A photograph of mangrove roots in shallow water. The roots are dark brown and gnarled, extending from the water down into the sandy mud. A small green mangrove sapling with several leaves is visible in the lower right foreground. The water is clear and reflects the light.

The State of Our Environment

Report to the Nation

# The First 20 Months

*by*

Sec. Heherson T. Alvarez

Department of Environment and Natural Resources

## REPORT TO THE NATION: THE FIRST 20 MONTHS

### STATE OF OUR ENVIRONMENT:

By Sec. Heherson T. Alvarez



Secretary Heherson T. Alvarez

**T**he world is now focused on the fight against terrorism...a phenomenon that seeks to tear the moral fabric of society and destroy duly established systems and institutions. There is an equally deadly, silent and pervasive form of destruction of life forms, habitats and properties that directly threatens the very survival of the human race. This is the destruction of the environment and rapid depletion of natural resources.

The air, land, forest, water, wildlife and mineral resources are functioning parts of complex and delicate natural systems that support life. They are the sources of food, clothing, shelter, water, medicine and livelihood, among other things. They also serve as the bases of production and determine the conditions that largely affect

the economic situation and the general welfare of the population.

**The many** elements of the environment are inextricably linked in what can be described as the "web of life". Problems in one area affect the conditions in other areas. The forest, for instance, serve multiple purposes: as home for plants and animals or habitat for biodiversity, as watershed or source of water since trees hold considerable amount of water, as carbon sink that cleans the air we breathe since trees absorb the harmful carbon dioxide and replace this with oxygen, as vegetative cover that maintain our fertile topsoil since the

roots of trees hold the water that will otherwise wash out the topsoil and cause flooding and disaster in the lowlands, as windbreaker that dissipate strong winds especially during typhoons and as source of livelihood for our people and raw materials for our industries.

**Denudation** of our forests therefore will result to water shortages, more polluted air, loss of our valuable plant and animals, loss of income and livelihood for our people, lack of raw materials for our industries, reduced ability of our farm lands to produce, flooding and destruction of properties.

And this interrelationship knows no boundary. Problems of environment in one country affect the people in other countries and vice versa. Destruction of the forests and their ability to absorb carbon dioxide, for example, contributes to global warming or higher temperature in the atmosphere since the carbon dioxide absorbs and maintains the heat of the sun in the earth. This alters the weather patterns that affect the survival of plants and animals on earth. This interrelationship knows no boundary. Problems of one country affect the other countries and vice versa. Destruction of the forests and their ability to absorb carbon dioxide, for example, contributes to global warming or higher atmospheric temperature since carbon dioxide absorbs and retains the heat of the sun on earth that otherwise would radiate back into space. This alters the weather patterns that affect the survival of plants and animals. Equally alarming, this will melt the polar ice caps resulting to a rise in the sea level flooding island-countries like the Philippines. This interrelationship was the basis for the convening of the World Summit on Sustainable Development recently in Johannesburg, South Africa. Environment is not the concern of one country or a few countries but of all.



**Forest denudation**



**Carbon dioxide worsens global warming**

in-

It's unfortunate that the rate of pollution and environmental degradation in the Philippines is among the highest in the world:



**Air pollution**

**Air and water quality** – the air in Metro Manila is polluted. The air in Valenzuela, Congressional Avenue, East Avenue, Pag-Asa and EDSA showed occasional unhealthy levels. The air pollution in Congressional Avenue, in particular is three times higher than allowable standard. These are caused largely by vehicular emissions. Also, most of the river system in Metro Manila like the Pasig, lower Marikina, Paranaque-Zapote, Navotas-Malabon, Tullahan-Tenejeros and San Juan are in poor conditions.

**Waste disposal** – Metro Manila generates 6,000 tons of garbage daily and only 69.0% are collected or recycled. Those collected are dumped in unhealthy and hazardous open dumpsites. The balance of 1,860 tons are just dumped anywhere.



**Solid waste dumpsite**

**Forest resources** – Only about 18.0% of the country's land area are covered by forests. About 5 million hectares are denuded due to large conversion for settlement and agricultural production, illegal cutting, pests, diseases, forest fires, etc.

**Biodiversity** – the Philippines has one of the highest concentration of plants and animals in the world. But they are also among the most threatened due to lost of forest habitat and illegal col-

lection.

**Coral Reefs** – of the 27,000 square kilometers of coral reefs, 75.0% are in fair or poor conditions. It is estimated that it will take 50 years to recover damaged reef. This is due to destructive fishing practices (e.g., dynamite fishing), coral trading, land-based pollution and siltation and loss of mangroves.

As a result, we are bedeviled by shortages, unhealthy environment, endangered plants and animals, low farm output, potential disasters and inability of our natural resources to sustain livelihood especially for upland communities, where the poorest of the poor are located.



**Bohol tarsier**

In our coastal areas, the average catch of our small fishermen has declined

from 20 kilos to only 2 kilos. They now have to devote ten times as many resources as they did 50 years ago to catch the same amount of fish. This also deprives the population of a cheap source of protein. Water supply, according to a 1998 JICA study, is in critical conditions in 9 urban areas: Metro Manila, Metro Cebu, Davao, Baguio, Angeles, Bacolod, Iloilo, Cagayan de Oro and Zamboanga.



**Coral reef**

## **THE DENR: THE ENVIRONMENTAL CONSCIENCE OF GOVERNMENT**

The mission of DENR is to protect, sustain, enhance the environment and manage the wise use of our natural resources. Mindful of the crying need of the greater mass of our burgeoning population, now nearing 79 million, and knowing fully well the rich potential of our natural resources, the DENR has enhanced its role in the development process. We are focused on the national goal of poverty reduction.

In ensuring the integrity, diversity and vitality of our natural systems—plants, animals, soils, air, water, and minerals—we also seek to create wealth for our people. We see our role as being able open up access by citizens to its lands and mineral wealth with due regard for the health and sustainability of the environment.

Sustainable development implies a balance between economic and environmental concerns for the sake of present and future generations. In short, sustaining the Filipino's quality of life along the social justice goal of the Arroyo Administration.

## What we have done in the first 20 months of my tenure

1. Vigorously protected, rehabilitated and expanded our natural resource base:

**We have** reforested 45,567 hectares of open and denuded areas (including watersheds) with approximately 113.9 million trees. This will eventually bring many benefits to our people (assuming average survival rate for trees planted is 80.0%):

- A single mature tree holds 80 to 100 gallons of water. The area reforested therefore will eventually yield a supply amounting to 7.3 to 9.1 billion gallons of water. This is equivalent to 172 million drums, critical for our irrigation, power and potable water needs.
- The reforested area will also be capable of absorbing 4,553,600 tons of carbon (based on estimate of the Intergovernmental Panel on Climate Change that 50% of the wood being produced by trees are carbon). This will lead to a cleaner and healthier air quality and help mitigate global warming.



**Religious leaders plant mangrove tree**

- The reforested area will allow for the return of many forest-dwelling wildlife species enhancing biodiversity in an area the size of Mt. Kitanglad Range Protected Area which is home to the endangered Philippine Eagle, and lessen the threat of soil erosion, flooding and siltation.

**To speed up** reforestation and at the same time attract investments,

we pursued the establishment of large-scale industrial tree plantations, starting with a 120,000 hectares co-production sharing agreement with a consortium of foreign and local investors in CARAGA. This is expected to generate U.S \$100M in investments, create jobs and incomes, and enhanced livelihood opportunities in the uplands.

**We have established** an initial 17 nurseries nationwide using clonal technologies. This will allow us to speed up production of premium timber species (like narra, almaciga, etc), fruit trees and ornamental trees and supply massive amounts of trees of our reforestation efforts and private tree planta-

tions. The technology will generate superior planting seedlings in 45 days compared to 4-6 months using regular technology. Its tree production capability is also 300% better. This innovation will lead towards doing away with wood importation and even allow for exports. All the nurseries are expected to be completed by next year.



**Tree nursery**

**To protect** our forests and deter further destruction, we aggressively pursued the enforcement of forestry laws and hit hard on those responsible for the despoliation of our forests. We confiscated a total of 21,126 cubic meters of illegally-cut forest products valued at P63M, the highest over a three year period. This is equivalent to about 900 fully-loaded 10-wheeler trucks. We also filed 323 cases in court against these violators. To prevent encroachment in our forest areas, we delineated and monumented 4,833 kilometers of forest boundaries. We also pushed for the enactment of the Chain Saw Act which gives teeth to the DENR in going after illegal loggers by regulating chain saws used in the pillage of our forests in the same way that guns are regulated to minimize or curb crime.

**To further protect** our forests and enhance our rich biodiversity, we facilitated the passage into laws of 4 protected areas: Batanes Protected Landscape and Seascape in Batanes Island, Mt. Kanlaon Natural Park in Negros Occidental, Northern Sierra Madre Natural Park in Isabela and Sagay Marine Reserve in Negros Occidental. We also facilitated the passage into laws of the Wildlife Resources Conservation and management Act and the Cave Resources Act and signed 10 Agreements with local and international institutions for the protection of our endangered species. These are expected to protect our wildlife, which are critical for the propagation of plants and trees, control of agricultural pests, and sources of food and livelihood.

**For our coastal** areas, we rehabilitated and instituted a more rational management of our coastal resources. We rehabilitated 164 hectares of degraded mangroves and established an

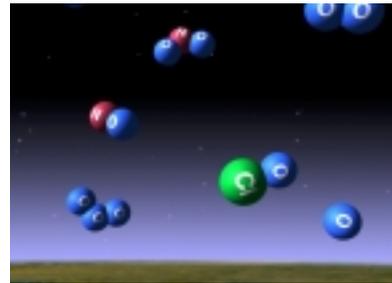


**Mangrove**

additional 10,473 hectares of mangrove plantations. As sanctuary of our marine resources, these are expected to propagate fish species and increase the catch of small fishermen. To complement coastal development, we are pursuing the capability building of coastal communities and LGU's to effectively manage their coastal resources through our Coastal Resources Management Program in 81 sites nationwide.

## 2. Protected the Quality of the Environment:

**We implemented** a strict enforcement of standards for hazardous waste and toxic chemicals. We were able to reverse the steep increase in the importation of ozone depleting substances or ODS (e.g., freon for airconditioners) that went beyond the Country Program during the last Administration. ODS depletes the ozone layer in the atmosphere and allows the entry of substantial dose of ultra violet rays that cause skin cancer and blindness, among others. In 2000, ODS importation went beyond the maximum quota by 20.0%. For year 2001, ODS importation was only 65.0% of the allowable quota. We are now back on track with the Country Program to eliminate ODS by 2010. In addition, we strictly monitored hundreds of hazardous waste generators and intercepted illegal shipments of toxic chemicals. Just recently, we and the Bureau of Customs raided a warehouse with illegally imported 29,835.2 kilos or 29.83 metric tons of ODS amounting to P2.56 million. This was the first seizure ODS ever made.



**Destruction of ozone layer**

**We issued** 66 Cease and Desist Orders (CDO's) for violations of environmental laws and withdrew the ECC's and permits of projects like the Pulupandan Coal Power Plant and Aglubang Mining Corporation that were found to be potentially harmful to the environment and threaten the health of the population.



**We completed** the Implementing Rules and Regulations of the Ecological Solid Waste Management Act in 2000. In line with the law and to safeguard the health of the population, we closed down the open dumpsites of 9 municipalities and 5 cities. We also assessed 205 potential landfill sites and assisted 131 LGU's in converting to a safer and less polluted controlled dumpsites. For

next year, JBIC has provided U.S \$206 million in soft loans to enable 47 cities and municipalities to achieve an integrated solid waste management program.

**We negotiated** successfully for the payment of damages and rehabilitation by Placer Dome Technical Services amounting to U.S \$13.0M for the Marcoper disaster. The President advanced P20M for a technical study by the U.S Geological Service on how best to clean up and rehabilitate the river system in Marinduque. We also established a P197M liability and rehabilitation fund for environmental protection and monitoring of mining sites.

**We have** strongly advocated for the utilization of cleaner energy fuels. We are at the forefront of advocacies for the use of natural gas and bio-diesel as fuel for vehicles. We have received support from the various transport groups in the use of cleaner fuels, especially from the Inter-City Bus Operators Association and integrated Metro Manila Bus Operators Association. We will soon sign a Memorandum of Agreement with the Senbel Fine Chemicals Co., Inc. and Total Petroleum Corporation for a joint project in the utilization and distribution of bio-diesel, a mixture of coconut oil and diesel that substantially reduces the emission from motor vehicles.



**Renewable energy**

### 3. Provided Wider, More Equitable Access to NR to all:

**For the marginal** fishermen, we promoted equitable access to coastal resources. We established the 15-kilometer municipal coastal boundary for almost 900 coastal communities, through Department Administrative Order (DAO) No. 17 in June 2001. This reserves municipal waters for the use of small-scale fishers who operate boats of less than 3 gross tons. This is expected to result in increased catch for about 1.3 million small fishermen and further benefit 7 million people that the fishermen directly support, without resorting to destructive fishing methods. It may be noted that a 2-hour operation of a commercial fishing vessel is equivalent to the small fisherman's 6-month catch. In addition, this policy of exclusivity will allow for the rehabilitation and regeneration of coral reefs and coastal ecosystem, which will result to enhanced fish population and thus higher catch and income. Thus far, we have completed the delineation of coastal waters of 408 municipalities.



**Farmlands for the landless**

**We allocated** 160,588.95 hectares of alienable and disposable public lands to 124,200 families or about 621,000 family members. This is 150% of the target and commitment of the President during her State of the Nation Address last year. We have actually surpassed the Department's batting average of 45,000 hectares per year over the last five years. Most of the public

lands allocated were in Mindanao. In addition, we have directed the distribution of land patents covering 103,943 hectares benefiting 83,883 beneficiaries or families. The beneficiaries are now guaranteed ownership and security of tenure to the land they are residing and cultivating, a direct form of social justice. In addition, we distributed land titles covering 52,909 square meters to 313 World War II veterans in Makati and, for the first time in 25 years, we distributed some 192 Townsite Sales Applications covering 97,522 square meters in Baguio City. Around 200,000 hectares of untitled private agricultural lands will now also be acquired and redistributed to qualified beneficiaries under the Comprehensive Agrarian Reform Program. Meanwhile, we have assisted in the formulation and passage in Congress of the Extension of the Free Patent Act allowing for the filing of free patents or the titling of agricultural lands, until December 31, 2020. This enables government to continue distributing lands to poor farmers and the landless. We also intensified our drive against illegal land titles, investigated 1,470 land cases and filed 843 reversion cases with the Office of the Solicitor General.



**Forest conservation**

**We established** an additional 71 Community-Based Forest Management Projects or CBFM covering 226,003 hectares. The CBFM provides security of tenure to the settlement of an upland community, designates them as stewards and grants them the privilege of utilizing forest products in their areas. This brings to 4,956 the total CBFM areas nationwide covering 5.7M hectares and benefiting 496,165 households or roughly 2.7million individuals.

## Mt. Diwalwal: Broadening beneficiaries of Nation's wealth:

**A typical case** of the new DENR approach is the Mount Diwalwal issue. It is a case of social justice in favor of the poorer segment of the population in an environmentally critical industry that is now designed to be clean, safe and productive



**The lure of gold**

**The Mt. Diwalwal** issue had dragged on unresolved for 19 years. The Arroyo Administration has shown the necessary political will to finally solve the escalating problems of pollution, criminality, lawlessness and insurgency, health and safety hazards, social dislocations and injustices in the area. The DENR has been directed to take over the management of the area.

**To stop** the escalating violence, pollution and health related problems and secure the area, we declared an emergency situation and stopped all mining operations with the assistance of the PNP and AFP. A central tailings pond and engineered dams will be constructed to contain all the pollution coming from the mining activities, in an adjacent area that will cost about P50M. We have already delineated an area of mineral processing plants and common tailings disposal system.



**Tailings pond**

**To commence** the mining operations in an equitable manner, we have started to contract out the mining operations to some 20 small-scale miners cooperatives. We intend to rent to them the tunnels of existing big mining companies in the area; thereby generating income for these companies as well. In addition, and under the service contracts, the income sharing will be 85% for small miners and 15% for the government. Previously, the small miners only got 40% from the big mining operators.

**Deliveries** of the Government ore share collections started in September 17, 2002 and October 2002. To date, Government has a gross receipt of P3.789 Million from the sales of its ore share to the Bangko Sentral ng Pilipi-

nas – Davao City.

#### 4. Restored the Confidence and Enhanced the Status of the Philippines in the World Environment Arena:

**The past** 1 ½ years saw the restoration of the confidence in the Department of the international donors community. In a matter of only one year, we were able to generate some P2.7B in international funding commitments.

**We prevented** the termination of critical foreign-assisted projects by international funding institutions due to poor performance. In the case of the Forestry Sector Project, we prevented the cancellation of \$30M by ADB and JBIC when we reversed the accomplishments of the Project from a poor 38.0% in 2000 to 90.2% in 2002. Similarly, we reinvigorated and turned-around the operation of the Ozone Depleting Substances or ODS Project at a time when the World Bank was contemplating cancellation due to perceived mismanagement and missing funds. These two are now among our more successful projects.



Active role at WSSD

**The Philippines** has gained prominent international status. The Philippines, through DENR was the chairman and lead country for the ASEAN preparation for the World Summit. The Philippine Delegation in the final world meeting in Bali for the World Summit and in the actual World Summit on Sustainable Development in Johannesburg, both led by DENR, also gained the respect of the community of nations for its sound disposition, active participation, cohesion and composition, having the civil society and NGOs as majority of its members. Just recently, the

Philippines was elected Chairman and played very prominent role during the Ministerial Convention on Migratory Species in Germany, attended by more than 100 countries.

**We have been** able to effectively advocate and advance the environmental interests of the country in the international community. We signed the Stockholm Convention on Persistent Organic Pollutants, the first Regional ASEAN Transboundary Haze Pollution Agreement and became a member of the Like-Minded Mega Diversity Group, composed of 15 countries that account for 70% of the world's biodiversity and ¾ of the world's population. We attended a Head of States Meeting of the Group during the World Summit.

## 5. Actively Pursued Good Governance:

**We drastically** streamlined the processing system for the issuance of the Environmental Compliance Certificate (ECC), a requirement for practically all projects in the country. We have been able to simplify and reduce the processing time by an average of 40%, and up to 60% for project considered not very environmentally critical. In addition, we strengthened the system of checks and balance and the accountability of concerned personnel/officials. The ECC streamlining is provided in Administrative Order No. 42, issued by the President on November 2, 2002. As a result, we have been able to issue 118 ECC's nationwide in a matter of one week. There are still 594 pending applications for ECC's, which we will issue in one month time. This is expected to result in substantial savings for applicants, accelerate implementation of projects and generate early revenues, promote investments and catalyze the creation of jobs, income and economic activities. This is deemed critical at this time of slow economic growth.



**Environmental assessment**

**We were** uncompromising in cleansing the Department of misfits. We conducted comprehensive audits of our major projects and operations. As a result, we investigated and filed administrative and criminal charges against 353 officials and personnel of the Department for various reported offenses. We have also started to professionalize the staff and leadership corps of the Department through a more competitive promotion system and training programs. We will be implementing a nationwide audit of performance of our different offices and officials starting next year.

**We strictly** pursued the user's fee strategy and increased the revenues for the National Government collected by the Department. For 2001, we were able to generate revenues amounting to P555.2 million. This is an increase of P5.8 million over the collection the previous year. For the first half of 2002 alone, we have already collected P315.3 million and projected to reach P630.7 million by yearend. Our increased performance is due to reforms in our income collection strategy such as more effective records management and collections and strict monitoring of mineral and forest production and sales. We further improved our collection of rents, fees and other charges through the implementation of the Resource Accounting Project on proper economic valuation for patrimonial properties, grasslands, protected areas and water bodies. We are therefore able to contribute in addressing the budget deficit problem of the national Government and provide funding for the critical pro-

jects of the President.



**Drought**

**We have** instituted a more open and comprehensive partnership with the P.O.'s, NGO's, religious, business, civil society and the Local Government Units in all aspects of our programs and operations. We have institutionalized multi-sectoral composition in the monitoring and enforcement of environmental and forestry laws and policies.

**We are** in the forefront and considered a leader in institutionalizing gender sensitivity in all aspects of our operations and in dealing with our clients. We issued a landmark policy by allowing married women from applying for homestead patents. This amended an order issued in 1936 requiring the consent of husbands before women can apply for the purchase or lease of public lands. After 66 years of discrimination, women now have equal rights in public lands applications.



**Internet**

**We have** provided our staff with Internet and other communications technologies, e.g. the cell phone, to make them proficient in responding to the full range of emergencies.

*We have shown strong political will and have taken principled stand against efforts of some quarters to compromise our quest for a clean and healthy environment and equitable access to natural resources.*

*We have denied or withdrawn the ECC's and permits and penalized big projects that we deemed detrimental to the environment.*

*We have never wavered in our stand, despite threats and character assassination, against those who would tend to monopolize the use of natural resources and disregard environmental laws and regulations.*

*We have been uncompromising in filing charges against ranking and well-connected officials over violations of environmental policies.*

*We have issued landmark policies and regulation designed to better protect the environment and promote social justice in the environment and natural resources sector.*

*We are resolving the Mt. Diwalwal mining issues which have not been resolved the past 19 years. We have issued the order that will reserve for small fishermen*

*the right over coastal areas.*

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*We have streamlined the ECC process in a manner that has never been successfully done, we have challenged the environmental impact of coal-fired power plants.*

*We have created partnerships with other public and private agencies to work cooperatively on environmental and natural resources issues of common concern. We have sought to use the DENR as a communication, coordination, and decision-making tool in the debate of issues related to the environment and our natural resources.*

*We realize we are running against time in our quest to provide a natural environment and a physical and economic pattern of development that are rich in diversity and livable in every way for us today and for future generations. But we're confident we have taken the right steps towards sustainable development.*



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