection Events. PBE also promotes resource recovery and recycling through the Annual Earth Day Recyclables Collection Events and regular weekend mall – based Waste Markets in partnership with the Ayala Malls and the SM Supermalls Group. (Source: www.thepbe.org/articles)

4. The Philippine Environment Partnership Program (PEPP) is a DENR partnership program with industries, in cooperation with other environment-related agencies, aimed to support industry self-regulation towards environmental performance. Under the PEPP companies are classified under two tracks: track 1 are large companies going beyond compliance and are driven by competitiveness, image and supply chain requirements to improve performance, while track 2 are mostly small medium enterprises companies that are currently unable to comply with regulations, and are driven by survival needs. Since 2009, 39 companies have been awarded with the DENR Seal of Approval. (Source: www.emb.gov.ph)

5. The Philippine Chiller Energy Efficiency Program (PCEEP) is joint project of DENR and World Bank, whose main objective is to capture the significant potential for energy efficiency of new non-CFC chillers by accelerating the replacement of the existing stock of CFC based chillers, and contribute to more energy conscious decision-making by chiller owners and, eventually, a permanent market transformation of the chiller sector. The development objective of the project is to accelerate conversion of CFC-based chillers to new and more energy efficient technology. This would result to overall GHG reduction resulting from the energy savings from the installation of efficient chillers. (Source: www.emb.gov.ph)

6. Energy Efficiency project (Replace Incandescent Light Bulbs with CFLs) is Department of Energy (DOE) project where incandescent bulbs are replaced with CFLs Bulbs. The direct economic benefits of the project include reduced peak demand and overall reduction of imported oil for power generation through the use of energy efficient lighting systems. This will result in savings of about \$100 million per annum from avoided fuel cost and deferral of an investment of \$450 million in power generation and associated network capacity of 450 megawatts. Consumers will also enjoy improved quality lighting and will benefit from the savings incurred due to the reduction of their electricity consumption. In order to foster these initiatives, especially on energy efficiency, the DOE, with financial assistance from the Asian Development Bank (ADB), has undertaken the Philippine Energy Efficiency Project (PEEP) with the thrust of reducing peak load power demand through the implementation of an energy efficiency program with particular focus on efficient lighting that will in effect, contribute to GHG emission reduction and reduced cost of energy production. (Source: www.doe.gov.ph)

Policy initiatives or strategies for the promotion of 3Rs in agriculture and rural sectors in support of rural livelihood generation

1. The **2011 -2016 Philippine Micro, Small and Medium Enterprise (MSME) Development Plan** has identified climate change/green growth as one of the four emerging global themes that can greatly contribute to MSMEs' competitiveness. According to the plan, MSMEs will become more competitive by adopting "green growth" strategies which leads to greater resource efficiency, and by producing goods and services that respond to the demand for "green products". The Plan's targets will be delivered through the synergy and cooperation among agencies involved in MSME development. These stakeholders include national and local government agencies, private sector organizations, and development partners, among others. These institutions maintain their respective mandates, budgets and planning timelines in crafting and implementing the MSME Plan.

Among the projects that the Department Trade and Industry has implemented are the following:

- a. Project Bayong – manufacture of Bayong as a source of sustainable livelihood and as a contributor to preserving the environment. Bayong is a traditional market bag made of natural leaves which is abundant in the country side. It is used as a replacement to plastic bags.
- b. Water Lily Project – processing of water lilies into raw materials for community-based livelihood enterprises such as organic fertilizer production, green charcoal, bayong, footwear and other handicrafts. The project aims to provide emergency employment opportunities to out-of-school youths and unemployed residents of identified coastal/lakeside communities by way of cleaning up the Laguna de Bay and the seven lakes in San Pablo City.

(Source: Micro, Small and Medium Enterprise Development Plan 2011 -2016)

2. **Materials recovery facilities (MRF)/storage** for recyclables have been established in municipalities and cities nationwide. As per the Ecological Solid Waste Management Act of 2000 it is the role of local government units to close open dumpsite as well as controlled dumpsite and to convert these to MRFs/Eco Park; establish and integrated solid waste management system; and collect residual wastes from the barangay. Among the ESWM projects are the following:

- a. Adopt a lot, sagip kalikasan, sagip kabuhayan – utilizing vacant lots as vegetable/poultry farms in Sta. Rosa, Laguna
- b. Composting – in La Union composting is being used by farmers more than commercial fertilizers. Among its initiatives is the use of composting enhancers from urine, rice wash, and fish amino acid and the carbon carbonated method of composting.
- c. Corrugated roofing materials made out of plastic waste have been done in Los Banos, Laguna
- d. Plastics are recycled into hollow blocks and doypacks to eco-bags in Pasig. This has resulted to employment of eco bag makers.

3. Pioneering and innovative projects have been introduced in the Payatas Dumpsite, the main terminal for the solid waste collected in Quezon City. Among the programs implemented are the conversion of the open dumpsite into a controlled waste disposal facility in compliance with ESWMA implementation; conversion of methane gas into electricity; bio-gas emission reduction project; used tire retrieval project of Holcim Cement; raising the livelihood of waste pickers project; and the Japan fund for poverty reduction project. (Source: The 3Rs and Poverty Reduction in Developing Countries, Lessons from Implementation of ESWM in the Philippines by Dr. Anthony SF Chiu, October 2010)

4. One of the objectives of the **Tourism Act of 2009 (R.A. 9593)** is to *develop responsible tourism as a strategy for environmentally sound and community participatory tourism programs, enlisting the participation of local communities, including indigenous peoples, in conserving bio-physical and cultural diversity, promoting environmental understanding and education, providing assistance in the determination of ecotourism sites and ensuring full enjoyment of the benefits of tourism by the concerned communities.* The Department of Tourism, the Department of Interior Local Government, and LGUs are tasked to integrate and coordinate local and national plans for tourism development. Bohol, one of the top tourist destinations in the Philippines, has developed a Biodiversity Conservation and Ecotourism Framework Plan (2006-2015).