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*Executive Director*

On November 20, 2007 the fifth Shame of the Nation (SONA) roundtable discussion (RTD) called "Environmental Management: The Kyoto Protocol and the Philippines' Response through the Clean Development Mechanism (CDM)" was held by the Center for Integrative and Development Studies (CIDS) and the Institute of International Legal Studies (IILS) at the Second Floor Conference Room of the UP Law Center, Diliman, Quezon City. This Occasional Paper contains a shortened version of that RTD.

The Kyoto Protocol debates linger on enigmatic environmental issues concerning the global discharge of greenhouse gases. Until this very day, issues concerning the global discharge of gases remain as one of the most important issues on an international level and the fight seems to be between the so-called "green groups" on one side and developed countries on the other. Ramblings on the Kyoto Protocol's unfair effects continue to resonate in these debates. Far from being a "concerted global response to a global climate change problem", underlying political and economic plans have colored the Kyoto protocol debates. This is the reason why we chose this topic for our forum.

Congress has already passed the Clean Air Act as well as the Solid Management Act in compliance with the Kyoto Protocol. However, the agenda for implementing the Kyoto Protocol has shifted to a different plane and has gone beyond the straightforward reduction of discharge of greenhouse gases. The concern now is the capacity of state parties to comply with their obligations. Details on implementation complicate the present choice between the "lifeline for the planet" faction, on one hand, and the "economic straightjacket" view held by powerful states, on the other. Discussions on the amount of emissions or the length of the timetable have raised grave concerns regarding the wisdom of following the Kyoto Protocol standards and of adopting an aggressive government policy. Clarifying the Philippine stance on this questions, and examining complementary economic, political and legal issues require an enlighten framework.

We hope that our forum will serve as a challenge for us to make a normative choice in the context of clear standards of environmental management set in the Kyoto Protocol. In unmasking the underlying issues of the Protocol, we work to find the fit between the genuine problems addressed therein and the Philippine response, keeping in mind the transcendental importance of preserving our global environmental heritage for our children and the generations to come.

# **Environmental Management: The KYOTO PROTOCOL and the Philippines' Response through the Clean Development Mechanism (CDM)**

## **Backgrounder**

**Prof. Harry Roque**

Forum Chairperson  
Director of the Institute of International Legal Studies

The Shame of the Nation is a series of roundtable discussions conducted by the Center for Integrative Development Studies (CIDS). CIDS, the brain child of then UP President Edgardo Angara, was created to promote interdisciplinary discussions and studies on fields which are particularly relevant in solving the many problems of this nation. On the other hand, the Institute of International Legal Studies (IILS) under the UP Law Center is mandated to conduct research and legal studies on international law and international relations.

The IILS has a firm commitment in the promotion of environmental law. This is evident from the past projects that we have undertaken, such as a seminar with the international NGOs we conducted in Subic two years ago, as well as various publications on treaties relating to the environment. The sudden interest in the Clean Development Mechanism (CDM) in the Kyoto Protocol is attributable to the fact that our very own Solid Waste Management Act mandates the local government units to come up with environmental plans, including the eradication of open pits, open dumps and the like. Under the CDM, polluters are obliged to provide subsidies so that least-developed countries could implement their own environmental projects. What does this mean as far as the local government units (LGUs) are concerned? Although the process of coming up with alternatives to open dumps can be expensive; it is no longer impossible to do because the carbon credits now will make the whole system affordable, if not self-sustaining. The literature that I have seen indicates that while CDMs would not be sufficient to pay completely for the

cost of its projects, still the carbon credits that may be produced as a result of these projects would be enough to be self-sustaining, at the very least

In this forum, it is our expectation that those who are connected with the LGUs would at least have a basic understanding of what CDMs are and the projects that they can resort to. Hopefully, we can also promote greater interaction between those who know what the CDM is all about and the LGUs who may benefit from the CDM.

## An Overview of International Instruments Relevant to Environment

Atty. Dianne Desierto

Law Reform Specialist, Institute of International Legal Studies

The Philippines is a party to 90 multilateral international environmental treaties. There is a common trend, however, in these treaties; they are actually common generally accepted principles of international law and they are also part of the UN Framework Convention on Climate Change as well as the Kyoto Protocol. For purposes of this talk, I will give an overview of the five environmental principles which have been incorporated in the legal system under the incorporation clause of the Constitution.

The Philippines has 7.168 million hectares of forest cover. We are one of the most bio-diverse ecologies in the planet. We also have vast mineralized areas and our coastal zone is one of the largest in the world. The Department of Environment and Natural Resources (DENR) supervises, controls and enforces environmental policies. As I said earlier, the Philippines is a signatory to about 90 different multilateral environmental treaties that can range from topics or subjects such as soil pollution, air pollution, atmospheric conditions, water and marine areas among others. Given the sheer wealth of environmental laws that the Philippines has, it will be useful for us to ascertain whether or not these issuances are compliant with international law. This can be done by first looking at the five generally accepted principles of international environmental law upon which our local laws should be compared with.

International environmental law is traceable to two general obligations: the first is the duty of the state not to permit the use of its territory that would cause harm to another state, and the second is the duty to notify another state where the latter may be affected by an apprehended or identified danger by one state. These general obligations are deemed to be part of customary international law and also deemed to be generally accepted principles of international law. Following our Constitution, these general obligations are deemed part of the

Philippine legal system.

The debate in the 1972 Stockholm Declaration introduced the concept of the right to a healthy environment, the purpose of which was to put the environment as one of primordial importance and to deem such as a human right. In 1992, however, many countries considered said right as a difficult proposition because there is an equally weighty right for development. Developed countries have had a long period of time within which they have exploited and used their natural resources without necessary measures to protect the environment. Developing countries, in arguing in favor of the Kyoto Protocol, essentially do not argue against irresponsible environmental use. Rather, what they claim is that they also have an inherent sovereign right to exploit and use their natural resources pursuant to their own developmental policies. Therefore, the skills of environmental protection and the allocations of burden should be different. This very same debate paved the way for the Kyoto Protocol. The Protocol calls for schedules on emissions targets, not just on the reduction of the emission targets but also for the trading of emissions credits, where, in exchange for certain financial and technical assistance conducted by developed countries, they can end up mitigating their targeted reduction level. The United States did not see this as a fair imposition of international obligation. Most of the developing countries, however, saw that it was necessary, given the fact that many of these countries still need to make sustainable use of international resources for purposes of development.

Now, what are the generally accepted principles of International Environmental Law? The first is the *preventive law* which provides that every state has the duty to make sure that the use of their territory is done in a manner that will not cause injury to another state, territory or to the inhabitants therein. This is reflected in the Rio Declaration (1992). The

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principle is traceable to the civil law concept of good neighborliness and recognized by the international court of justice, particularly in the 1996 nuclear weapons case. This duty is not merely an extension of the territory of the state. It also refers to the positive duty of states to protect the global common areas, such as for example, Antarctica, the high seas, deep seabed, etc. The second duty is the *cooperative principle* which requires states to cooperate with other states to mitigate transboundary environmental risks. This proceeds from the recognition that environmental protection is a collective effort. The convention on biological diversity, for example, explicitly provides technology transfers as a mode of interstate cooperation. The third duty is the *due diligence principle*, which questions the extent to which a state is required to observe a certain standard of conduct in preventing environmental harm. In the past, environmental damage would subject a state

to strict liability. Today, however, international practice has moved away from strict liability to the standard of due diligence, wherein a state is required to exercise its best efforts, proportionate to its technical and financial capabilities and

resources, to mitigate transboundary harm. The fourth is the *precautionary principle*, which refers to the positive duty of states to prevent and control foreseeable environmental harms. The policy now is to make sure that states act prudently, rather than belatedly, by taking steps to control and prevent transboundary harm. This can be found in the Kyoto Protocol, the UN Premier Convention on Climate Change, the 1995 Vienna Convention for the protection of the ozone layer and most of the multilateral environmental treaties to which the Philippines is a party. Finally the last principle is the duty to make the polluter bear the cost of pollution or the *polluter pays principle*. Policies should be formulated to make the polluters bear the cost of pollution with due regard to the public interests and without distorting international trade and investment. However, the precise mode by which polluters are made to pay is different among various states. I think that there should also be a positive duty on the part of polluters not just to pay damages as compensation but also to undertake clean-up operations to restore the state of the environment prior to the occurrence of the injury.

There are two emergent principles of international environmental law, which are still not deemed as generally accepted principles of law, and therefore, not yet incorporated in the Philippine legal system. The first is the principle of *sustainable development*. The key idea of this principle is that development should be at the phase that meets the needs of the present without compromising the ability of future generations to meet their own needs. The sustainable use of resources does not preclude or bar the use of resources but rather calls for more judicious methods of insuring that such use can be continued for future generations. The UN Framework Convention on Climate Change explicitly includes the sustainable development principle. But as to whether or not this is obligatory is still the subject of debate. The second principle is the *Inter-Generational Equity Principle*. This is manifested in the landmark case of *Oposa vs Factoran*, where the Supreme Court interpreted the constitutional right to a healthy environment as to refer to a right that is also held for future generations.

The present generation is thus obligated to use the environment and to develop the natural and cultural heritage in a manner that can be passed on to the future generation. This principle can also be found in the UN Framework Convention on Climate Change and the Kyoto Protocol. The caveat is that these treaties do not provide for the same level of responsibility across the board. Instead they provide for a common but differentiated responsibility among different states.

At first glance, it seems that we have so many environmental laws and that we have no way of ascertaining any system or scheme for understanding these laws. However, if we map these out and test them against the five generally accepted principles, we will be able to see that our environmental laws are internationally compliant. Among said laws are

the Pollution Control Law, the Philippine Environmental Code and the Solid Waste Management Act. Thus, we can conclude that our domestic legislation is very much consistent with international standards.

## Philippine Implementation of the Kyoto Protocol: An Assessment

Dir. Albert Magalang

CDM Project Evaluator, Designated National Authority for CDM

I was tasked to provide you with the representation on how the Philippines implements the provisions of the Kyoto Protocol. The outline of my presentation will include the following: the Kyoto Mechanisms, the CDM and its benefits, the Philippines Milestone, Philippine Implementation, the host country approval and of course, an assessment on how the Designated National Authority implements the provisions of the Protocol.

Let us start with a background on the CDM. We have three mechanisms under the Kyoto Protocol and these are the: the joint implementation, the emission trading and the CDM. Such mechanisms are created to help Annex 1 parties in their commitment in reducing emissions. The Joint Implementation (JI) was created for Annex 1 parties to assist other developed countries to carry out projects and activities aimed at reducing gas emissions. The Emission Trading (ET) allowed Annex 1 parties to trade emissions credits acquired from CDM JI projects among different Annex 1 parties. On the other hand, the CDM is the only mechanism applicable to both Annex 1 and non-Annex parties. In such a case, the amount of GSG or greenhouse gases are converted to credits called CERS. And this CERS can be transferred to or traded with Annex 1 parties. This is the reason why some of our carbon credits are bought by developed countries. There are certain benefits of the CDM for both

developed and developing countries. As for Annex 1 parties, they will be able to meet their respective GHG emission reduction targets through CDM. For developing countries, they would be able to make profits out of selling CERS to Annex 1 parties. For non-Annex 1 parties like the Philippines, the CDM will be able to contribute to the country's sustainable development, to help the country develop environmental facilities such as sanitary landfills, and to facilitate the acquisition of profits from end products such as power-generated project activities and others.

The Kyoto Protocol was ratified on November 2, 2003. DENR Administrative Order 2005-17 provides for the rules and regulations governing its implementation. Executive Order 320 also designated the DENR as the Designated Authority for CDM. This is pursuant to Article 12 of the Kyoto

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Protocol which stated that parties participating in the CDM shall set up a Designated National Authority (DNA), otherwise the country will have no right to approve projects or endorse letters of approval to the Executive Board of the UNFCCC (United Nations Framework Convention on Climate Change). Another requirement is that the DNA of a party involved in the CDM project should issue certain statements in order to get the local government units to participate in the CDM projects. As the DNA for CDM, the DENR is tasked to facilitate and promote the activities that would support the UNFCCC objectives of stabilization of wind gas concentrations in the atmosphere. Also, the DENR should lead the move towards environmentally safe and sound technology and should contribute to the conservation of biological diversity and sustainable use of natural resources. The DENR is tasked to comply with all other pertinent laws and regulations and provide measures to alleviate poverty as part of its contribution to sustainable development.

The guiding principle of the Kyoto Protocol is that participating states should have the right to, and should promote sustainable development. The process in giving approval to a city project should be transparent, participatory, credible, efficient and effective. The approval procedures should also be responsive to the needs and demands of the project proponents, such as the government and various stakeholders.

What are the criteria for approving CDM projects in the Philippines? First, we have to establish the capacity of key proponents who would participate in the proposed CDM project. There should be an authorization in order to open certain accounts with the CDM Registry; otherwise the CDM projects would not be registered with the Executive Board in Germany. The host party that would authorize an entity's participation shall remain responsible for the fulfillment of its obligations and shall ensure that such participation is consistent with conference of party or meeting of party decisions (COP/MOP).

Now, as to the national approval criteria. We have three dimensions in evaluating CDM projects. The first one is the economic dimension. This means that there should be provisions of livelihood and other economic opportunities in the community. The project should be able to provide the proper safety nets and compensatory measures for affected stakeholders, to promote the use of cleaner, more efficient and environment-friendly technology and to provide new financial resources. The second criterion is the environmental dimension. Every project should have an Environmental Compliance Certificate (ECC) to ensure that the project conforms to environmental policies and standards, improves local environmental quality, and promotes sustainable use of natural resources. The last criterion is the social dimension. The project should provide education and training for local stakeholders, provide vulnerable groups access to local resources and services and promote local participation in the project activities.

These are the basic steps for the national approval process. First, the project proponent submits the project application along with the other documents required. Second, our team evaluates

the documents. Third, the steering committee deliberates on the matter. After deliberations, the committee endorses the project to the DENR Secretary for approval. The last step is the issuance of the letter of approval. The project proponents will need this document to register with the Designated Operation Entity (DOE). The DOE will validate the submitted documents abroad. The process also requires a Project Application Monitoring by the CDM Secretariat.

As of September 17, 2007, most of the projects applied for pertained to Waste Management or Waste-to-Energy Projects. We already have 14 registered projects with the DOE and so far, the windmill project in Ilocos was given a trade in certificate remission reductions. In Asia, the Philippines is the third in rank

in terms of projects submitted for registration. Globally, we are the seventh, I think. Just to give an example of these projects, most of the projects are piggeries with methane recovery and composting. There is also a waste water treatment using thermophilic anaerobic digester with methane capture. We also have three renewable projects activities. These are the wind energy, geothermal energy and mini-hydropower energy projects.

We are also exploring potential projects in the field of wind energy, biomass, waste-to-energy, waste gas utilization at steel factories, energy efficiency at cement factories, reforestation of watersheds and even tree-planting programs. We are formulating ways on how to compute the carbon emission in such activities. As long as technology develops, we will be exploring more potential projects. As for the barriers, right now we are facing delays in the processing of applications due to vague, general and rhetoric descriptions of projects submitted to us. There are also incomplete submissions of supplemental documents such as documentation of stakeholders' consultation, proof of legal capacity, environmental compliance certificate and others. We also encounter problems regarding the setting of a suitable schedule to convene the members of the CDM Steering Committee within the prescribed timeline. We also lack project consultants in the Philippines. As for the rules and procedures, at the executive board level, there is a constant change in the methodology in computing the emissions. This has resulted in delay and the need to re-validate, which leads to increased costs, especially for the project proponents.

To improve the current CDM rules and procedures, I suggest that the executive board undertake prompt action for every small-scale project activity submitted to them. They should not be overly meticulous in examining the applications since these projects are only small projects. There is also a need to bundle small-scale and micro projects. Moreover, there is a need to accelerate development and approval of methodologies as these cause delays for the local participants.

So far, we have established a CDM helpdesk to assist LGUs and industries which may be interested to get involved with the CDM projects. Interested parties could also visit our website at [cdmdna.emb.gov.ph](http://cdmdna.emb.gov.ph). We also came up with a manual on Greenhouse Emission Reduction Monitoring and Reporting Guidelines.

**The DENR should lead the move towards environmentally safe and sound technology and should contribute to the conservation of biological diversity and sustainable use of natural resources.**

## The Blueprint for Implementing the Solid Waste Management Act

Ms. Anita Celdran

CDM Specialist

I was asked to speak on the blueprint for implementing the Ecological Solid Waste Management Act of the Philippines in the context of the CDM. For the first part of my presentation, I will give a very brief background on the United Nations Framework Convention on Climate Change (UNFCCC). In 1992, the UNFCCC was adopted to become the first international agreement focusing on climate change. The objective of the treaty was the stabilization of greenhouse gas emissions in the atmosphere at a level that would prevent the dangerous interference with the climate system. The treaty, which has been ratified by 180 nations, however, has no binding agreements. Hence, the Kyoto Protocol was established in 1997 to provide for that binding agreement for the reduction of the worldwide greenhouse gas emissions with specific targets and timetable. The Protocol took effect on February 16, 2005; the Philippines ratified this in 2003.

Scientific evidence shows that climate change presents very serious global risks which demand a global response. Today, we experience frequent storms, heatwaves, floods and droughts. There is also an empirical evidence of sea level rise, coral bleaching and other adverse impacts caused by the sheer size of growing human population on this planet. Human activities have depleted the earth's natural resources. The climate change phenomenon is attributed to the increasing levels of greenhouse gas emission pumped into the atmosphere by human activity, trapping the heat that flows from the sun and raising global temperatures. Today, the effects of climate change are visibly affecting poor countries' economic performance in the livelihood of millions of people, droughts, famine, and illness never seen before. Hence, it is imperative that the government, industries and the people themselves take on strong and decisive policies and actions to regarding the adoption of a more sustainable energy pathway.

The Kyoto Protocol covers six greenhouse gases: carbon dioxide, which comes from the transport sector and energy sector; methane which is what we are concerned with here today because of solid waste management; nitro-oxide which comes from fertilizers and explosives; sulfur hexafluorides, which come from transmission lines, hydrofluorocarbons, and CFCs (chlorofluorocarbons). As to the methane gases, unsustainable waste collection and disposal systems cause methane to get into the atmosphere, contributing to the global warming problem. In fact it is said that 6,200 tons of waste generated in Metro Manila are disposed in rivers, *esteros* (canals) or left in the streets to rot. In the Senate hearing of the 2006 budget of the DENR, it was revealed that waste is not properly collected. One of the major problems in waste collection is the lack of adequate disposal sites. For reasons of health and environmental risks, many dumpsites are being shutdown. For

instance, the open dumpsite in Payatas and the landfill sites in Carmona, San Mateo were closed due to the complaints from the nearby residents and the municipal government. With these closures, Metro Manila waste is disposed in Rodriguez, Montalban and Tanza, Navotas. Therefore, there is a critical need to identify and develop new solutions to these growing environmental problems. Another concern is the institutional issue regarding the jurisdiction of the responsibilities. These issues are so far the biggest challenges in solid waste management in Metro Manila.

The Ecological Solid Waste Management Act of the Philippines (RA 9003) mandates the segregation of waste at source, the promotion of composting and recycling, and the closure of open and controlled dumpsites by 2006. Of course, I was told that this deadline was extended because of the LGUs' difficulty in addressing the issue. Another mandate by the law is to delineate responsibilities on waste collection and disposal to designated LGU units. The law also provides for the users-pay principle or the polluters-pay principle. This principle must be provided for to make the whole system sustainable; otherwise, it would be difficult to provide services without any source of income. The law also created the National Solid Waste Management Commission, a multi-sectoral body representing the various sectors that would be the environmental policy making body in the country.

I want to point out that considering the capital and skills gap in developing countries, the task to mitigate climate change is daunting. Private capital is slow at moving towards clean ecology innovations or investments. Hence, for developing countries such as the Philippines, there is a need for a mechanism which provides for the right mix of incentives and regulations and such mechanism must be consistent and predictable in order to provide a stable operating environment over the investments cycle. Asia lags behind other developed countries in attracting the investments needed for clean energy and environmental technology due to certain negative perceptions regarding political policy and lack of confidence in the legal system. Removing these barriers is among the key objectives of the Clean Development Mechanism (CDM). The main reason why the CDM was created was to hasten the reduction of greenhouse gas, while at the same time allowing Annex 1 countries the flexibility to address their commitments to the Kyoto Protocol. Other objectives include the promotion of investment capital which would translate to technology transfer and to facilitate sustainable development. The last objective is something which is addressed to the Designated National Authority (DNA). The DNA is tasked to ensure that the sustainable development goals of CDM are addressed by determining how to redistribute the benefits of sustainable development. Basically, the mechanism addresses both environmental and social issues through social consultations.

CDM portfolio continues to grow. There are now over 685 registered projects with the United Nations. I think India is the country with the most CDM projects among the developing countries. In the Philippines we have 14 projects, a large percentage

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of which is in solid waste management. Examples of these are landfill gas flaring and landfill waste-to-energy. I think CDM is a very good opportunity to take on certain risky projects since CDM revenue translates to extra revenue. This extra revenue would make these environmental investments more attractive. For instance, most people in the past would not pursue investments concerning wind and solar power technologies. However, in the next few years, these technologies will be in the forefront. Non-Annex 1 parties, including the Philippines, will benefit through the influx of investment capital, technology transfer and sustainable development.

Currently, I am with the CDM Advisory Firm AHLCarbono. We now have 11 projects in the Philippines, several of them pertain to solid waste management. We have existing projects in the Philippines that are close to being registered. For instance, we have the Northwind Bangui Bay Project in Ilocos Norte. We also handled the Nasulu geothermal project which is also registered. The Northern Negros geothermal plant is one of our big projects which are still pending before the DENR. I think that the DENR should start fast-tracking with these pending projects because they are good for our country and they will help contribute to sustainable development. We also have the Camras coco biodiesel plant which was held back because there was no approved methodology by the UN with regard to such project. It is a pity that a very good project has to be held back just because there is no existing methodology. I think these are examples of taking risks. A project may be the first of its kind, but this is the whole point of the CDM.

Lastly, we have the CDM project cycle. The whole cycle takes so long because a proponent must undergo several steps. First, the proponent must identify the project, do the diligence period and then prepare the project design documents. The proponent must then apply for a host country approval with the DENR. Then, the project must go through a validation process. Finally, if everything is approved, the project is registered with the United Nations. Actually, one can already start the project simultaneous with the application for registration. For every year of operation, there will be a periodic monitoring.

## Exploring Environment

**Prof. Merlin Magallona**

Former Dean, UP College of Law

I think the most complex treaty I have ever studied is the Kyoto Protocol, and there has never been any treaty negotiation that has involved so many controversies. It would be advisable and instructive for us to connect the Kyoto Protocol to the UNFCCC. Let me begin with a synthesis of the Report of the International Panel of Climate Change (IPCC) which was concluded in Valencia, Spain last week. Here we have a reiteration of the impact of global warming, as the most critical aspect of climate change. The IPCC, which is a group of leading climatologists instituted by the United Nations, came up with the following conclusion based on its reports: "...global warming

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would be so severe and so sweeping that only urgent global action would do. Abrupt and irreversible changes would make the planet unrecognizable." These, of course, were statements in reference to the long-term impact of global warming. It is calculated that global warming will inevitably lead to human suffering and the threat of specie extinction. Climate systems have already begun to change, with the warming of the air and ocean temperature, the rise of sea levels and widespread melting of snow and ice. It is expected that in the Caribbean and the Pacific, there would be about a four to ten inch rise in the sea level, and if this is not averted, it is expected that all the Pacific island nations would be submerged underwater. And I suppose that this would have some adverse effect on the Philippines with respect to the thousands of villages that are located along the coastal regions. The IPCC Report goes on to point out that on the basis of their summary of the recent literature on the matter, the poor and elderly will suffer most, hunger and disease will be pervasive, droughts, floods, and heat waves will afflict the world's poorest regions, and more animal and plant species will vanish. The accumulated effects of human activities through man-made greenhouse gases were again reiterated in order to preclude the outlook that the greenhouse gases are generated by non-human sources. Take note also that the premise of human activities as the source of greenhouse gases goes into the premise of the UNFCCC.

The Kyoto Protocol has identified the leading greenhouse gases such as carbon dioxide, methane and nitrous oxide. Certain human activities also relate to the accumulation of these gases. For instance, carbon dioxide is caused by the use and manufacture of fossil fuel, deforestation, and cement manufacture. This might be the reason why many foreign cement companies are moving to the Philippines. Take note that these gases are considered as sources, and the reduction strategy should be addressed to the gases at source.

Let me give you a note on greenhouse gases. The peculiar character of greenhouse gases is their heat-trapping property. This heat-trapping property gives rise to increases in global temperatures, precipitation, and increase in sea levels. As a consequence of global warming, sea levels have risen by four to ten inches over the last century, and will likely rise even more. This would, in many regions of the world, lead to contamination of aquifers that supply drinking water. There was a news report from Cebu last year that its aquifers are beginning to be affected by sea water, and therefore stand the risk of being contaminated. I suppose this might not be an isolated case in the near future if the trends of global warming continue. It is also calculated that the entire Pacific island nations will disappear under sea. Certainly, this impact will affect all regions of the world.

Then, we have the critical Toronto Conference as one of the turning points in the proceedings of the UN that gave rise to the UNFCCC. According to this conference, governments and industries should reduce carbon dioxide emissions by approximately 20% of their 1998 levels by the year 2005. However, it was not until the Kyoto Protocol that we quantified the targets.

The UNFCCC is intended as a framework, a statement of principles, and as a statement of general and specific

commitments. Take note that in the Framework Convention, we have a general classification of states into developed industrial states, and developing states. As for the general assumptions of the Framework Convention, there was a long debate as to whether the problem of climate change should be considered as falling under the “common heritage of mankind” concept. But finally, the Conference merely settled by saying that climate change and its adverse effects would be the common concern of humankind. And during the conference, the NGOs had a more radical and dramatic way of describing the impact of climate change as they made projections of the future. Human activities were belittled. As a matter of fact, the position of the United States was to preclude the focus on human activities. The US government insisted on the view that there was not enough scientific support to make that kind of attribution.

We also have some synthesis of the provisions of the Framework Convention. The largest share of greenhouse gas emissions pertains to developed countries. The developed countries, especially the European Community, accepted this responsibility. On such basis specific commitments were provided in Article 4 (a) and (b) of the Framework Convention. The ultimate objective of the Framework Convention is to stabilize greenhouse gas concentration in the atmosphere at a level that would prevent dangerous anthropogenic interference on the climate. Reference to “anthropogenic” is reiterated to describe the human activities as the source of global warming. The primary objective of the Framework Convention is the prevention of climate change. However, the Convention does not in any way specify the targets nor establish any ceiling until the Kyoto Protocol. “General commitments” of state parties refer to all the parties to the Framework Convention, and therefore would include both industrial and developing countries. Each party is required to develop and to submit information on national inventories of their emissions; to formulate and implement national and regional programs to mitigate climate change by addressing emissions and removal of these gases; and to cooperate in diffusion of technologies and processes. These general commitments have not been in any way changed with respect to developing countries, but these commitments assumed more specific forms and substance with respect to industrial countries.

Specific amendments are identified by the Framework Convention in relation to Annex 1 parties. Please take note that the Convention and the Protocol do not have the same annexes. Annex 1 parties are required to adopt national policies to mitigate climate change by limiting their anthropogenic emissions of greenhouse gases, and protecting and enhancing greenhouse gas sinks and reservoirs – in particular with respect to the development of new forests and reforestation. These demonstrate that developed countries are taking the lead in modifying long-term trends in anthropogenic emissions, and therefore impliedly, is an acceptance of their responsibility for the amount of emissions that could cause global warming.

### **The Kyoto Protocol has identified the leading greenhouse gases such as carbon dioxide, methane and nitrous oxide.**

However, we have no provision in the Framework Convention on the stabilization of emissions at a particular level. There is no provision requiring a mandatory return to specified earlier levels by a specific date or timetable. There is also no commitment to keep emissions to a level not higher than the 1990 levels after the year 2000. The omissions here are not really omissions in the sense of avoidance of responsibility, but there was a feeling that the specifications would have to be dealt with by protocols.

Developed countries are required to submit information on projected anthropogenic emissions for a period up to year 2000. There is a statement of the goal to return to the 1990 emission levels, but there is no specific reference as to quantification, which was intended to be left to more specific legal instruments such as the Kyoto Protocol. One other

set of commitments deals with financial resources and technology transfers to developing countries. This includes: (a) provision of new and additional financial resources to meet the cost incurred by developing countries for implementing general commitments; (b) adoption of measures to meet adverse effects of climate change and other needs arising from these adverse effects; (c) taking steps to facilitate and finance transfers of environmentally-sound technologies and know-how; and (d) supporting indigenous capacities and technologies of developing countries.

The Conference of Parties is the main mechanism for its implementation. The Conference of Parties as a technique for treaty implementation has become a common phenomenon to environmental conventions. The usual treaty-making technique is to leave the implementation of the treaty to the state parties individually and the treaty therefore in many cases remains ineffectively implemented. The Framework Convention, however, has the authority to take steps with respect to implementation, and such could be so specific as to make some amendments on the Convention itself. The meeting of the Conference of the parties gave rise to the Kyoto Protocol. We can also expect the Bali Protocol to come up with and provide for the strategies and ceilings for emissions after the expiration of the commitment period specified in the Kyoto Protocol.

Now, we come to the Kyoto Protocol. It entered into force in February 2005, after ratification by 55 parties. The major achievement of the Kyoto Protocol, as I have mentioned, is the establishment of a commitment of developed countries to set quantified reduction targets and a timetable for achieving them. These parties shall, individually or jointly, ensure that their aggregate anthropogenic carbon dioxide equivalent emissions of the greenhouse gases do not exceed their assigned amounts –and for the first time, we have a definite ceiling for these emissions.

They must implement this obligation “with the view to reducing their overall emissions of gases by at least 5 per cent below 1990 levels in the commitment period 2008 to 2012.” One of the critics in the European Community wrote that these quantifications would not be sufficient to even make a dent in the problem of global warming, but he was referring only to the Kyoto Protocol.



April G. Manuel

We should also take into account the future protocols which, as matter of fact, would change the commitments in the Kyoto Protocol, or even in the Bali Protocol. It is by the institution of the Conference of Parties that the mechanism for the implementation, rule-making, and amendment to the Kyoto Protocol and the other future protocols has been made flexible. And so we have these quantifications as obligations.

Annex 1 parties are also required to make progress reports by 2005. This presents a problem, as many of the Annex 1 parties have not succeeded in performing their obligations on the basis of their cap or ceiling. Therefore it would be carried over as a burden on the implementation by the Conference of Parties, and might disturb the allocation of credits. As for assigned amounts, the European Community agreed to an emissions limitation of 92% of the 1990 base year or 8% reduction in the 2008-2012 commitment period. Japan and Canada accepted a 6% reduction.

There are different means of achieving emissions commitment under the Kyoto Protocol. We have the most controversial measure under the Kyoto Protocol – the market for Emissions Trading, which, I understand, was proposed by the

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United States. The United States was insisting on market-oriented measures. Under this mechanism, Annex B parties – developed country parties – can buy emission reduction credits from another Annex B party when it would be more cost-effective for it to do so rather than to undertake the reduction domestically. This is also the rationale behind the CDM, which might also be preferable on the part of the developing countries. Emissions trading, however, must only be supplemental to domestic measures to achieve emissions reduction. The other measure under the Protocol is the Joint Implementation Measure. Annex 1 parties may transfer to or acquire from any other Annex 1 party emission reduction credits resulting in projects

for reducing anthropogenic emissions. Then, we have the CDM mechanism. Annex 1 parties may gain emission reduction credits in assistance to its compliance with its reduction commitments. Annex 1 parties can also invest in emission reduction projects of non-Annex 1 parties. This means that a developed country party may invest or undertake investment measures in a developing country party.

These are the salient points of the Kyoto Protocol. It was announced by the IPCC, as well as the Secretary-General of the United Nations, that there may be changes in the commitments that are embodied in the Kyoto Protocol. But these are not really changes, but are merely representative of the progressive dynamism present in dealing with global warming. The future

protocols would not be supplanting the previous protocols, but would deal with the periodization of the future such that each protocol would be setting different quantifications in the limitation of emissions.

## Open Forum

- To structure the Open Forum proper, Prof. Roque and Ms. Celdran led the discussion on measures the different local government units in Metro Manila have undertaken to comply with the Solid Waste Management Act and avail of the CDM mechanism.
  - Col. Roberto Jaymalin from Quezon City presented the Biogas Emission Reduction Program aimed at developing the dumpsites of Quezon City to capture and utilize methane gas. They intend to launch the project by December 15. Based on the estimates of the credits that the city is expecting to earn from the project, it can be proven that LGUs could actually comply with the law without going bankrupt.
  - Mr. Sherwin Fontanilla from the Solid Waste Management Office of Pasay City said that the city is undertaking efforts to establish Materials Recovery Facilities (MRF) at every barangay. By December 20, they are aiming that at least 20 barangays in Pasay City would have MRFs.
  - Mr. Danilo Villas from the Department of Environmental Services of Makati City said that they were able to divert at least 27% of their waste. Mr. Villas also presented several problems regarding the implementation of the Solid Waste Management. He claimed that some local chief executives do not consider solid waste management as a priority and these officers sometimes allot a limited budget for such projects. Also, no proper orientation was provided to the LGUs on how to proceed with the Solid Waste Management Plan.
  - Dir. Ramon Santiago from the MMDA said that the MMDA has been attempting to look for disposal sites in order to solve the problems of waste disposal. There were also attempts to convert dumpsites into sanitary landfills. However, he believed that the people should focus more on waste reduction, than waste disposal.
- The issue of the JANCOM contract was also raised. The contract was supposed to create a Metrowide waste-to-energy facility. Due to the passage of the Clean Air Act, the contract has to be amended to scrap the provision pertaining to the use of incinerator. The contract is still pending before the Office of the President.
- Prof. Tony Oposa raised the problem of compliance with environmental laws. Of the numerous environmental laws that we have, not even 1% of it is fully implemented. The government itself is not following these laws. In order to make sure that LGUs would implement the law effectively, he suggests that citizens should file a citizen's suit against their government officers who refuse to comply and implement the law.
- Mr. Villas pointed out that the LGUs, as implementer of the law, should first be trained and prepared regarding these laws. He observed that most LGUs do not even have offices handling environmental concerns making it difficult to assess implementation since their own capability is questionable.



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