Environment and Development: Two Sides of the Same Coin

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From "Environment, Development and Youth", by arrangement with ESCAP

I was roaming along a twist ing path leading to a land of beauty when I caught sight of an old man walking falteringly ahead. I quickly caught up with him and greeted him. He said, "I'm Tao Yuanming." Tac Yuanming was the ancient poet who wrote "I pick chrysanthemums under the eastern hedge, and far away to the south I can see the mountains.

"I live in seclusion in the countryside hoping to find happiness and contentment," he added. "I never expected the place to be polluted like everywhere else in the world. So I must go to Peach Blossom Spring, that isolated spot, to spend my remaining years."

Peach Blossom Spring! Wasn't that the place described by the poet as a level and spacious land? "There were houses and cottages arranged in a planned way; fine fields and beautiful pools; mulberry trees, bamboo groves, and many other kinds of trees as well. There were raised pathways round the fields; and the sounds of hens and dogs could be heard. The people there were their hair in a knot and were happy and content with their life." I congratulated myself on being able to accompany the well-know pastoral poet in his search for the ideal world he depicted.

In the twinkling of an eye, we arrived at Peach Blossom Spring. But what we saw was entirely different from what Tao Yuanming had described in his writing. It was like everywhere else: high-rise buildings, a forest of chimneys, heavy traffic, deafening noise, stinking odours and overflowing polluted water. There was not a single tree, to say nothing of fine fields, beautiful pools and nightingales and swallows singing.

We were surprised and dazed when suddenly a plume of thick smoke rolled towards us. Tao Yuanming stumbled and fell. As I reach out to help him I too lost my balance and then woke up with a start. So it was only a dream! An unnamed sadness rose in my heart as my eyes fell on a report beside my pillow: The Earth at the End of the Century.

was no dream. Environmental problems were definitely an issue that could not be ignored.

The rapid development of modern science has created an unprecedented wealthy material civilization. As a result, the problem of environmental pollution is becoming increasingly I remember something like

this: Four pelicans and sixteen Californian seagulls kept in the Los Angeles Zoo died on the same day. Laboratory tests showed that their bodies contained a high percentage of DDT. The zoo had been feeding their scabirds with spotted maigre from an area where a pesticide plant in southern California discharged its waste water. DDT was once known for the wonders it accomplished concerning hygiene, agriculture and military affairs. Yet when used it is carried by the wind and waves even to the descried North and South Poles and thus pollutes the whole world.

The death of these birds may not be such a grave matter, yet the serious effects of pollution disturb most people. Men can't exist without water, air and organisms which are closely connected to the development of society. Nature has given countless blessings to mankind who has been so wantonly careless that nature can no longer put up with it. Now humanity is suffering because of this. Today, nature's sword of punishment has made human beings realize the latent menace of a fatal attack.

in developed industrial countries environmental problems have become something of state concern while in developing countries they do not receive as much attention, although the problems are equally shocking. The Ganges, the sacred river of the Indian people, has changed from a clean beautiful river, which fostered generations of Indian and Bangladesh people and where aquatic life multiplied, into a murky, stinking one. The water can neither be used for irrigation nor is it drinkable. The main rivers of other

Filipinos Paying Gruesome

Price for Deforestation

Scenes of bodies bulldozed into mass graves brought

home the message that deforestation kills. by Paul

countries are likewise polluted. Statistics show that evcry year 150 million tons of sulfuric dioxide drift in the atmosphere from the discharge of the world's industrial waste residue, gas and water. Besides, 420,000 million tons of polluted water are discharged annually. This is a time bomb which can explode any time with disastrous re-

To deal with this increasing problem "wise men" have suggested plans like the 'zero increase measure", which would prohibit the speed of increase in industrial production so that the reproduction rate of men and machine remains at zero.

Others suggest "a control over man's physical size" in order to decrease economic expenditure and pollution. Still others try to dissuade developing countries from overall industrial development and economic increase. Some pessimists claim that in the next hundred years world economic growth and environmental pollution will reach their limit, a crisis with which the most advanced science and technology will not be able to cope. Mankind will be on the brink of extinction.

Is the future so bleak? Is mankind so hopeless? Regarding an environmental crisis, can mankind only complain and wait passively for death without doing anything, without seeking progress and development?

Pessimism never helps, 1 believe, and the idea of a stalemate is undestrable. Society must develop. Mankind must progress. Although pollution didn't occur in Peach Blossom Spring, the ideal world of Tao Yuanming, yet a life of ancient natural economy is not satisfactory. Environmental problems are byproducts of the development of society. But they can be avoided in future development. Active measures can be

adopted to avoid the harm and turn them into something beneficial.

Today, all countries in the world we taking active measures to map out plans and stipulate regulations to solve environmental problems. The Ruhr is the oldest and largest industrial area in West Germany. Twenty years ago, looking down from a plane, one could not see cities but only dense smog. In winter, snowflakes turned sooty on the ground. The water and banks of the Ems River, a tributary of the Rhine, was inky black. Distressed by this, starting from the sixties, Germany decided to have a blue sky over the Ruhr again. The efforts of the past years have brought good results. The water in the Ruhr flows clear and clean between green grassy banks. If a large heavy industrial area like the Ruhr can improve its environment, can't other places eliminate or slow down pollution?

With these thoughts, the despondency in my heart is quickly dispersed. When man recognizes the gravity of an environmental crisis, he must take active measures to improve it. The aim of protecting and transforming the environment, of developing and beautifying it, can be realized provided plans for future development are made according to the principles of ecological economy and take into account environmental problems. Thus pollution can be controlled, the environment can develop steadily while the economy also develops well.

For instance, to solve the fresh water crisis, people have begun to clean dirty water and industrial waste water. A friend researching on this problem told me that experts in the US Environmental Protection Agency have mapped out plans to extract methanes for fuel and asphalt from waste water.

This is killing two birds with one stone. Rivers which have become polluted will flow again with clean transparent water bringing limitless blessings to mankind. Polluted water will be a thing of the past. Other environmental problems like an unbalanced ecology can be likewise eliminated. Natural environment like the circles of biosphere, atmosphere and hydrosphere will renew themselves incessantly and benefit humanity once we pay attention to environmental protection and develop science and technology.

Looking out at the horizon as I leaned against a window, was lost in meditation. Peach Blossom Spring, a natural country cut off from the world, no longer exists. But highly cultivated Peach Blossom Springs can spring up everywhere. No matter how attractive the one described by Tao Yuanming was, it was nevertheless primitive and lacked material resources. The new Peach Blossom Spring, the one we long for will be a place of fine fields, beautiful pools and mulberry trees as loved by the

pastoral poet. The civilization it will attain is something none of us have experienced. There we will find fresh air, sweet clean water and nightingales flitting amid flowers and trees. There will ba a centre to utilize resources and energy from the sun and universe to satisfy man's material needs, and a spiritual one to store all the best spiritual wealth created by

Man can gain new knowledge, obtain aesthetic satisfaction and spiritual training there. If Tao Yuanming could live again in such a place, he would certainly be deeply involved in it.

When damage is done to beneficial nature, calamity befalls us. This also encourages man to find out nature's secrets in order to transform and improve it. I agree with the old Chinese saying, "In a blessing, a disaster is concealed.

lies hidden." Doesn't this describe the relationship between the environment and development too?

CCORDING to a recent survey, 62% of he-A ads of firms in France now consider the protection of the environment as an extremely important objective. The public authorities, for their part, are helping them to design products with low harmful effects.

Catastrophic events hitting headlines further strengthen the resolve of ecologists: pollution of water reserves, repeated oil spills, an increase in the greenhouse effert, etc.. So the 'green business", which aims to make development compatible with the protection of the environment, has some fine days ahead.

There is no doubt that the coming economic battles will be centered on the environment. In Europe, ecology-related markets represented 320 billion francs in 1990. This trend is expected to continue at a wreath of 6 or 7% a year. It is an eldorado for those involved in a new production

In 1990, the French car manufacturers. Renault and Peugeot, launched an ambitious programme to build a "clean car". All solutions will be considered "from the good old two stroke engine, to the gas turbine, and from the electric engine to the hydrogen engine and to petrol substitutes. This

Green Fever in Industry

research will cost 1.8 billion francs, a third of which will be financed by the state.

Oil industrialists are also falling in line with the demands of ecology, by producing unleaded petrol. They will profit by it as the government grants them a considerable tax reduction. 5% of the 2,66,000 employees in the chemicals industries are working on the protection of the environment. One of the big firms in this area, Rhone-Pulnec, has 1,200 of its executives working on this matter. In 1988, the firm obtained the first incineration permit for industrial waste for the state of Louisiana in the United States. Its researchers have also devised a process for recycling sulphuric acid which the Americans are interested

In the fight against chlorofluoro carbons (CFCs) which are damaging the ozone layer, French scientists are also gaining points, thanks to brilliant researchers who are producing harmless gases having the same properties as CFCs. The management of "L" Oreal", the largest cosmeties firm in

the world, has undertaken to quickly replace CFCs by harmess gases. A French engineer, Claude Blatzet, has been awarded the European Ecoproduct" prize for his refrigerator, the "Zeoroff" which words without CFCs. On the " green market", "Air Liquide" stands out of rits processing of paper pulp using oxygen instead of chlorine. Foreign pa permills are adopting this method.

What can be done with all the plastic bottle spilling out of dustbins? Manufacturers in the east have launched the "Pelican" operation which mobilizes schoolchildren to collect them. A crusher reduces them to powder which industrialists turn into car parts. vine-stakes and boat-hulls. Progress is also being made in containers where metal is making a comeback. It is replacing plastic and offers better protection. It can easily be picked out of waste deposits using a magnetic sorter.

The chainstore "Monoprix" was the first to offer its customers products bearing a " green label". These include

nappies which have not been d by chlorine, batteries not containing mercury, recycled paper and biodegradable dustbin liners. These new products are favoured by consumers who have decided to use coological products.

French specialists are well placed in water purification. They are developing new processes such as "hyper-filtration through membranes" (invented by "La Linages des Eaux"). This world first caught the attention of town councillors in Los Angles "La General des Eaux', a competitor of "La Lyonnaise des Eaux", has won a contract in Spain to clean up the water in Saragossa. In Nice, an engineer has thought up a promising method of eliminating phosphates and nitrates from water. Mineral solutions are injected into the polluted water and these coagulate the phosphates and the nitrates and make them sink to the bottom of tanks.

100% natural materials. which produce no pollution, such as linen, jute and raffia, are making a comeback. In one collection, a dress called "Pollution", attracted considerable attention. It was embroidered with wilted seaweed bottle-tops and other rubbish conjuring up the seaside at the end of the century.

-Pierre-Albert Lambert

vide the buld of the protein,

vitamins and minerals. Hunting

itself accounts for about 10 per

cent of food, but amongst men

it is the most prestigious of all

skills. They hunt with large

bows and arrows, often taller

them themselves. Skill at

an essential part of wooting a

partner. Often the 'head' of a

village is a man with the great-

est number of sisters and

daughters; for men will be

surveys of geology of Amazonia

carried out in the 1970s sug-

gested that Yanomami lands

contained radioactive materi-

als, tin and gold. Before the

end of the 70s independent

move in. Since the 1980s the

main attraction has been gold. -

rush had developed with up to

By the mid 1980s a gold

prospectors started to

The first scientific aerial

hunting is greatly envied and is



Grave consequences will ensue in France if factory chimneys are permitted to function in the manner that they are proceeding. (Photo: Jerrican/Dandier)

Glimmer of Hope For The Yanomami

by Mostafa Kamal Majumder-

respiratory infections to which

The animals are hunted and

scared off by the noise of min-

ing. And by now the Yanomami

have become completely dis-

oriented. No longer able to

produce their own food, they

the the state of Roraima

(where the Yanomami live)

made a 1988 proposal to split

Yanomami territory into 19

pockets. He threw all re-

sources of the state behind the

miners and against the

Yanomami. In Roraima the gold

miners have much more influ-

ence than the Indians. They

have voting power, the Indians

do not. Juca claims that

400,000 people depend di-

rectly on indirectly on

free people tool place in the

early 1970s when Brazil's then

military government launched

a plan for roads through

Amazonia deliberately to open

up the forests to rich compa-

nies and landless migrants.

Until that time the Yanomami

populations were strong and

healthy and actually growing in

A road — Perimetral Norte

- carved through Yanomami

lands was never carvedco

through Yanomami lands was

never completed, but the pre-

liminary works were enough to

introduce a series of diseases

- flu, measles, veneral dis-

eases, malaria among them -

to the villages. The communi-

ties were decimated by epi-

demics with a 90 per cent loss

of life in some places. The sur-

vivors were reduced to a few

are separated from the outside

world by thick rainforest and

streams difficult to navigate

and today they are reached

only by air. Forty years ago, at

The threatened Brazilian

small groups of thin beggars.

The first real assault on this

prospecting.

numbers.

Juca Filho, the Governor

are reduced to begging.

he Yanomami Indian community of Brazil are now close to winning victory in their fight to protect their territory from encroachments by miners, loggers and merchants. Their lands in northern Brazil look more likely than ever before to be protected by the government.

An announcement made on November 15 by President Fernando de Mello of Brazil for demarcation of 9.4 million hectares of Yanomami territory has created a new glimmer of hope for saving the community from extinction. International groups campaigning for protection and security of the Yanomami for the last two decades are now lobbying for an early allocation of funds for physical demarcation of the territory and other steps to save the Amzonian rainforest that provide shelter to the

Yanomami. The Yanomami community of 9,000 represents of fraction of the 250,000 Indians who still remain in Brazil. Records show Indians comprised a population of five million in 1500 living in the areas of modern Brazil. Encroachment has forced the decline of their population to a mere five per cent of that total in the last five centuries.

Occupying an area of 36,367 square miles near the Venezuelan border, Yanomami are still in mortal danger. Shooting, invasion, disease, poisoned rivers, casual racism and greedy business interests threaten the community which has lived on this land for thousands of years.

Successive Brazilian constitutions - the most recent was prepared in October, 1988 have acknowledged the Indians' right to their land. But the reality is that Yanomami territory has been continuously trespassed on.

The former Brazilian President Sarney made some gestures towards removing 45,000 gold miners from Yanomami land. But in practice little was done. The federal police was ordered to evict the miners in Januatry, 1990 but the operation was called off after 24 hours in the interests of miners among others. Thus in the past the government broke promises of Brazil's own constitution, which recognizes the Yanomami land rights as well as defyed a court ruling of

October: .989. the time of the first invasion of Meanwhile, the Yanomami miners and missionaries into continued to die of diseases, their lands, they were one of brought in by miners, such as the few isolated communities malaria, tuberculosis, flu and still to use stone tools.

they have no immunity. for about 80 per cent of the The mercury effluents from Yanomami food. More than half the mining have poisoned the the crop fields are also great rivers, killing the fish and defavourites, as well as vegetables stroying the Indians' water such as corn and other sweet supply. The Yanomami are betropical fruits such as peach ing physically attacked Miners palm and papaya. In all about have even shot children out of 60 crops are grown, of which the trees, shouting 'monkey'. only 20 or so are for food. The Numbers of wildlife, which rest are for medicine and reliis central to the Yanomami gious ritual, or for making the diet, have decline dramatically. various objects needed by the

Yanomami in their daily life. Hunting gathering 'and fishing account for about 20 per cent of the food, and pro-

Shifting cultivation accounts

200 panners arriving a day and a total of up to 45,000 on Yanomami land, serviced by 120 airstrtps. Many of the miners were themselves carrying diseases. They were completely uninformed about the

from malaria.

Indians, calling them 'monkeys'. It was hardly surprising that the healthy Indian community was ravaged by disease. Since 1987 the state and the federal governments had prevented voluntary groups from going in with medicines. This restriction was lifted in early 1990. By 1989 in the Paapiu region 90 per cent of the Indians were suffering

The November 15 announcement regarding demarcation of the Yanomami territory came in the backdrop of a strong campaign organised by Survival International and other nongovernmental organisations which, by the second week of the month, were on the verge of organising a mass NGO boycott of the June 1992 Conference on **Environment and Development** (UNCED) to be held in Rio,

The announcement, however, marks the initial success of a two-decade-old campaign it will take a good deal of efforts and time to properly address the Yanomami problem.



A Kuwaiti oilfield worker at midday prayer near a burning oil well. Hundreds of oil wells were set ablaze by retreating Iraqi troops at the end of the Gulf conflict.

the worst disaster to hit the country ever, with Typhoon Thelma claiming more than 8,000 lives and leaving 700,000 people homeless in Leyte province, eastern Philippines.

Icamina

And it came on the heels of three major disasters all in less than a year and a half the July 1990 earthquake which killed nearly 1.700 people, a major typhoon later in the year which left thousands homeless in central Philippines and the ongoing eruption of Mt Pinatubo since

The latest disaster stunned the nation, especially since the typhoon was not strong by local standards - it had a wind speed of just 65 kilometres per hour in a country used to having storms more than 200kph strong.

But six inches of rains in just a few hours over deforested mountains brought down flash floods into Ormoc, the worst hit city (pop 160,000). 560 kms southeast of Manila. High tides also flooded the city from the sea.

"The smell of death pervaded the air in this small city by the sea as relatives and friends looked for the bodies of their loved ones," a newspaper reported. "Bodies were found everywhere - on the street, on the shoreline and on the river banks." So many in fact that Ormoc city soon ran out of coffins while unclaimed bodies were buried in mass

More than 35 bridges were destroyed in Leyte province and other parts of central Philippines. Flash floods and power failure affected several cities and towns in Leyte and Samar provinces. But the worst hit was Ormoc City where the zigzagging Anilao river carried floods into the heart of the city, sweeping hundreds of houses away. Three coastal communities were flooded. An island villages was swept away with its 3,000 residents reported missing.

Later, news scenes of bod-

ies bulldozed into mass graves brought home the message that deforestation kills. Illegal logging is now the hottest topic, next perhaps only to the 1992 presidential elections. Congress is investigating illegal logging and charges have been made against politicians and military officials for coddling

fllegal loggers. It was worse than the typhoon in 1984 which claimed 1.028 lives - then the local record for typhoon fatalities. And it surpassed the tsunami (earthquake-induced tidal wave) which swamped south-

ern Philippines in the 1970s

and claimed about 8,000 lives.

Not counting the latest disaster, more than 6,000 Filipinos were killed in typhoons in the last two years alone. That seems to indicate an increasingly higher fatality rate since in the last 20 years about 3,000 people were killed in tropical storms. The Philippines averages 20 typhoons a year.

One reason for the increasing number of fatalities, and made glaring by the latest disaster, is deforestation. The Philippines is an archipelage of more than 7,000 islands thrust from volcanic ocean floors. Most of the islands are mountainous and many communities

are within site of mountains. Mountain with sufficient forest cover acts as water catchment areas. But bald, deforested mountains lose their "sponge" role in absorbing rain water which runs down on eroded slopes. Flash floods downhill result.

Two years ago, eastern Philippines - particularly Leyte and Samar provinces was already hit by flash floods traced to deforestation. It prompted the Department of **Environment** and Natural Resources to impose a moratorium on logging in the area. Four timber licences were suspended while only one logging company remains in Leyte province.

Environment Secretary Fulgencio Factoran Jr agrees

that forest denudation was the main cause of the recent tragedy in Leyte province. But he strongly insisted that the mountain catchment that empties into the river at the heart of Ormoc city had not been illegally logged. There was no forest to log in the first place.

He said the 45,000-hectare catchment area overlooking Ormot city is almost bald, only 10 per cent of its is covered by forest - the geothermal reservation of the Philippine National Oil Company. Since 1952, the rest of the water catchment area was converted into private farmlands.

In the 1930s, the Philippines was covered by nearly 17 million hectares of forest. Today, only about 7 million hectares remain, of which about 800,000 are primary virgin forests. Only 10 provinces have forest cover above 40 per cent. Six provinces have been totally stripped of forests.

The government has curded logging permits nationwide. from 137 concessions in 1987 to 60 authorised logging firms today. These firms cut about 2.1 million hectares of forest a year, or half of what it used to be, 5.4 million hectares a year in 1987.

Logging and wood processing contribute more than US\$700 million to the Gross National Product each year. Many of the forests were cut in the 1960s when logging companies exported some 9 million cubic metres of tropical hardwood to Japan alone.

Six out of 10 of the world's poor are being pushed by modern agricultural practices and high population growth into marginal lands that are more vulnerable to disasters.

Deforestation poses a great hazard in marginal land already prone to disasters. Clear-cutting and slash-and-burn farming eats up vast parts of forests. The search for more fuelwood leads to the loss of ground cover which prevents landslides and soil erosion.

In a disaster, a blessing