

The Cost of Combating Global Warming

Facing the Tradeoffs

Thomas C. Schelling

At international conferences, people speaking for the developing world insist that it is the developed nations that feel endangered by carbon emissions and want to retard elsewhere the kind of development that has been enjoyed by Western Europe, North America, and Japan. A reduction in carbon emissions in the developing world, they assert, will have to be at the expense of the rich nations. Their diagnosis is wrong, but their conclusion is right. Any costs of mitigating climate change during the coming decades will surely be borne by the high-income countries. But the benefits, despite what spokespeople for the developing world say, will overwhelmingly accrue to future generations in the developing world. Any action combating global warming will be, intended or not, a foreign aid program.

The Chinese, Indonesians, or Bangladeshis are not going to divert resources from their own development to reduce the greenhouse effect, which is caused by the presence of carbon-based

gases in the earth's atmosphere. This is a prediction, but it is also sound advice. Their best defense against climate change and vulnerability to weather in general is their own development, reducing their reliance on agriculture and other such outdoor livelihoods. Furthermore, they have immediate environmental problems—air and water pollution, poor sanitation, disease—that demand earlier attention.

There are three reasons the beneficiaries will be in the developing countries, which will be much more developed when the impact of climate change is felt. The first is simple: that is where most people live—four-fifths now, nine-tenths in 75 years.

Second, these economies may still be vulnerable, in a way the developed economies are not, by the time climate change occurs. In the developed world hardly any component of the national income is affected by climate. Agriculture is practically the only sector of the economy affected by climate, and it contributes only a small percentage—three percent in the

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United States—of national income. If agricultural productivity were drastically reduced by climate change, the cost of living would rise by one or two percent, and at a time when per capita income will likely have doubled. In developing countries, in contrast, as much as a third of GNP and half the population currently depends on agriculture. They may still be vulnerable to climate change for many years to come.

Third, although most of these populations should be immensely better off in 50 years, many will still be poorer than the rich countries are now. The contribution to their welfare by reduced climate change will therefore be greater than any costs the developing world bears in reducing emissions.

I say all this with apparent confidence, so let me rehearse the uncertainties, which have remained essentially the same for a decade and a half. Arbitrarily adopting a doubling of greenhouse gases as a benchmark, a committee of the U.S. National Academy of Sciences estimated in 1979 that the change in average global surface atmospheric temperature could be anywhere from 1.5 to 4.5 degrees Celsius. (Note that the upper estimate is three times the lower.) This range of uncertainty has still not officially been reduced.

More important than the average warming is the effect it may have on climates. Things will not just get warmer, climatologists predict; some places will, but others will get cooler, wetter, drier, or cloudier. The average warming is merely the engine that will drive the changes. The term "global warming" is mischievous in suggesting that hot summers are what it is all about.

The temperature gradient from equator to pole is a main driving force in the

circulation of the atmosphere and oceans, and a change in that gradient will be as important as the change in average temperature. Climatologists have to translate changes in temperature at various latitudes, altitudes, and seasons into changes in weather and climate in different localities. That is another source of uncertainty. Mountains, for example, are hard to work into climate models. Not many people live high in the mountains, so why worry? But India, Pakistan, Bangladesh, and Burma depend on snowfall in the Himalayas for their irrigation.

A further question gets little attention: what will the world be like 75 years from now, when changes in climate may have become serious? If we look back to 1920 and conjecture about what environmental problems then might be affected by climate changes over the coming 75 years, one problem high on the list would be mud. This was the era of muddy roads and narrow tires. Cars had to be pulled out by horses. People could not ride bicycles, and walking in the stuff was arduous. One might think, "If things get wetter or drier the mud problem will get worse or better." It might not occur to anyone that by the 1990s most of the country would be paved.

If the climate changes expected 75 years from now were to happen immediately, the most dramatic consequences would be in the incidence of parasitic and other tropical diseases. Temperature and moisture affect malaria, river blindness, schistosomiasis, dengue fever, and infantile diarrhea, all vastly more dangerous than the radioactive and chemical hazards that worry people in the developed countries.

Alarmists have weighed in with dire predictions of how a warming of tropical

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and subtropical regions will aggravate the scourge of tropical diseases. But any changes in temperature and moisture need to be superimposed on those areas as they are likely to be 50 or 75 years from now, with better sanitation, nutrition and medical and environmental technology, cleaner water, and the potential eradication of vector-borne diseases.

Malaysia and Singapore have identical climates. There is malaria in Malaysia, but hardly any in Singapore, and any malaria in Singapore gets sophisticated treatment. By the time Malaysia catches up to where Singapore is now, many tropical diseases may have been tamed. One invasive tropical creature, the guinea worm, is already expected to follow smallpox into extinction.

THE MARSHALL MODEL

The modern era of greenhouse concern dates from the 1992 Rio Conference, attended by President Bush, which produced a "framework convention" for the pursuit of reduced carbon emissions. A sequel is set for Kyoto in December. Countries from the Organization for Economic Cooperation and Development (OECD) are groping for criteria and procedures to determine "targets and timetables." There are proposals for the formal allocation of enforceable quotas, possibly with trading of emission rights. There is disappointment with the lack of convincing progress in the five years since Rio. Many people wonder whether Kyoto will settle anything.

It will not. But five years is too soon to be disappointed. Nothing like a carbon emissions regime has ever been attempted, and it is in no country's individual interest to do much about emissions: the atmosphere is a global common where every-

body's emissions mingle with everybody else's. The burden to be shared is large, there are no accepted standards of fairness, nations differ greatly in their dependence on fossil fuels, and any regime to be taken seriously has to promise to survive a long time.

There are few precedents. The U.N. budget required a negotiated formula, but adherence is conspicuously imperfect, and the current budget, even including peace-keeping, is two orders of magnitude smaller than what a serious carbon regime would require. The costs in reduced productivity are estimated at two percent of GNP—forever. Two percent of GNP seems politically unmanageable in many countries.

Still, if one plots the curve of U.S. per capita GNP over the coming century with and without the two percent permanent loss, the difference is about the thickness of a line drawn with a number two pencil, and the doubled per capita income that might have been achieved by 2060 is reached in 2062. If someone could wave a wand and phase in, over a few years, a climate-mitigation program that depressed our GNP by two percent in perpetuity, no one would notice the difference.

The only experience commensurate with carbon reduction was division of aid in the Marshall Plan. In 1949-50 there was \$4 billion to share. The percentage of European GNP that this amounted to depends on hypothetical exchange rates appropriate to the period, but it was well over two percent, although differing drastically among the countries. The United States insisted that the Europeans divide the aid themselves, and gave them most of a year to prepare.

The procedure was what I call "multilateral reciprocal scrutiny." Each country

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Sun block: Sooner or later, China will get money from the West to shield it from the effects of global warming

prepared detailed national accounts showing consumption, investment, dollar earnings and imports, intra-European trade, specifics like per capita fuel and meat consumption, taxes, and government expenditures—anything that might justify a share of U.S. aid. There was never a formula. There were not even criteria; there were “considerations.” There was no notion that aid should be allocated to maximize recovery, equalize standards of living, balance improvements in consumption levels, or meet any other objective. Each country made its claim for aid on whatever grounds it chose. Each was queried and cross-examined about dollar-export potential, domestic substitutes for dollar imports, dietary standards, rate of livestock recovery, severity of gasoline rationing, and anything pertinent to dollar

requirements. The objective was consensus on how to divide the precious \$4 billion.

Although they did not succeed, they were close enough for arbitration by a committee of two people to produce an acceptable division. After the Korean War, when NATO replaced recovery as the objective, the same procedure was used. Again consensus was not reached, but again there was enough agreement for arbitration by a committee of three to decide not only the division of aid but military burdens to be assumed. Multilateral reciprocal scrutiny proved effective, no doubt because an unprecedented camaraderie had been cultivated during the Marshall Plan. And remember, consensus had to be reached by countries as different in their development, war damage, politics, and cultures as Turkey, Norway, Italy, and

France. A similar procedure recently led to the European Union's schedule of carbon reductions for its member countries. A difference is that in the Marshall Plan it was for keeps!

Did the Marshall Plan succeed despite, or because of, its lack of formal quantitative criteria and its reliance on looser, more open-ended, pragmatic modes of discourse and argument? In the time available, plan participants could not have agreed on formal criteria. In the end they had to be satisfied with a division. Any argument over variables and parameters would have been self-serving arguments once removed; arguing explicitly over shares was more direct and candid. Had the process gone on several years, more formal criteria might have been forged. The same may occur eventually with carbon emissions.

SETTING THE CEILING

Two thousand American economists recently recommended that national emission quotas promptly be negotiated, with purchase and sale of emission rights allowed to assure a fair geographic distribution of reductions. This appears to be the U.S. position for the meeting in Kyoto. It is an elegant idea. But its feasibility is suspect, at least for the present.

One cannot envision national representatives calmly sitting down to divide up rights in perpetuity worth more than a trillion dollars. It is also hard to imagine an enforcement mechanism acceptable to the U.S. Senate. I do not even foresee agreement on what concentration of greenhouse gases will ultimately be tolerable. Without that, any trajectory of global emissions has to be transitory, in which case renegotiation is bound to be antici-

pated, and no prudent nation is likely to sell its surplus emissions when doing so is clear evidence that it was originally allowed more than it needed.

The current focus of international negotiation is extremely short-term. That is probably appropriate, but the long term needs to be acknowledged and kept in mind. If carbon-induced climate change proves serious, it will be the ultimate concentration of greenhouse gases in the atmosphere that matters. The objective should be to stabilize that final concentration at a level compatible with tolerable climate change. Emissions of the carbon-based gases are the current focus of attention, but the question of concentration is what needs to be settled.

If scientists knew the upper limit to what the earth's climate system could tolerate, that limit could serve as the concentration target. It would probably not matter much climatically how that limit was approached. The optimal trajectory would probably include a continuing rise in annual emissions for a few decades, followed by a significant decline as the world approached a sustainable low level compatible with the ceiling on concentration. That is no argument for present inaction: future technologies that people will rely on to save energy or make energy less carbon-intensive 10, 20, or 30 years from now will depend on much more vigorous research and development, much of it at public expense, than governments and private institutions are doing or even contemplating now.

The ceiling is variously proposed as 450, 550, 650, or 750 parts per million, compared with about 360 parts per million today. The Intergovernmental Panel on Climate Change, the scientific advisory

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body associated with these conferences, has rendered no opinion on what level of concentration might ultimately become intolerable. Without that decision, there can be no long-range plan.

In the short run, there will almost certainly be innumerable modest but worthwhile opportunities for reducing carbon emissions. National representatives from the developed countries are counting on it. They are proposing reductions of 10 or 15 percent in annual emissions for most developed countries during the coming decade or so. If such reductions are seriously pursued—an open question—a rising trend in emissions would be superimposed on a short-term effort to limit actual emissions.

A program of short-term reductions would help governments learn more about emissions and how much they can be reduced by different measures. But the prevailing sentiment seems to be that emissions can be brought down and kept down in the OECD countries. It is not yet politically correct to acknowledge that global emissions are bound to increase for many decades, especially as nations like China experience economic growth and greater energy use.

When the OECD countries do get serious about combating climate change, they should focus on actions—policies, programs, taxes, subsidies, regulations, investments, energy technology research and development—that governments can actually take or bring about that will affect emissions. Commitments to targets and timetables are inherently flawed. They are pegged some years into the future, generally the further the better. Moreover, most governments cannot predict their policies' impact on emissions.

To pick an unrealistic example, if the United States committed itself to raising the tax on gasoline by ten cents per gallon per year for the next 15 years, any agency could discern whether the tax actually went up a dime per year, and the U.S. government would know exactly what it was committed to doing. But nobody can predict what that tax would do to emissions by the end of 15 years.

GREENHOUSE POLITICS

Slowing global warming is a political problem. The cost will be relatively low: a few trillion dollars over the next 30 or 40 years, out of an OECD gross product rising from \$15 trillion to \$30 trillion or \$40 trillion annually. But any greenhouse program that is not outrageously inefficient will have to address carbon emissions in China, whose current emissions are half the United States' but will be several times the U.S. level in 2050 if left unchecked. The OECD countries can curtail their own emissions through regulation, which, although inefficient, is politically more acceptable than taxes because the costs remain invisible. The developed-country expense of curtailing Chinese emissions will require visible transfers of budgeted resources. It will look like the foreign aid it actually is, although it will benefit China no more than India or Nigeria. Building non-carbon or carbon-efficient electric power in China will look like aid to China, not climate relief for the world.

There remains a nagging issue that is never addressed at meetings on global warming policy. The future beneficiaries of these policies in developing countries will almost certainly be better off than their grandparents, today's residents of those countries. Alternative uses of

resources devoted to ameliorating climate change should be considered. Namely, does it make more sense to invest directly in the development of these countries?

There are two issues here. One is whether, in benefits three or four generations hence, the return for investing directly in public health, education, water resources, infrastructure, industry, agricultural productivity, and family planning is as great as that for investing in reduced climate change. The second is whether the benefits accrue earlier, to people who more desperately need the help. Is there something escapist about discussing two percent of GNP to be invested in the welfare of future generations when nothing is done for their contemporary ancestors, a third of whom are so undernourished that a case of measles can kill?

If there were aid to divide between Bangladesh and Singapore, would anybody propose giving any of it to Singapore? In 50 or 75 years, when climate change may be a significant reality, Bangladesh probably will have progressed to the level of Singapore today. Should anyone propose investing heavily in the welfare of those future Bangladeshis when the alternative is to help Bangladesh today? People worry that the sea level may rise half a meter in the next century from global warming and that large populated areas of Bangladesh may flood. But Bangladesh already suffers terrible floods.

The need for greenhouse gas abatement cannot logically be separated from the developing world's need for immediate economic improvement. The trade-off should be faced. It probably won't be. ☺

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Our Real China Problem

by MARK HERTSGAARD

The price of China's surging economy is a vast degradation of the environment, with planetary implications. Although the Chinese government knows the environment needs protecting, writes the author, who spent six weeks inside China investigating the growing environmental crisis, it fears that doing the right thing could be political suicide

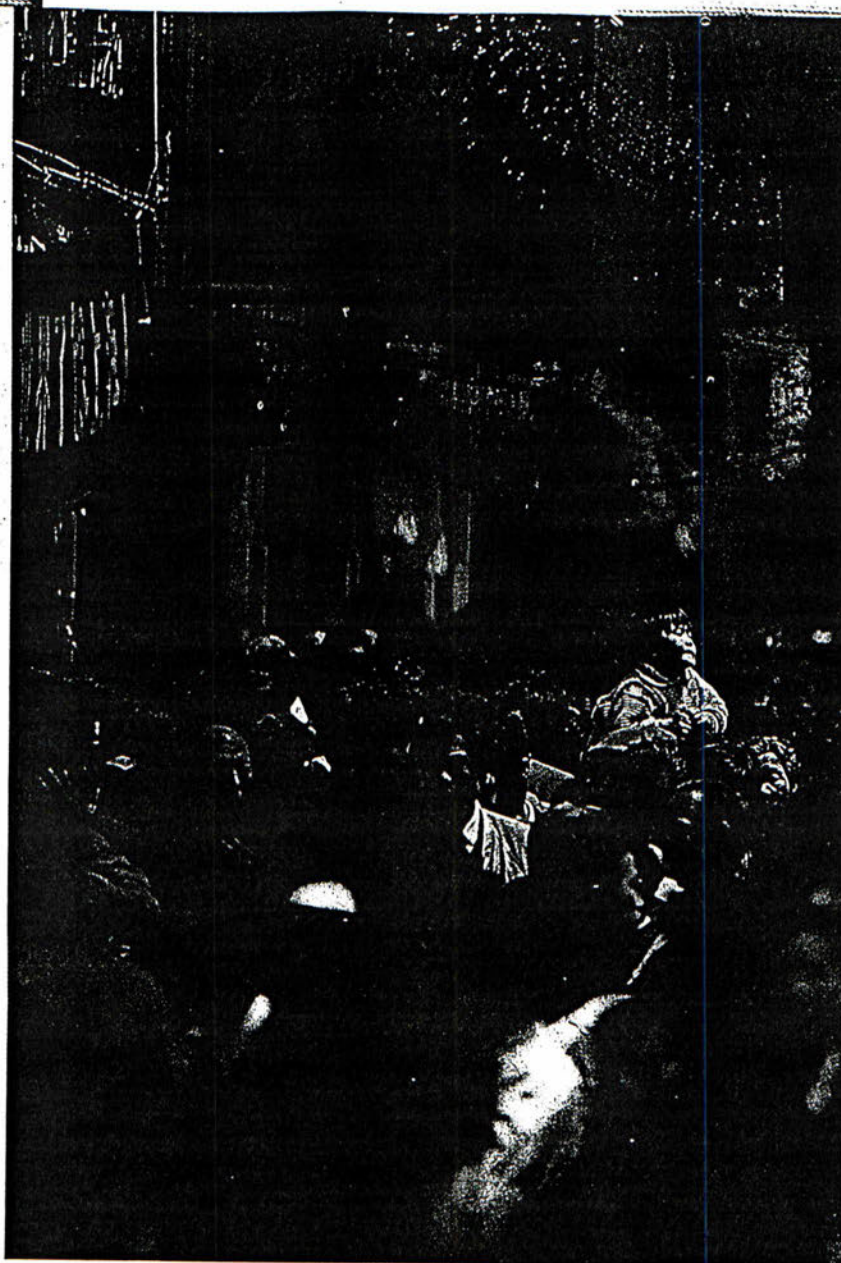


CHONGQING, the Yangtze River city that Americans may know as Chungking, is a naturally foggy place. It also suffers some of the worst pollution in all China, which puts it among the strong candidates for most polluted city in the world. When the fog and the pollution are both at their thickest, locals say, "if you stretch your hand out in front of your face, you cannot see your fingers."

Visibility was somewhat better than that when I visited Chongqing one morning recently. Perched high above the Jialin River, which also flows through the city, I peered into the dank grayness before me. I could dimly make

out a black-and-white tugboat hugging the far shore of the river and, beyond that, the outlines of what might be office buildings. This was the view from the back of the Chongqing Paper Factory, a massive state-owned facility that local environmental officials had singled out as evidence of how well they were cleaning up Chongqing. Built in the 1940s, the factory had been for a long time a terrible polluter, discharging enough chlorine and other toxic chemicals into the Jialin "to cover the entire river with white foam," according to a top official of the Chongqing Environmental Protection Bureau who must remain nameless. Now, however, the official bragged in an interview, the factory had been all but shut down. "Our strategy has been to press them to death!" he said.

Early morning in Beijing



At the factory, though, it didn't look that way. The official discouraged me from trying to visit ("I myself would have to seek permission to enter," he said scoldingly), but Zhenbing, my interpreter, and I found the front gate open when we arrived, and since no one stopped us, we simply walked in. At the back of the plant a set of concrete steps led down to the Jialin River, perhaps eighty yards below. Halfway down Zhenbing and I cut left across the exposed riverbank, our shoes leaving clear prints on the dark, sandy soil.

Within seconds we saw a broad stream of bubbling water cascading out the back of the plant and down the hillside. The astringent odor of chlorine attacked our nostrils, and once we reached the stream's edge, the smell was so

Seeking elbow room, Shanghai

powerful that we immediately backed away. Below us, where the discharge emptied into the Jialin, a frothy white plume was spreading across the slow-moving river.

Fifty yards farther on we encountered a second stream, this one a mere foot wide but clogged with pineapple-sized clumps of dried orange foam. Beyond was a third creek. Its stench identified it as household sewage (workers in China's state-owned factories generally live on site or nearby), but its most extraordinary feature was its color—as black as used motor oil. Not ten yards away a grizzled peasant in a dark-blue Mao jacket and trousers (an outfit still worn in China by the poor) bent over a tiny vegetable patch to pick some greens for his midday meal.

All this was dwarfed by what lay ahead. The vapor was what we saw first—wispy white, it hung low in the air, like tear gas. Stepping closer, we heard the sound of gushing water. Not until we were merely footsteps away, however, could we see the source of the commotion: a vast, roaring torrent of white, easily thirty yards wide, splashing down the hillside like a waterfall of boiling milk.

Again the scent of chlorine was unmistakable, but this waterfall was much whiter than the first. Decades of unhindered discharge had left the rocks coated with a creamlike residue, creating a perversely beautiful white-on-white effect. Above us the waterfall had bent trees sideways; below, it split into five channels before pouring into the unfortunate Jialin. All this and yet the factory, as one worker had informed us, was operating at about 25 percent of capacity.

Hoping to leave the factory grounds by another exit, Zhenbing and I were trudging up a service road when a man wearing the olive-green greatcoat of the Chinese military came running directly at us. It seemed that our unauthorized factory tour might end badly after all. But no. Military greatcoats turn out to be a bit like Mao jackets in China these days: lots of people wear them, because

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they are cheap and functional. In any case, this man had different worries. Liquid was spilling from two large, loosely connected hoses by the side of the road, one leading back up to the factory and the other stretching down to the river. The man barked orders at two workers straddling the hoses, and they stepped back. Then, without a word of warning to Zhenbing and me—though we were standing only five feet away—he knelt and tightened the connection between the hoses.

Instantly he was engulfed in an explosion of gas. But he was ready for it, and in one fluid motion he straightened and started sprinting back along the road, vanishing behind the billowing cloud of chlorine after two steps. Zhenbing and I were not ready for it, but forward was the only way out, so we held our breath and plunged after him. Six running strides brought us past the worst of it, but even then we were surrounded by huge puffs of gas, which started us coughing fiercely.

Thirty yards up the road we were still sputtering when we passed three dump trucks parked against the factory wall. A dozen workers were lounging in the backs of the trucks. The man in the greatcoat, who had run all the way here, was bending down to tie his shoe. Chlorine is the chemical that was used to kill soldiers in the poison-gas attacks of the First World War, but the men in the trucks showed no concern about the vapors floating past their heads. They only elbowed one another and stared at the foreigner trudging past their factory—evidently a far more unusual sight.

Zhenbing and I walked in silence to the plant's side exit and left. We were in the middle of a six-week trip through China to investigate the environmental crisis, and it was not a cheering assignment. In Beijing, Xi'an, and other cities of the north Zhenbing and I had walked in air so thick with coal dust and car fumes that even sunny days looked overcast and foggy. In the bone-dry province of Shanxi, a day's journey west of Beijing, we had ridden by train for hours without seeing anything that resembled woods—there were only a few

scattered, spindly trees, which looked ready to expire any minute. Everywhere, it seemed, the land had been scalped, the water poisoned, the air made toxic and dark.

Despite witnessing all this, Zhenbing was not exactly a militant environmentalist. Born into a very poor rural family thirty years ago, he, like most Chinese I had met, was quite willing to put up with filthy air and polluted water if it meant more jobs, better pay, a chance to get ahead. But today's experience had shaken my new friend. Outside the factory we were waiting for the bus back downtown. I was scribbling in my notebook when, behind me, I heard Zhenbing murmuring, as if in a dream, "My poor country. My poor country."

The "Soft-Law" Syndrome

HUMAN rights, China's possible admission to the World Trade Organization, its alleged Washington influence-buying—these are the issues that have made international headlines in the months leading up to this fall's Sino-U.S. summit. But soon China's environmental crisis is bound to command equal attention. China claims that its population is 1.22 billion people (as of the end of 1996). The true number is certainly higher than that. But even the official figure means that nearly one out of every four human beings on earth lives in China. The Chinese economy is ranked anywhere from the third to the seventh largest in the world, and is expected to be No. 1 by 2010. Incomes have doubled since Deng Xiaoping initiated his marketplace reforms in 1979, and the environmental side effects have been devastating.

At least five of the cities with the worst air pollution in the world are in China. Sixty to 90 percent of the rainfall in Guangdong, the southern province that is the center of China's economic boom, is acid rain. Since nearly all the gasoline in China is leaded (Beijing switched to unleaded gas in June), and 80 percent of the coal isn't "washed" before being burned, people's lungs and

nervous systems are bombarded by an extraordinary volume and variety of deadly poisons. One of every four deaths in China is caused by lung disease, brought about by the air pollution and the increasingly fashionable habit of cigarette smoking. Suburban sprawl and soil erosion gobbled up more than 86 million acres of farmland from 1950 to 1990—as much as all the farmland in Germany, France, and the United Kingdom. Farmland losses have continued in the 1990s, raising questions about China's ability to feed itself in years to come, especially as rising incomes lead to more meat-intensive diets.

Even the government's official policy pronouncements, which invariably overaccentuate the positive, admit that environmental degradation in China will get worse before it gets better. For China's newfound wealth has only whetted its citizens' appetite for more. China's huge population wants to join the global middle class, with everything that entails: cars, air-conditioners, closets full of clothes, jet travel. Rising consumer demand has already resulted in chronic widespread electricity shortages. Thus China plans to build more than a hundred new power stations over the next decade, adding 18,000 megawatts of capacity every year—roughly the equivalent of Louisiana's entire power grid. By 2020 its coal consumption will have doubled, if not tripled. All this will not only worsen the country's acid-rain and air-pollution problems; it will endanger the entire planet, by accelerating the global warming that scientists say is already under way.

China's huge population and grand economic ambitions make it the most important environmental actor in the world today, with the single exception of the United States. Like the United States, China could all but single-handedly make climate change, ozone depletion, and a host of other hazards a reality for people all over the world. What happens in China is therefore central to one of the great questions of our time: Will human civilization survive the many environmental pressures crowding in on it at the end of the twentieth century?

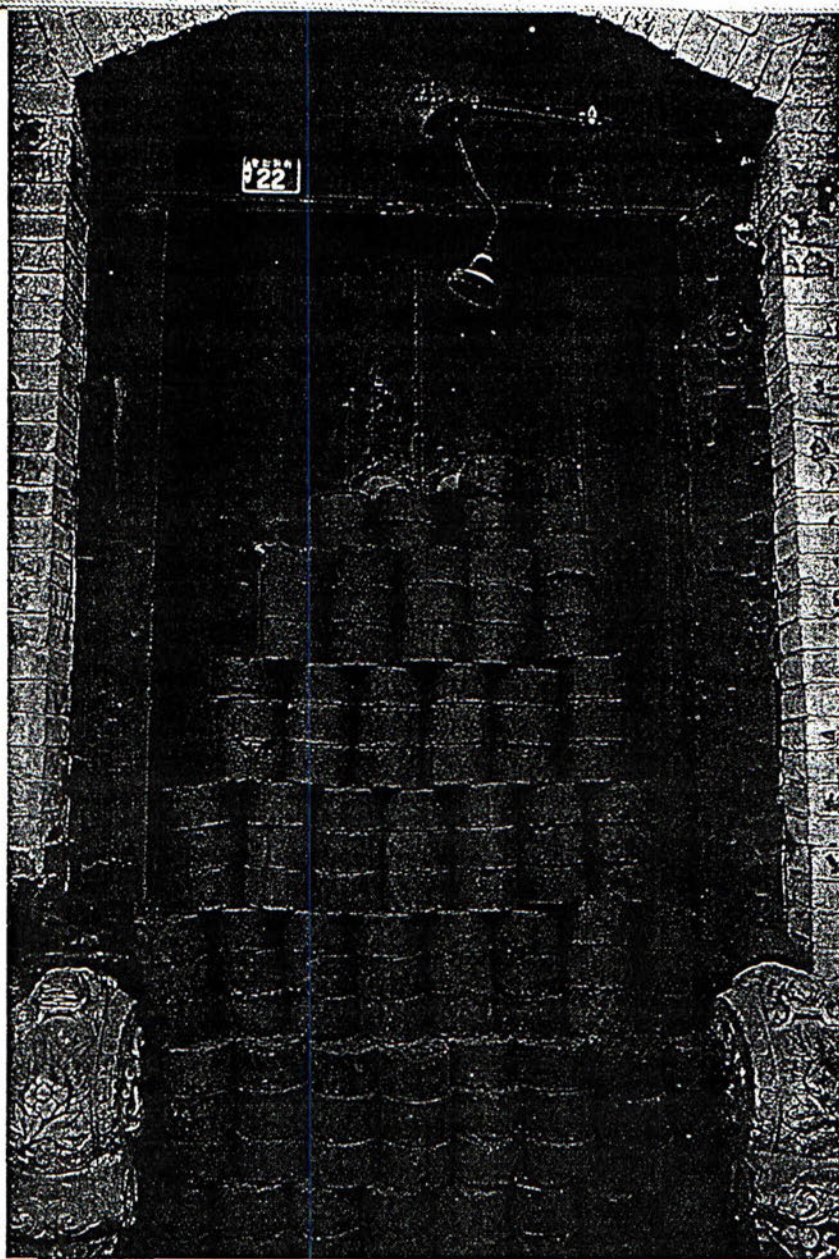
A coal supply in Beijing

Like governments the world over, China's leaders have learned to say the right things about the environment. In 1992 China was an enthusiastic participant in the United Nations Earth Summit. In July of last year President Jiang Zemin and Premier Li Peng began to speak out against environmental destruction and to urge a shift toward "sustainable development." China has also adopted comprehensive environmental laws and regulations that on paper compare favorably with—indeed, were often modeled on—their Western equivalents.

But the future is shaped less by official rhetoric than by what actually happens on the ground, and as the Chongqing Paper Factory illustrates, environmental laws are often simply not implemented in China. This is no state secret; most of the dozens of government officials I interviewed acknowledged the pervasiveness of the problem, often without prompting. Sometimes the culprit is corruption: factory owners use *guanxi*—personal connections—or bribery to get local regulators to look the other way. Beijing either can't or won't stop them. As the ancient Chinese adage says, "The mountains are high, and the Emperor is far away."

Even more common, and intractable, is the so-called soft-law syndrome. Under soft law the government excuses state-owned companies from full compliance with environmental laws and standards; the law is "softened" in order to spare the companies (and the state banks supporting them) from bankruptcy and to shield their workers from unemployment. In contrast to corruption, soft law is not something Chinese officials like to talk about.

Right after the explosion at the paper factory I had lunch with Hu Jiquan, a top government economist in Chongqing. Keen to encourage foreign investment, Hu was pledging that the local environment would improve in years to come, thanks to tougher law enforcement. "We will close factories if we have to," Hu said. "We've already closed more than two hundred of them." Hav-



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ing just returned from the chlorine waterfall, I couldn't help challenging this rosy vision, and Hu was honest enough to concede that short-term economic considerations often do override environmental goals in China. "The trouble is, if we close that factory, many workers will lose their jobs, and our government would rather support the workers than protect the water," he said with a shrug.

Hu then extended his explanation, though he first told Zhenbing not to translate this part for the foreigner. The government of Chongqing knew perfectly well that the paper plant should be closed immediately. In fact, it had tried to shut the plant months earlier (just as the unnamed official quoted earlier had bragged). "but the local peo-

ple and leaders complained a lot, so the government backed off. It was afraid of social unrest."

This is the crux of the Chinese environmental problem. The government knows the environment needs protecting, but it fears the social consequences. Bluntly put, it worries that doing the right thing environmentally could be political suicide.

A Long Nightmare of Deprivation

THE government would like to protect the environment for a very simple reason: senior officials have come to realize that environmental degradation costs money—indeed, it threatens to derail China's entire economic-modernization program. Li Yining, a grand old man of market economics, who was one of the masterminds of China's transition to private enterprise, told me in an interview that "inadequate ecological protection" was one of the few things that could prevent China's economy from growing at 10 percent a year "for a very long time." Acid rain, for example, causes \$2.8 billion worth of damage to forests, agriculture, and industry in China every year. Air pollution raises health-care costs and lowers workers' productivity. Deforestation worsens the floods that already kill thousands of Chinese every year. The list goes on. The official *China Daily* estimates that the annual cost of China's environmental degradation is seven percent of the gross domestic product. Vaclav Smil, a geographer at the University of Manitoba and a leading expert on China's environment, calculates the cost at no less than 10 to 15 percent of GDP. If Smil is correct, then the much-celebrated growth of China's economy is, in effect, being canceled out by associated environmental degradation. In short, the economy is running hard but poisoning its own future. The problem, of course, is that faithfully implementing environmental laws would require closing hundreds of thousands of factories and throwing tens of millions of people out of work.

The Chinese people have long and bitter experience with scarcity and are understandably eager to leave it behind. As recently as 1949 life expectancy was only thirty-nine years, a level not seen in Europe since the Industrial Revolution. All Chinese over forty have firsthand memories of the greatest man-made disaster of the twentieth century, the famine caused by Mao Zedong's Great Leap Forward campaign. As Jasper Becker, the Beijing bureau chief of the *South China Morning Post*, documents in *Hungry Ghosts* (1997), the famine killed some 30 million people from 1959 to 1961 and brought starvation, misery, and even cannibalism to rural China.

Today the average Chinese life-span is about seventy years, yet scores of millions still live in desperate poverty. In one village I visited in Sichuan province, on a very cold day when my feet were only just comfortable inside heavily insulated hiking boots, I watched a grim-faced peasant woman washing her family's clothes in the river, her bare feet dangling in the frigid water. On the other side of the village a man, also barefoot, stamped around on a pile of loose, moist coal, looking like an eighteenth-century European peasant crushing grapes for wine. In fact he was manufacturing the briquettes of fuel whose carcinogenic combustion would provide what little heat he and his neighbors enjoyed in their windowless mud huts.

Now that China is at last awakening from its long nightmare of deprivation, the Communist Party's tattered legitimacy depends on keeping the economic expansion going, and extending it to the many regions that still lag behind. Yet the marketplace reforms that have sparked double-digit economic growth in China have also brought pain to vast portions of the population. As a result, there has been much more social unrest in China in recent years than most outsiders realize. The mass occupation of Beijing's Tiananmen Square in 1989 and the army's subsequent massacre of unarmed demonstrators are well known. But similarly militant protests took place at the same time in cities and towns throughout China; that news did

not reach the outside world because there were no foreign journalists on hand to report it. Recently, as the transition from state-organized economy to private-market free-for-all has touched the lives of more and more Chinese, thousands of wildcat strikes and street demonstrations have occurred across the country, especially in Manchuria, a bastion of heavy industry, where unemployment rates now exceed 30 percent. WE DON'T WANT DEMOCRACY, WE WANT TO SURVIVE, declared one protest banner in the city of Shenyang.

All this has left Party leaders determined to keep the economy growing no matter what. They believe that Tiananmen Square was not primarily about politics—about the issues of democracy and human rights that dominated Western news reports—but about economics. There is truth to this. Hundreds of thousands of average Chinese followed the students into the streets not only because they yearned to breathe free but also because they were angry about hyperinflation, corruption, and their own uncertain economic prospects. The Party saw its life flash before its eyes in 1989, and it got a second warning in 1991, when its erstwhile "big brother," the Communist Party in the Soviet Union, fell from power. The Chinese Communists are determined not to suffer the same fate. As Deng Xiaoping warned his fellow Party leaders after Tiananmen Square, if the Party cannot improve the welfare of the people, the people will go into the streets.

Environmental Revolts

BUT there is a Catch-22. The people, it seems, will also go into the streets if their local environment becomes intolerably polluted—if, for example, they are deprived of safe drinking water.

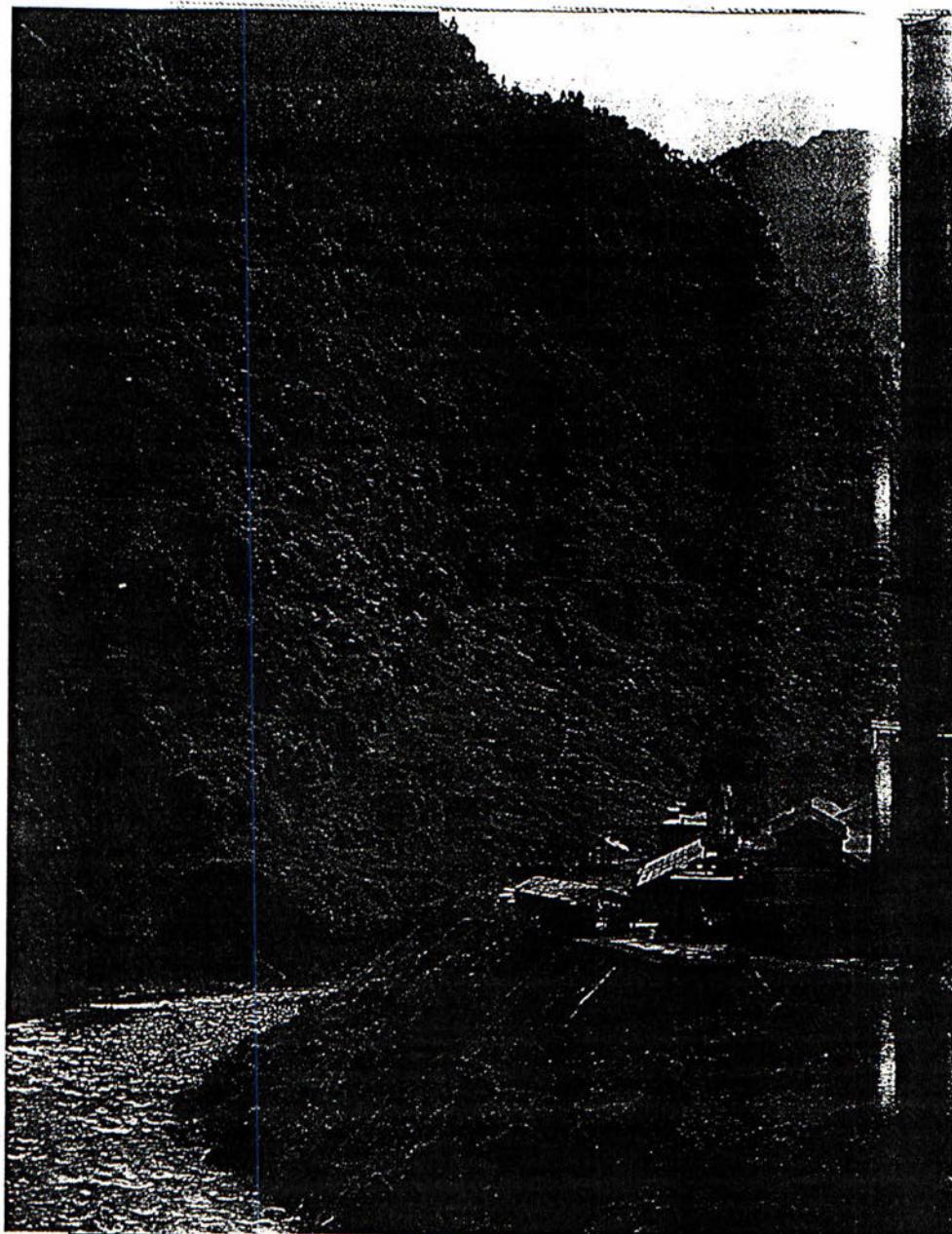
"There were social revolts along the Huai River, so the State Council [China's Cabinet] had to react," one retired senior government official told me, recalling the most dramatic government crackdown on pollution to date. The

*Industrial pollution in rural
Sichuan and urban Shenyang*

Huai region, located about 200 miles northwest of Shanghai, is the most densely populated of China's seven major river basins: 110 million inhabitants share 108,000 square miles of land. The river had been severely polluted for years, but it got drastically worse in July of 1994, when a sudden flood of toxins turned the river black and deadly for weeks. Hundreds of thousands of people were left without drinking water, several thousand were treated for dysentery, diarrhea, and vomiting, and 26 million pounds of fish were killed.

Popular outrage took many forms, including pelting local officials with eggs when they blocked foreign journalists from filming the river. The most extraordinary moment came when a top leader from Beijing, Song Jian, the elderly chairman of the State Council's environment committee, arrived to inspect the site. Somehow one brave and resourceful peasant managed to give Song a glass of river water to drink. Song took a sip of the putrid brew; then he turned to the local and provincial officials flanking him and shrewdly invited them to drain the glass. These officials had ignored earlier pleas to close the paper, leather, and dyeing factories whose waste fouled the Huai. Song told them they would be sacked if the offending factories were not shut promptly. Last summer the government closed 999 paper mills and untold numbers of other factories.

If Beijing fears social unrest so much, why did it shut all those factories? One reason, said the retired senior government official, was that "for years no boy from [certain villages in] the Huai River area has been healthy enough to pass the physical examination required to enter the army." Even more important, said other observers, these factories were "township and village enterprises," or TVEs—small, privately owned plants that employed no more than a few dozen workers each. TVEs employed at most tens of thousands of moonlighting peasants who had never stopped work-



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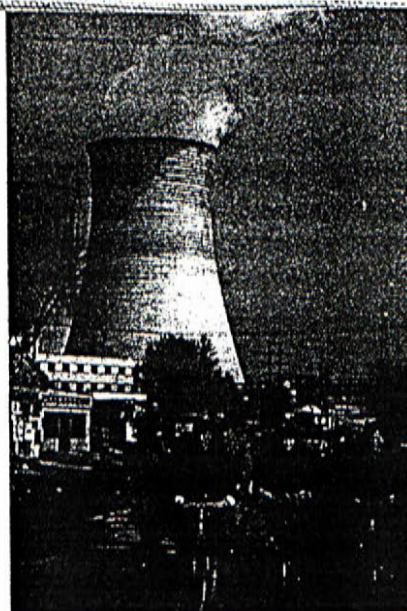
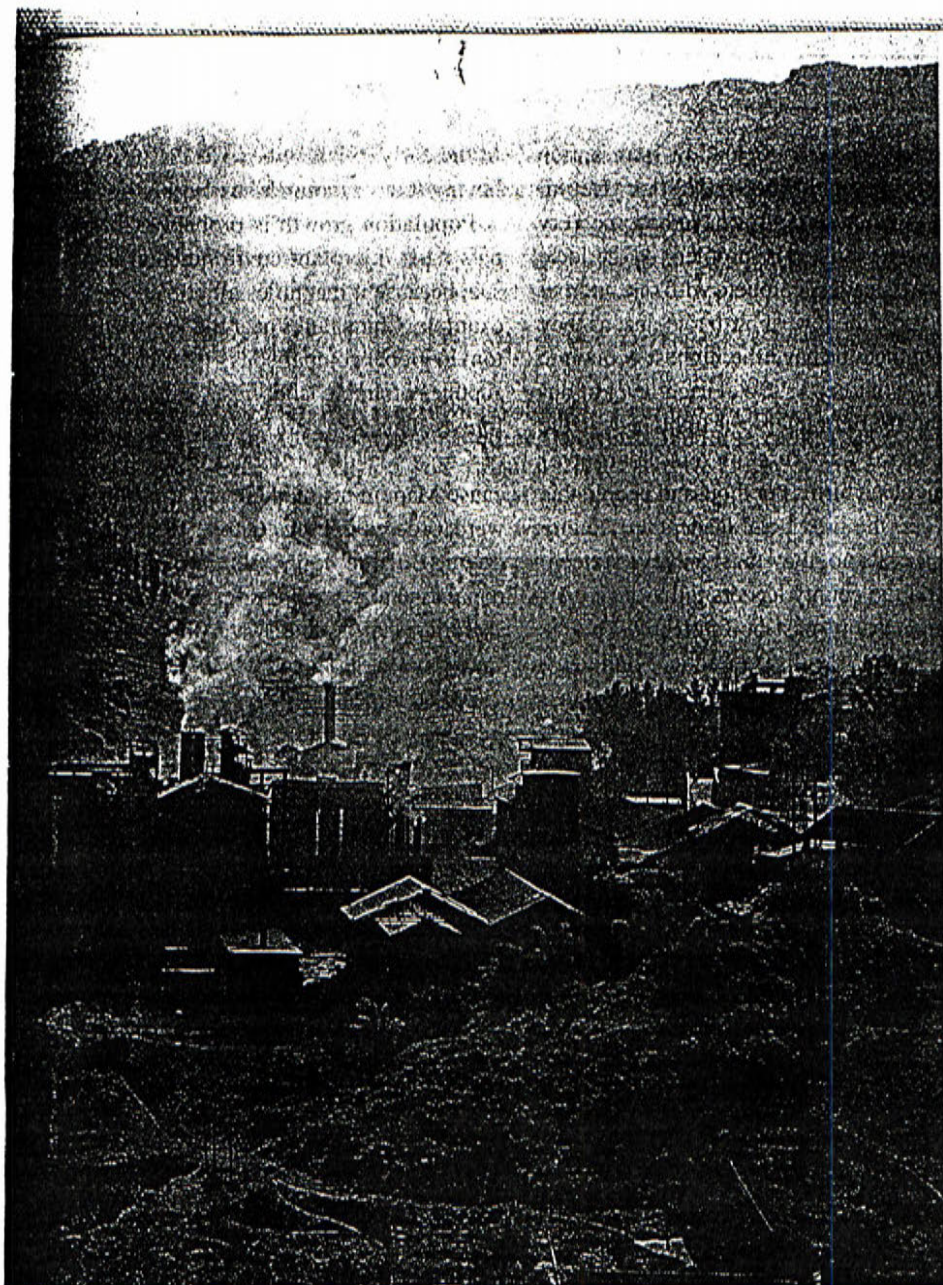
SCALPED, THE WATER

POISONED, THE AIR MADE

TOXIC AND DARK.

ing in their fields. Against that fact the government had to weigh the anger of the many hundreds of thousands of people who relied on the Huai for their drinking water—people who had already demonstrated a capacity for protest. There was no question which group should be placated.

Beijing went national with the campaign against TVEs in August of last year, when the State Council ordered some 60,000 heavily polluting factories to close. "That sounds like a big number, but in a country as large as China it amounts to only one percent of the total number of enterprises and workers," Ye Requi, a deputy administrator of the National Environmental Protection Agency, told me. Ye nevertheless argued that the closings "show the seriousness of the



government in this area." Unfortunately, TVEs account for only a fraction of China's pollution—estimates range from five to 30 percent. To make a real dent in the problem, state-owned enterprises like the Chongqing Paper Factory would have to be closed. But fear of social unrest makes that problematic, as it does the recent pledge by Party leaders to end state ownership of 10,000 of China's 13,000 largest industrial enterprises.

Thus China's leaders find themselves in a box. They can, in the name of economic growth, leave the big factories and other environmental hazards essentially undisturbed and hope that the resulting pollution and ecological destruction do not trigger either unmanageable popular protest or long-run economic stagnation. Or they can clamp

down, clean up, and face the double short-term risk of a stalled economy and a wrathful proletariat. Not an enviable choice, but for Chinese leaders not a difficult one either. As Chen Qi, the top environmental official in Liaoning, a region of bitter winter cold and 30 percent unemployment, explained to me, "Heavy pollution may kill you in a hundred days, but without enough heat and food you die in three."

The Collapse of the One-Child Policy

THE most pervasive environment-related myth about China is that couples are allowed to have only one child. But in truth the one-child policy has long been "more

slogan than reality," in the words of a top Chinese demographer. The Party was forced by popular resistance to back off from the policy—another example of social unrest driving government decisions. Enraged peasants were actually attacking and killing local Party leaders and their families.

When one Party boss in southern China forced a woman to abort in her seventh month of pregnancy, he lived to regret it. The woman and her husband already had a daughter, but like all Chinese peasants, they wanted a son—the only old-age insurance available in China. During the abortion it was discovered that the woman had been carrying two sons—twins. When the father heard this news, Steven W. Mosher reports in *Broken Earth* (1983), he ex-

ploded in a murderous rage and ran through the village to the house of the Party leader. There the father grabbed the leader's two sons, aged eight and ten, and hurled them down the courtyard well. He then leaped in after them, closing the circle of death with suicide.

Such attacks apparently convinced Beijing that the one-child policy posed a threat to Party authority. In 1984, five years after the policy was inaugurated, it was relaxed, though in rural areas only.

Today the one-child family is all but unheard of in rural China, where nearly three out of four Chinese live. In my six weeks of travel, which took me from Liaoning and Hebei provinces in the north through Shanxi and Sichuan in the middle west to Hunan and Guangdong in the south, I talked with scores of peasant families. I was the first foreigner that some of these peasants, especially the children, had ever seen. Every family I met had at least two children; many had three or four, and some had five or more. In a village near the Pearl River I shot baskets with a boy of ten who shyly told me that he was the youngest of seven. It seems that the only Chinese who do adhere to the one-child target are urban dwellers—especially those who work directly for the government and thus can be easily monitored, and penalized through the withholding of salaries, promotions, and the like.

All of which casts strong doubt on official claims regarding China's population: that Chinese women average only two births each; that the population will not reach 1.5 billion until 2030; that it will peak at 1.6 billion in 2046. Although some newly affluent families are, in the familiar demographic pattern, having fewer children, the gross numbers are almost certainly greater. The truth is that no one knows exactly how big China's population is, or how fast it is growing.

"Ten years ago China had a reputation for having the best population statistics in the world, because there was no way for its people to hide what they were doing from the government," Gu Baochang, the associate director of the

official China Population Information and Research Center, told me. "But today Chinese figures have become very questionable. The problem is, the local Party leaders compete with one another to post the lowest birth rate, just as they compete to have the highest economic growth rate. . . . So at each level of authority the targets get tightened. If the central government sets a target of eighteen births per thousand people this year, the provincial leaders tell county officials no, they must achieve sixteen, and the county leaders tell village officials no, it must be fourteen." The regrettable results, Gu added, include a renewed coercion of women, continued abortions of female fetuses, and underreporting of the nation's true birth rates up the chain of command.

Yet even scrupulously honest reporting would not change the fundamental fact that Chinese leaders waited too long to attack the problem. In the late 1950s Mao brushed aside warnings about the approaching difficulties, arguing that China could always produce its way out of trouble, since "every mouth is born with two hands attached." Not until 1971, when the population already exceeded 850 million, did China begin pursuing birth control in earnest. The "later, longer, fewer" program urged later marriages, increased spacing between children, and a limit of two children per family. It was both less coercive and more successful than the subsequent one-child policy, reducing average births per woman from 5.8 in 1970 to 2.8 by 1977—a remarkable achievement. But it was not enough. Because the base number—China's population—was already so large, even this lower rate of growth translated into huge absolute increases.

That dynamic still operates today, which may be why President Jiang in 1996 spoke of reanimating the one-child policy. Even if the official Chinese claim of 2.0 births per woman is accurate, that amounts to an annual increase of 15 million people. "So even though China has reduced its fertility as much as possible," Gu explained to me, "the total population is still growing as much as it was

in the early 1970s, when women were having four or more children each."

Population growth is probably China's most important environmental issue, because it magnifies all others. For example, China ranks near the very bottom in global comparisons of per capita supplies of arable land, fresh water, and forests. This is in part because so much of China's land is arid, and in part because Mao, in his mad Great Leap Forward, ordered millions of trees to be cut down. But the country's gargantuan population makes a bad situation worse.

Beijing has so little water that Party leaders have questioned whether the city can remain the capital, according to Yu Yuefeng, the staff director of the Environmental Protection and Natural Resources Conservation Committee of the National People's Congress. With a nervous chuckle, Yu told me that the problem has eased in the past two years, thanks to higher than normal rainfall, but, he conceded, "This is a roll of the dice. We have to rely on the gods to keep the rains coming." In his privileged Party position Yu can afford to laugh. The problem is not so amusing for some 50 million people in rural northern China who must walk for miles or wait for days to obtain any drinking water at all. As for farmland, population growth has reduced the supply per person to about the size of one third of a tennis court.

Everywhere I visited, I noticed that China *felt* crowded. How could it not? China's population is five times that of the United States, even though the two countries occupy roughly the same amount of land area. But since deserts and mountains make the western half of China inhospitable to human settlement, 90 percent of its population lives in the east. Imagine, then, almost nine times as many people living east of the Mississippi as live there in real life. That is everyday reality in China.

In all the thousands of miles of scenery I observed during my travels, I cannot recall a single place without signs of intense human settlement. Open space was for farming, period, and was cultivated to within an inch of its life, with furrows reaching right to the edge



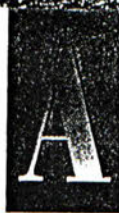
Field and factory, Shenzhen

the way forward, just as they honestly believe that using headlights at night wastes gas and causes accidents), making one's way across town is a stressful adventure. Negotiating the sidewalks is no better, partly because the pavement is invariably covered with many kinds of litter: plastic bags, peanut shells, cigarette boxes, food cartons, construction-site refuse, and other unsavory items. Pedestrians don't necessarily try to crash into one another, but they certainly don't shrink from it. Intersections are bedlam. There are no STOP signs, very few traffic lights, and no concept of right-of-way, so everyone simply presses forward at all times. Crossing the street often resembles a game of chicken, with pedestrian and driver inching ahead in apparent disregard of each other until someone blinks. In the swarming cacophony of urban China one presses forward or gets run over.

Public transportation in China is not for the claustrophobic, to put it mildly. In trains and buses one's body is constantly pressed against, usually from two or more sides, by the bodies of other passengers, who seem neither to notice nor to care. As they have done with so many discomforts over the years, the Chinese have grown used to such close proximity. Zhenbing and I were once standing in line at a train station, waiting to offer the bribe necessary to gain sleeper tickets, when suddenly I felt myself grabbed from behind and moved aside as roughly as if I were blocking Patrick Ewing's path to the basket. I'm not the fighting type, but I instinctively whirled around to find . . . no one. The culprit, a man in his sixties, had already hurried past me, intent on his destination. There had been no malice in his gesture, only the natural impatience of an animal who has been confined in too small a space with too many others for too long a time. I tried to take a calming deep breath, but my lungs couldn't reach it. Not for the last time in China, I felt as if I had stumbled into some fiendish laboratory experiment that was mushrooming beyond control.

of any road and curling into hollows as small as pitcher's mounds. In daylight hours the cities become churning masses of congestion. Although China has only one car for every 150 inhabitants (the United States has one for every two), that still means a huge number of cars. Jockeying for space alongside them are sky-blue cargo trucks, ancient city buses, an occasional horse-drawn wagon, and an endless fleet of bicycles—many of them three-wheeled cargo bikes, transporting everything from bulging sacks of fruit and vegetables to freshly skinned sides of pork to couches, toilets, and televisions.

Traffic jams are the rule. Since no vehicle seems capable of forward motion without frequent beeps of its horn (Chinese drivers say this is necessary to clear



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The Meaning of Spitting

WALKING down the sidewalk in China was a challenge not only because of all the people I had to dodge but also because of the puddles of spit they left in my path. Everyone, it seems, spits in China—on the sidewalk, in the classroom, on the train, in restaurants. The habit is universal. During a daylong train ride from Shenyang I was wedged between a sniffing peasant girl on one side and her older brother or cousin on the other. We had “hard-seat” tickets—the lowest class, and the only ones available. I was a curiosity to these peasants, and to show friendship the young man offered me a few of the sunflower seeds he and his family of seven were munching. Upon finishing his own seeds, he washed them down with a swig of tea and then, with a deep hawking sound, summoned from his throat a prodigious gob of phlegm, which he casually spat onto the floor in front of us. He then reached out his foot and rubbed the spit into the floor, as if stamping out a cigarette. It was 8:15 A.M., there were fourteen more hours to Beijing, and lots more spittle was loosed throughout that packed compartment before we arrived.

The Communists tried to eradicate spitting when they came to power, in 1949; it was one of their first exhortations to the masses. They failed. Spitting lives on because it is a habit of peasant life, and the vast majority of Chinese are still peasants or only one generation removed. The habit apparently derives from the basic conditions of peasant life, which include rampant lung infections and other respiratory problems. These, in turn, result from a historical fact with enormous environmental implications: for centuries Chinese peasants lived with very little heat in wintertime. They burned wood if they were lucky, but more often they used dried leaves and crop stalks, as Zhenbing remembers his family doing exclusively before he turned ten, in 1976. Today peasants still rely on such “biomass” fuels for 70 percent of their energy consumption.

Coal therefore represents a great advance for the Chinese people; it keeps a body much warmer. But it does so at terrible cost: the Chinese are dying in frightful numbers from coal smoke. Twenty-six percent of all deaths in China are caused by respiratory disease. Coal smoke is not the sole cause of these deaths, but it is a major contributor. Outdoor air pollution, of which coal smoke is the main component, is second only to cigarette smoking as a cause of lung cancer in China's cities, where lung cancers have increased 18.5 percent since 1988. Coal is also a central element in the “indoor pollution” from home stoves that is the chief cause of rural lung cancers, especially among women.

There is little hope of relief. One of the few natural resources China has in abundance, coal accounts for three quarters of total energy consumption. The country's power stations and manufacturing plants are fueled overwhelmingly by coal. Factor in coal's dominant role in keeping people warm, along with the primitive technologies often employed, and it's no surprise that Chinese cities, especially in the industrial, frigid north, have some of the filthiest air on the planet.

Levels of “total suspended particulates,” or TSP (soot and dust, in lay terms), are appallingly high in China—often four to nine times as high as the World Health Organization's guideline of 60 to 90 micrograms per cubic meter annually. Most American cities have readings in the 40-to-60 range; New York measures 62. In some northern cities in China the level climbs as high as 400, 500, or even 800 in wintertime.

The Ghosts in Tiananmen Square

VISITORS to Beijing can forget seeing blue skies in winter, except immediately after Siberian winds have roared through. By chance such winds struck the capital the night of my arrival. But two days later the winds calmed, and over the following week and a half I witnessed the sickening descent of the city into murk and gloom.

At noon on my third day, a Saturday, after barely twelve hours of still air, I took a bus across town to a luncheon interview, traveling the main east-west boulevard past Tiananmen Square. Directly above me the sky was still blue, but in the distance a fuzzy pale-gray layer of smog already frosted the skyline. When I came back outside a mere four hours later, the layer had nearly doubled in thickness, its blurry density giving the sky an otherworldly aspect as it melted into a sunset of vivid pinks and yellows. The pollution accumulated with each passing day, and by Thursday I was used to waking up to a dull gray-white haze that rested on the city skyline like a lid on a wok.

On Friday morning I took a taxi to the National People's Congress. Passing through the larger intersections of Beijing, I looked both ways down the cross streets, but my line of sight extended no farther than about 200 yards. When I reached Tiananmen Square, at 8:45, the sun hung white and barely visible above the southern gate to the Imperial Palace, like a dim light bulb in a barroom full of cigarette smoke. Gazing north, past Mao's mausoleum and the site of the 1989 massacre, I could not see the far end of the square, much less the Forbidden City beyond it. The pedestrians crossing the square were like spectral figures, half ghost, half flesh, as they disappeared into the gritty mist.

During our travels beyond Beijing, Zhenbing and I fell into a running debate over which city in China had the nastiest air. Was it, in fact, Beijing? Zhenbing, a resident of the capital, wouldn't entertain the possibility. Was it Benxi, in Manchuria, whose pollution was so thick that in the 1980s the city had vanished from satellite photos? Possibly. Though Benxi was now visible again from outer space, local officials admitted that its TSP levels remained very high. What's more, my interviews with residents suggested that what progress had been made stemmed as much from widespread factory bankruptcies as from the government's vaunted cleanup campaign.

For a day I leaned toward Datong, an

ugly, low-slung town known as China's coal-mining capital. Bad as the air was in Beijing, it was unusual there to see smokestacks belching copious amounts of pure-black smoke; the pollution somehow seemed more dispersed. In Datong black emissions were routine and ubiquitous. Nevertheless, Datong was soon supplanted by Taiyuan, its neighbor to the south. Taiyuan, the provincial capital, was another major coal center that seemed to impose no controls on smokestack emissions. But it had a population of four million, nearly five times that of Datong. Its air was as soupy and gray as a foggy day in London, though there was no natural fog within a hundred miles.

Another formidable competitor was Xi'an, the ancient imperial capital known the world over for the enormous collection of terra-cotta warriors buried outside town. A splendid bell tower and massive city wall dating back to the Ming dynasty further enhance Xi'an's reputation as one of China's loveliest cities. But Xi'an's pollution screened these architectural treasures from view. Even on a sunny day the only sign of the orb itself was a patch of sky somewhat brighter than the rest. As a test I timed how long I could stare at that artificially veiled sun without hurting my eyes. After sixty seconds I stopped counting.

Astonishingly, the Chinese I met insisted that their health is not endangered by all this pollution. I developed a dry, rasping cough because I was a foreigner; they, on the other hand, were "used to it." I heard that phrase dozens of times, even from people who should have known better. One leading environmental scholar and advocate in Beijing, for example, assured me that his lungs could tolerate his daily jogs because he had been breathing Beijing's air for years. By that logic, of course, smoking cigarettes poses no health risk so long as one begins in early childhood. He granted the point, but said that since he could not escape Beijing's air, he at least wanted to be as strong and fit as possible.

The biology of cancer seems to be unknown to many Chinese; even well-educated people appear to be unaware

that the human body cannot build up tolerance against industrial carcinogens the way it can against the infections that cause influenza. But the lack of awareness goes deeper. "A tendency to deny unpleasant realities has become part of the Chinese personality in recent decades," according to Orville Schell, the author of many books on China. "A society that has for decades had to ignore so many unjust and irrational things in order to just get along—the injustices of the gulag, families ruined during the Cultural Revolution, other kinds of government barbarity, the lack of a believable news media—is one in which the capacity to avoid recognizing all sorts of problems, including environmental ones, has become essential to survive," Schell says. In addition, most Chinese accept the familiar idea that economic growth requires environmental damage, and they are quite ready to pay that price. "We have a saying in China," one journalist who has tried to raise public awareness of the subject told me. "Is your stomach too full?" In other words, are you so well off you can afford to complain about nothing? This phrase is used for Americans who talk about saving birds and monkeys while there are still many Chinese people who don't have enough food to eat."

400 Green Chinese

THE environmental movement in China, such as it is, thus faces a daunting challenge. The few individuals who dare to work on the issue say that by necessity education is the top priority. Liang Congjie, the founder and president of Friends of Nature, one of the very few independent environmental groups in China, told me that his organization got permission to operate because it registered as a cultural rather than a political group. He added that with a mere 400 members, "Friends of Nature could never oppose the government directly, the way Greenpeace would—that will not work." Liang focuses instead on raising public consciousness, particularly by prodding Chinese jour-

nalists to cover environmental issues more attentively.

It would be hard to overstate the power that the government-run media exercise in China, so, not surprisingly, Liang was glad to see an increase during the past year in media criticism of environmental problems. Much of that increase has been orchestrated by the government itself, specifically the National Environmental Protection Agency. But there are definite limits to what the official media will say. "In my stories," one journalist told me, "I always have to begin with something positive—how NEPA has announced new policies to protect the air, for example—not with how the pollution got there in the first place and what its exact effects are. So people don't know how bad the situation actually is."

Is it cynical to observe that the Chinese media's newfound interest in environmental issues correlates rather neatly with the environmental crack-down on TVEs that Beijing ordered last summer? The coverage will probably continue as long as the Party keeps pressing the environmental issue, but how long will that be? "The anti-pollution campaign may soon blow over," says Jasper Becker, of the *South China Morning Post*. "The pattern is for such campaigns to come and go, each being replaced by another, and then everyone goes back to doing what they were doing before."

Whose Camel Is It?

PRESIDENT Bill Clinton has said that in his meeting with President Jiang Zemin, in October of 1995, he told Jiang that the biggest security threat China posed to the United States was related not to nuclear weapons or trade agreements but to the environment. Specifically, Clinton worried that China would copy America's bad example while pursuing economic development and end up causing terrible air pollution and global warming. Clinton said he could tell that Jiang "hadn't thought about it just like that." No doubt. Jiang was probably

wondering whether his American counterpart could possibly be serious. If ever there was a non-issue for China's leaders, global warming is it.

"Global warming is not on our agenda," a senior official for the Chongqing Environmental Protection Bureau said with a dismissive wave of his hand when I asked about his agency's strategies to reduce emissions of carbon dioxide and other greenhouse gases. As if to underscore his contempt for the issue, the official asserted something he had to know was false—"All the pollution produced in Chongqing is landing here in Chongqing, so it's not a global problem"—before declaring, "We can't start worrying about carbon dioxide until we solve the sulfur dioxide problem." The official was referring to acid rain, which he and his colleagues in China consider more urgent, because acid rain is landing on them and causing tangible damage *today*, whereas carbon-dioxide emissions threaten merely potential, far-off, worldwide damage.

Shortsighted? Yes, but understandable. I arrived in China eager to investigate the issue of climate change, but I almost forgot to raise the point during some interviews. When one is inhaling appallingly polluted air for weeks on end, one tends to focus the questions on that.

China is a greenhouse giant. It has already surpassed the former Soviet Union to become the world's second largest producer of greenhouse gases, trailing only the United States. With its immense coal reserves, huge population, and booming economic growth, China is very likely to triple its greenhouse emissions by 2020. Absent a radical shift in policies elsewhere in the world, that increase will accelerate global climate change, plunging the world into potentially catastrophic territory—melting polar ice caps, raising sea levels, causing more and nastier hurricanes, droughts, and blizzards. China will by no means be immune. Much of its coastline could face severe flooding; perhaps 67 million people could be affected.

Yet China has little patience with Western finger-pointing on the climate-

change issue, regarding it as a cynical means of constraining China's economic development. That is oversensitive, but it contains a kernel of truth. For all its nuclear weapons, grand ambitions, and mobile-phone-wielding, expensively dressed business executives, China remains a poor country where hundreds of millions of people have no reliable supply of electricity. What's more, China emits a far smaller amount of greenhouse gases per capita than the rich nations whose earlier industrialization has already condemned the world to climate change. If outsiders want China to do something about global warming, they will have to pay for it. As one Western consultant with regular access to senior Chinese officials puts it, "They know very well they can hold the world for ransom . . . and whenever they can extract concessions, they will."

"The Americans say China is the straw that breaks the camel's back on greenhouse-gas emissions," says Zhou Dadi, the deputy director general of the State Planning Commission's Energy Research Institute. "But we say, 'Why don't you take some of your heavy load off the camel first?' If the camel belongs to America, fine, we'll walk. But the camel does not belong to America. China will insist on the per capita principle [of distributing emissions rights]. What else are we supposed to do? Go back to no heat in winter? Impossible."

"China is not like Africa, you know—some remote place that's never been developed. We used to be the most developed country in the world. Now, after many decades of turbulence, civil war, revolution, political instability, and other difficulties, we finally have the chance to develop the country again. And we will not lose that chance."

A Terrible Dilemma

TO get rich is glorious, in Deng Xiaoping's famous phrase. Although unrestrained growth can destroy the ecosystems on which all economies ultimately depend, the headlong pursuit of wealth is the cornerstone of modern Chinese life. The

crowning irony is that even China's top environmental officials accept that economic growth must take precedence over environmental protection for years to come. Economic growth is essential not only to maintaining political stability—avoiding a return to the chaos and stagnation seen during the Cultural Revolution—but also to financing the environmental cleanup. "The money will come from the polluter-pays principle," explains Zhang Kunmin, another deputy administrator of the National Environmental Protection Agency. "The enterprises and households must pay the true costs of a cleaner environment, so they need more wealth."

"This is the terrible dilemma of China's environmental crisis," argues a Chinese environmental expert who must remain nameless. "If economic growth stops, people will go back to the old, dirty, cheaper methods of production. Worse, there will be political instability, and that will overshadow everything; in that case no one will have time to worry about the environment. Of course, this rapid economic growth will cause additional environmental damage; some things in the environment are irreversible. That's why I think China will have to lose something—some species, some wetlands, something. We are working very hard to strengthen our environment. But, much as I regret it, you cannot save all the things you would like. You cannot stop a billion people."

It is true: China, and the rest of us, will have to "lose something" in the years ahead. But the scope of that loss matters greatly, and can be influenced. China has made great strides in the past toward the efficient use of energy. With (self-interested) help from the United States and other wealthy nations, a program to install efficient equipment and processes throughout China's energy system could reduce its energy consumption by half. Similar improvements are possible in other areas of environmental policy. But there is no time for delay or half measures. As a government scientist in Chongqing told me, "It is never too late to learn, but it is very late." ☞

Clinton softens goals for fuel use

Eases standards for Third World

By Paul Bedard
THE WASHINGTON TIMES

VANCOUVER, British Columbia — Just a week before talks begin in Japan on an international global-warming treaty, the United States yesterday shifted from its position that all developing nations should back the pact and now will simply seek the largest number of countries to sign.

On the heels of repeated demands that Third World nations "meaningfully participate" in the costly treaty to cut pollution and fuel use, Secretary of State Madeleine K. Albright singled out only wealthy developing nations for substantial participation in the drive to cut emissions from fossil-fuel use, which is thought to cause global warming.

Asked if he was changing policy going into the final wave of treaty talks in Kyoto, Japan, next Monday, President Clinton said he is "doing the best I can" to get developing nations to join the treaty.

"We believe the developing nations, as well as the developed nations, should be involved in the process," Mr. Clinton said in far less demanding language that he has used before. His comments came during a meeting with the Japanese prime minister during the first day of the two-day Asia Pacific Economic Cooperation summit here.

A senior administration official, however, said, "there is not a

change in policy — no."

The subtle but important change in negotiating strategy and language stunned treaty opponents.

"If this is the negotiating style of this administration, then let's get the next three years over with now and get a new administration in there," said Sen. Chuck Hagel, Nebraska Republican.

Mr. Hagel and Sen. Robert C. Byrd, West Virginia Democrat, won Senate approval 95-0 for a resolution rejecting any global-warming treaty that isn't signed by all developing nations.

"Unless developing nations sign on in exactly the same manner as the U.S. and adhere to the same

time frame for implementation, this treaty is dead on arrival. Secretary Albright's plan is not even close," Mr. Hagel said.

"It's not a surprise. It's a disappointment," he said of the administration's shift.

Mrs. Albright and the president said they won't press developing nations to meet the same standards of fuel-use cuts as the United States. Washington proposes reducing emissions of fuel use to 1990 levels while European nations want a far greater cut, to 15 percent below 1990 levels.

Third World nations are afraid of signing the treaty, whatever the final levels are, because it would curb their industrial development.

Only Argentina has promised to sign the treaty; major countries such as China have balked.

In his comments yesterday, Mr. Clinton said developing nations "should not be asked to adopt the same targets that we are, but that what we want to do is to find a way for the largest possible number of nations to participate in Kyoto."

National Security Adviser Samuel R. Berger said Mr. Clinton pressed the leaders of Japan, China, South Korea and Indonesia to sign the treaty but won no promises. Another aide said Mr. Clinton "was not looking for commitments or agreements."

The final treaty talks begin

Monday and are expected to continue through Dec. 10. Since many of the proposals clash, environmental experts are no longer confident that a treaty will be hammered out.

Mrs. Albright said in her speech that "the United States believes it is right for the industrialized nations to act first in the effort to control climate change. But we also believe that larger and relatively well-off developing nations must do their fair share over the long term. Otherwise, the exponential increase in emissions by the developing economies will overwhelm any reductions the industrialized world is able to achieve."

The Washington Times
TUESDAY, NOVEMBER 25, 1997

FM: DOW/Japanese

j0188

China says no obligations for developing countries<

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BEIJING, Nov. 25 -- <

China announced Tuesday it would stick to its position that developing countries should not be called on to reduce greenhouse gas emissions at the third conference of the parties to the U.N. Framework Convention On **Climate Change** in Kyoto, western Japan, next month.<

"This protocol mainly specifies the obligations on greenhouse gas emissions by developed countries after the year 2000...(it) should not provide for more obligations for developing countries," said Chinese Foreign Ministry spokesman Tang Guoqiang.<

The Dec. 1-10 conference, which is aimed at setting out legally binding emission reduction targets for developed countries, is to follow the 1992 Rio Summit on Environment and Development meeting where some 150 countries inked an initial convention.<

The prospects of the Kyoto conference have become complicated by disagreement among developed countries over the magnitude of the targets to be set, as well as the role of the developing countries, especially those that have large emissions or relatively higher levels of development.<

China, due to its dependence on coal, is the world's second largest greenhouse gas emitter after the United States, although its per capita gas emissions are dwarfed by those of developed countries.<

Tang said China would consider joint obligations if a sufficiently clear plan could be worked out at the conference.<

"As for joint fulfillment, China believes that, based on the convention, the emissions policy and measures should be limited to the developed countries. However, this is up to the outcome of the multilateral consultations at the Kyoto conference," he said.<

So-called greenhouse gases from the burning of fossil fuels have greatly increased as the world has industrialized over the last 100 years, contributing to a rise in global temperatures.<

Some scientists fear that unabated burning of coal and petroleum products could lead to disastrous **climate changes** resulting in rising sea levels and an increased frequency of drought, flooding and storms

JAPN 11/25/97 04:51:00

FM: AP/Bloomberg

f1755

^BC-APEC-ENVIRONMENT<

Chances Dim for Significant Agreement to Curb **Climate Change**
Vancouver, Nov. 25 (Bloomberg) -- A compromise by U.S. President Bill Clinton with Asian leaders over how to attack **global warming** will make it much harder for negotiators to reach a significant agreement to slash greenhouse gas emissions.

The U.S. and another roughly 160 countries will negotiate next month in Kyoto, Japan, over how deeply to slash emissions of heat-trapping gases. U.S. businesses like Ford Motor Co., General Motors Corp. and Chrysler Corp., want developing nations to share the costs. They say countries like China, on track to overtake the U.S. as the world's No. 1 producer of greenhouse gases, should be part of any treaty. Developing countries say polluting countries like the U.S. should bear the lion's share.

A final draft of a statement by 18 leaders at the Asia-Pacific Economic Forum gathered here papers over the dispute. It calls broadly for "cooperative efforts by the international community, in accordance with the principle of common but differentiated responsibilities."

With no strong push from top leaders, though, negotiators in Kyoto likely will produce only "some sort of fig-leaf agreement," said Dan Esty, director of the Yale Center for Environmental Law and Policy.

"Without the support from developing nations at APEC, there's less than a 50-50 chance of any meaningful agreement at Kyoto," Esty, an Environmental Protection Agency deputy chief of staff in former President George Bush's administration, said in a Bloomberg Forum interview yesterday.

Clinton's top international economist, Dan Tarullo, also played down the chances for a major treaty. At the APEC summit, Tarullo said, Clinton was simply making a case about the importance of getting countries to participate "if a Kyoto treaty is agreed upon."

Fear of Cooling Growth

Developing countries say new environmental rules will hamper their growth. Clinton offered reassurances during one-on-one and group meetings with Asian leaders this week.

"The United States and other industrialized nations have no interest in trying to slow or stop growth in developing countries by trying to bring them into the Kyoto system," Tarullo said.

The U.S. has tried to bridge the gap between developing and industrialized nations by advocating a three track system. The idea is that industrialized nations, well-off developing nations and the lesser developed nations could all sign onto a Kyoto pact vowing to cut differing levels of emissions.

"The United States believes it is right for the industrialized nations to act first in the effort to control **climate change**," Secretary of State Madeleine Albright said today. "But we also believe that larger and relatively well-off developing nations must do their fair share over the long term."

Esty said Albright is trying to woo nations like Argentina, which agreed to support an emissions treaty last month. "We must expect that developing nations won't commit to something as aggressive as what the industrialized nations do," he said. "This will be useful in bridging the gap between them. But it won't be enough to make a big difference in Kyoto."

Lukewarm Responses

In August, Clinton proposed cutting emissions back to 1990 levels by 2008. His plan would soften the blow to businesses by allowing them to get credits for cutting pollution; they could use these credits to offset pollution elsewhere.

European officials said the U.S. proposal is too weak. They're pushing a plan that cuts emissions 15 percent below 1990 levels by 2010, with varying targets for European Union countries.

Even Canada, an ally the U.S. could usually count on in international forums, sidestepped supporting the U.S. on **global warming**. Sunday, Prime Minister Jean Chretien said only that he and Clinton agreed developing nations must play a part in any agreement.

"We have not decided what will be the result of Kyoto," Chretien said. "We have agreed that it is very important to have an agreement in Kyoto. The president and I, I guess, would agree that it is not only a problem of industrialized nations, it's a global problem."

--Dina Temple-Raston in Vancouver with the president through the APEC newsroom (604) 333-6383/rdm/tre

Story illustration: To graph trading in U.S. sulfur dioxide emission allowances: EMIT <Go>

To see top energy stories: ETOP <Go>

Company News: News by Category: SD US <Equity> Southern Co. NI NRG Energy

PPL US <Equity> PP&L NI ENV Environment

DUK US <Equity> Duke NI EXE Clinton Admin.

ENE US <Equity> Enron NI CNG Congress

TWX US <Equity> Time Warner NI OIL Oil

CN, BQ, DES, REQ NI STD State Dept NI UN United Nations

NI WEATHER Weather

Industry News: Regional News: NI GAS Natural Gas NI US United States

NI COA Coal NI EU European Union NI AUT Autos NI JAPAN Japan NI UTI

Utilities NI CHINA China

NI ELC Electricity

People in the News: WHO TIMOTHY WIRTH WHO TED TURNER WHO MADELEINE

ALBRIGHT WHO STUART EIZENSTAT WHO DAN TARULLO

For more on the State Department and the United Nations: TNI For a special report on APEC, see APEC <Go>

To hear the Forum with Esty, type BFM <Go>

-0- (BN) Nov/25/ 97 12:23 EOS (BN) Nov/25/97 12:23

BB-F 11/25/97 12:22:00

FM: Reuters

a1164

^BC-ENVIRONMENT-GREENPEACE

^Greenpeace starts protest at Esso London office

LONDON, Nov 25 (Reuters) - The environmental pressure group Greenpeace on Tuesday launched a protest outside the London offices of Esso Petroleum over the company's stand on **global warming** ahead of a summit in Kyoto, Japan on **climate change**.

"Greenpeace has begun a 12 day protest outside Esso's headquarters...to expose the company's attempts to derail the international climate negotiations," the group said in a statement.

Around 20 protesters were outside Esso's central London offices handing out leaflets to staff and pedestrians. About the same number were outside Esso's operational headquarters in Leatherhead, southeast England, said campaigner Robbie Kelman.

Kelman said that the protest would continue until the completion of the Heads of Delegation meeting at the Kyoto summit on December 10.

The aim of the U.N.-sponsored summit is to reach a binding inter-governmental agreement on the reduction of global fossil fuel emissions.

Greenpeace said it was targeting Esso, a unit of U.S. oil giant Exxon Corp, because unlike its rivals Royal Dutch Shell Group and British Petroleum, the company won't admit that **climate change** caused by the burning of fossil fuels was a real problem that needed to be tackled.

"Esso publicly cast doubt on **climate change** science and mounted a massive disinformation campaign to try and scupper the talks," Greenpeace said.

A spokeswoman for Esso declined to comment directly on the Greenpeace allegations, but released a statement on **climate change**.

"Scientific understanding of Earth's climate continues to improve, but it is not yet good enough to justify the drastic restrictions on energy use which are being advocated," the statement said.

RB-- 11/25/97 10:33:00

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BELGIUM: EU Condemns US Climate Stance (Take 2 of 2--190nov25)

//above 1990 level. BR2511142597

[FBIS Transcribed Text] The EU is not against emission trading, provided that it supports strong targets. What we have to avoid, in particular, is a trading regime that would allow the use of banked emission reductions accumulated between 1990 and the period for which commitments apply -- so called "hot air" emissions trading. This is not acceptable.

Our calculations show that if all the banked tons from Russia and other former socialist countries were used, they would be able to deliver a 15 percent cut without any action. In other words, if we sign up to the US plan, there will be no real emission reduction and no benefit for the climate.

These negotiations certainly give us a new outlook on US Russia relations. In ten years you have gone from cold war to the US riding on a Russian hot air balloon. I am determined to be the one who bursts that particular balloon. If Kyoto is to achieve serious results there can be no soft rides.

The EU has proposed that there should be a target set for a reduction of at least 7.5 percent by 2005. We also propose a reduction of 15 percent by 2010. The European Union has a position and we stick to it because it is the right position.

The way to deliver our commitment is through a number of policy proposals on energy efficiency, co-generation and renewables. We already have proposals on the table or in the pipeline that will help to bring solutions to reducing emissions in transport, in the electricity sector and in the domestic sector.

For example, we are currently exploring with the European automobile industry how to achieve an effective and transparent agreement on improving fuel consumption and thereby reducing CO2 emissions. Industry would commit itself to reducing the CO2 emissions from cars in the period up to 2010. Calculations by the European car industry show that a specific reduction of 20 percent in emissions can be achieved on the basis of existing technology at a cost of one third of the price of the gasoline saved over a lifetime of the vehicle. A further reduction with the so-called five litre car is certainly technically and economically feasible.

The studies available show that there is even more potential

in the US to produce more efficient cars, cleaner electricity and promote renewables. The market is unlikely to provide a solution on its own, since it is awash with plentiful and inexpensive fossil fuels. Active support of government and industry is vital. This is where you come in!

I cannot emphasise enough the vital interest business and industry have in tackling this problem. The survival of many species and the lives of tens, if not hundreds, of millions of people living in low-lying areas is in danger. Europe and USA will also be affected. Our industry as well. In this, as in all areas of sustainable development, we need your cooperation. And we need your commitment. I hope that companies based here in Europe which have the opportunity to influence their parent companies in the US

will persuade them about our concerns and our determination to tackle the problems.

Once the industrialised countries have moved decisively in this direction, it is likely that others will adopt the same standards to remain competitive. This is already happening in some sectors. For these reasons, I believe, the concerns of industry lack basic economic plausibility: well-designed **climate change** policies will NOT shift industry to developing countries! Neither will they cause large scale job losses or flights of capital. On the contrary they provide opportunities for the expansion of business into new and more sophisticated technologies if we reduce our reliance on fossil fuels.

In conclusion what am I looking for in Kyoto are:

Significant and legally-binding emission reduction objectives that set the world on the right track.

A solid agreement that produces results. Talking will do nothing for the planet and be a major setback for international environmental co-operation.

While I recognise that each industrialised country has specific circumstances, I believe that the only possibility for reaching a solution at Kyoto is to go for legally binding agreement with ambitious reduction targets for all industrialised countries. The EU is ready to consider flexibility measures such as emissions trading and joint implementation. But only if there are strong commitments on targets and only if it is related to domestic efforts.

There is not one single issue that can not be solved if there is the necessary political will to do so.

At Kyoto it would be difficult to expect the developing countries to make comparable reduction or limitation commitments. It is interesting to note that the G77 and China support the EU proposal for emission reduction. If we can obtain a worthwhile agreement, I am confident that they, in their own best interest, will join the process.

As we approach Christmas, the best present the world could receive would be a credible and substantive result in Kyoto. All my efforts in the coming week will be towards this goal. Thank you for your attention.

endall)

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SENSITIVE

E.O. 12958: N/A
TAGS: SENV, PREL, KSCA
SUBJECT: **CLIMATE CHANGE** -- KEY DEVELOPING COUNTRY VOLUNTARY
GREENHOUSE GAS EMISSIONS CONTROLS UNDER ARTICLE 10

REF: (A)STATE 218865 (NOTAL), (B)SEOUL 6827, (C)SINGAPORE
5367, (D)STATE 220757 (NOTAL), (E)STATE 218877 (NOTAL),
(F) SEOUL 6893

1. (U) THE FOLLOWING ACTION MESSAGE (SEE PARA. 11)
CONTAINS SENSITIVE BUT UNCLASSIFIED SECTIONS, AS
IDENTIFIED.
2. (SBU) THIS MESSAGE IS BEING SENT TO KEY DEVELOPING
COUNTRIES WHOSE PER CAPITA INCOME IS WITHIN THE RANGE OF
COUNTRIES ALREADY INCLUDED IN ANNEX I MEMBERS (E.G., SOME
DEVELOPED AND ECONOMY IN TRANSITION COUNTRIES) UNDER THE UN
FRAMEWORK CONVENTION ON **CLIMATE CHANGE** (ACCORDING TO 1996
DATA OF THE WORLD BANK AND WORLD RESOURCES INSTITUTE -
WRI).
3. (SBU) WE ARE NOW IN THE FINAL COUNTDOWN TO THE THIRD
CONFERENCE OF THE PARTIES TO THE UN FRAMEWORK CONVENTION ON
CLIMATE CHANGE MEETING WHICH WILL BE HELD IN KYOTO, JAPAN,

DECEMBER 1-10. IN THE U.S. VIEW, SEVERAL ELEMENTS WILL BE CRITICAL TO A SUCCESSFUL OUTCOME AT THIS IMPORTANT MEETING, INCLUDING TARGETS AND TIMETABLES, JOINT IMPLEMENTATION WITH CREDIT, INTERNATIONAL EMISSIONS TRADING AND, IN PARTICULAR, DEVELOPING COUNTRY PARTICIPATION. OUR AIMS FOR A SUCCESSFUL OUTCOME AT KYOTO CONTINUE TO BE ADDRESSED AT THE HIGHEST LEVEL IN THE USG. WE ALSO WANT OUR AMBASSADORS AND OTHER DIPLOMATIC REPRESENTATIVES TO CONTINUE TO RAISE THIS ISSUE IN THEIR MEETINGS WITH INTERLOCUTORS.

4. (SBU) WE BELIEVE IT IS NECESSARY TO GET KEY DEVELOPING COUNTRIES, PARTICULARLY THOSE THAT ENJOY PER CAPITA INCOME LEVELS THAT ARE RELATIVELY HIGH COMPARED TO OTHER DEVELOPING COUNTRIES, TO TAKE STEPS NEEDED TO MITIGATE GREENHOUSE GAS EMISSIONS. AMBASSADORS ARE ASKED TO DELIVER SOONEST TALKING POINTS BELOW ON EFFORTS THAT WE BELIEVE ACTION ADDRESSEES SHOULD UNDERTAKE IN KYOTO WITH RESPECT TO "VOLUNTARILY" ACCEPTING BINDING EMISSION REDUCTIONS.

5. (SBU) ACTION POSTS ARE IN COUNTRIES THAT ENJOY THE HIGHEST PER CAPITA INCOMES AMONG DEVELOPING COUNTRIES. INDEED, THEIR RESPECTIVE PER CAPITA INCOMES ARE IN THE RANGE OF SEVERAL OF THE ANNEX I COUNTRIES (INDUSTRIALIZED AND ECONOMY IN TRANSITION COUNTRIES) LISTED IN THE **CLIMATE CHANGE** TREATY. RECOGNIZING THAT THERE IS A NEED FOR CONTINUED ECONOMIC GROWTH OF THESE COUNTRIES IN AN ENVIRONMENTALLY SOUND AND SUSTAINABLE MANNER, WE BELIEVE THAT THEY SHOULD MAKE EFFORTS TO CONSTRAIN THEIR GHG EMISSIONS.

6. (SBU) A CURRENT DRAFT PROPOSAL FOR THE KYOTO NEGOTIATIONS INCLUDES A PROVISION ALLOWING FOR DEVELOPING COUNTRIES TO VOLUNTARILY TAKE ON COMMITMENTS ("OPT-IN") TO REDUCE THEIR GHG EMISSIONS. SUCH COMMITMENTS COULD BE STATED AS EMISSION GROWTH TARGETS, BUT NOT SOLELY AS ENERGY EFFICIENCY TARGETS (ARTICLE 10 IN THE DRAFT TEXT--WHICH THE G-77 HAS FORMALLY OPPOSED AS THEY ASSERT THAT IT IMPOSES NEW COMMITMENTS FOR DEVELOPING COUNTRIES). WE FEEL STRONGLY THAT IT IS IN THE INTERESTS OF ACTION POST COUNTRIES TO GET OUT IN FRONT TO SUPPORT INCLUSION OF ARTICLE 10 AS A CRUCIAL ELEMENT IN THE OUTCOMES FROM KYOTO. OUR RATIONALE IS THAT THESE COUNTRIES, AMONG OTHER THINGS, HAVE THE WAYS AND MEANS TO TAKE SUCH MEASURES. EQUALLY IMPORTANT, WE BELIEVE THAT THEIR SUPPORT FOR THE SUCCESSFUL INCLUSION OF ARTICLE 10 WILL AFFORD BOTH A UNIQUE EARLY

OPPORTUNITY TO PARTICIPATE IN ANY INTERNATIONAL GHG EMISSIONS TRADING REGIME THAT MAY BE ESTABLISHED OVER THE COURSE OF THE NEXT FEW YEARS.

7. (SBU) IN ADDITION, WE BELIEVE THAT THESE COUNTRIES SHOULD MAKE ANNOUNCEMENTS AT KYOTO IN SUPPORT OF ARTICLE 10 AND STATE THEIR INTENTION TO UNDERTAKE COMMITMENTS UNDER IT ON MEASURES (ACTION PLANS, POLICIES, ETC.) THEY PLAN TO

TAKE OVER THE NEXT FEW YEARS TO LIMIT OR REDUCE THEIR GHG EMISSIONS. WE WOULD BE PLEASED TO WORK WITH THESE COUNTRIES TO DEVELOP THESE MEASURES IN THE FOLLOW-UP TO KYOTO.

8. (SBU) FOR SEOUL AND SINGAPORE ONLY: DEPARTMENT APPRECIATES THE EFFORTS OF EMBASSY SEOUL AND EMBASSY SINGAPORE IN DELIVERING THE U.S. POINTS ON THESE ISSUES AS PROVIDED IN THE PREVIOUS REF A DEMARCHE. YOU ARE AGAIN REQUESTED TO INTERCEDE WITH YOUR HOST GOVERNMENT INTERLOCUTORS AT THE HIGHEST LEVELS IN ORDER TO SEEK A MORE FAVORABLE RESPONSE. DEPARTMENT APPRECIATES EMBASSY SEOUL'S EFFORTS REPORTED IN REF B IN GETTING THE POINTS OUTLINED IN REF A TO ROKG REPS. PLEASE KEEP ON TOP OF THE ROKG TO ENSURE THAT THIS IMPORTANT ISSUE IS ONE THAT THE ROKG CONES PREPARED TO ADDRESS IN KYOTO. DEPARTMENT ALSO APPRECIATES EMBASSY SINGAPORE'S EFFORTS TO RAISE THIS ISSUE WITH GOS INTERLOCUTORS (REF C). HOWEVER, WE URGE THAT THE AMBASSADOR OR DCM MEET WITH OTHER SENIOR-LEVEL GOS INTERLOCUTORS SOONEST TO PRESS THIS ISSUE, GIVEN ITS IMPORTANCE TO USG INTERESTS AND DESIRED OUTCOMES AT KYOTO.

9. (SBU) FOR CARACAS, BUENOS AIRES, SANTIAGO, SAN JOSE ONLY: IF POSSIBLE, INCLUDE THIS DEMARCHE WHEN MAKING THE DEMARCHE REQUESTED IN REF D. OTHERWISE, IT CAN BE DELIVERED SEPARATELY. IN ADDITION FOR BUENOS AIRES, PLEASE USE THE POINTS BELOW AS A FOLLOW-UP TO THE POSITIVE REMARKS ON DEVELOPING COUNTRY PARTICIPATION MADE BY PRESIDENT MENEM DURING THE PRESIDENT'S VISIT TO ARGENTINA IN OCTOBER.

10. (SBU) FOR PORT CE SPAIN AND PORT LOUIS ONLY: AS HIGH INCOME MEMBERS OF THE ALLIANCE OF SMALL ISLAND STATES (AOSIS), POSTS SHOULD UNDERSCORE THE SYMBOLIC IMPORTANCE WHICH THESE COUNTRIES SUPPORT WOULD GIVE TO OUR MUTUAL EFFORT TO FIND A GLOBAL MEANS TO ADDRESS THE GLOBAL **CLIMATE CHANGE** CHALLENGE. POSTS MAY NOTE THAT, AT PRESENT, THESE COUNTRIES HAVE OFFERED NO CONCRETE PROPOSALS TO TAKE ACTION

ON THEIR OWN, IN SPITE OF STRONG INSISTENCE ON ANNEX I PARTY COMMITMENTS.

11. (SBU) BELOW ARE TALKING POINTS FOR THE AMBASSADORS/CHARGES TO DRAW ON WITH THEIR KEY HOST GOVERNMENT INTERLOCUTORS.

BEGIN GENERAL TALKING POINTS:

-- WE APPRECIATE THE OPPORTUNITY TO MEET WITH YOU TO DISCUSS ISSUES RELATED TO THE **CLIMATE CHANGE** NEGOTIATIONS THAT ARE TO BE CONDUCTED IN KYOTO IN EARLY DECEMBER. THIS ISSUE IS OF CONCERN AT THE HIGHEST LEVELS IN THE U.S. GOVERNMENT AND WE ARE COMMITTED TO MAKING THIS IMPORTANT CONFERENCE A SUCCESS, IN COOPERATION WITH YOUR COUNTRY AND OTHERS.

-- IN THIS RESPECT, WE SEEK YOUR SUPPORT ON AN ISSUE THAT WE BELIEVE TO BE AN ESSENTIAL INGREDIENT FOR THE NEGOTIATIONS, NAMELY, THE MEANINGFUL PARTICIPATION OF A DEVELOPING COUNTRY, LIKE YOURS, IN LIMITING OR REDUCING GROWTH IN GREENHOUSE GAS EMISSIONS.

-- IT IS THE U.S. VIEW THAT THOSE COUNTRIES THAT CONTRIBUTE TO **GLOBAL WARMING**, AND/OR THAT HAVE THE WHEREWITHAL TO ACT, TAKE MEANINGFUL STEPS TOWARD ADDRESSING **CLIMATE CHANGE**.

-- YOUR COUNTRY ENJOYS ONE OF THE HIGHEST PER CAPITA INCOMES AMONG DEVELOPING COUNTRIES, EVEN EXCEEDING THAT OF SEVERAL OF THE ANNEX I COUNTRIES (INDUSTRIALIZED COUNTRIES). RECOGNIZING YOUR NEED FOR CONTINUED ECONOMIC GROWTH SHOULD BE, LIKE ALL OTHER COUNTRIES, CONDUCTED IN AN ENVIRONMENTALLY SOUND AND SUSTAINABLE MANNER, WE BELIEVE THAT YOUR COUNTRY SHOULD MAKE ITS UTMOST EFFORTS TO CONSTRAIN GHG EMISSIONS.

-- AS YOU MAY BE AWARE, A CURRENT DRAFT PROPOSAL FOR THE KYOTO NEGOTIATIONS INCLUDES ARTICLE 10, WHICH PROVIDES FOR DEVELOPING COUNTRIES TO VOLUNTARILY TAKE ON COMMITMENTS ("OPT-IN") TO LIMIT OR REDUCE THEIR GHG EMISSIONS. COMMITMENTS UNDER THE ARTICLE COULD BE TO EMISSIONS GROWTH TARGETS. WE FEEL STRONGLY THAT IT IS IN YOUR INTERESTS TO GET OUT IN FRONT TO SUPPORT INCLUSION OF ARTICLE 10 AS A CRUCIAL ELEMENT IN THE KYOTO AGREEMENT.

-- WE BELIEVE, RELATIVE TO OTHER DEVELOPING COUNTRIES AND SEVERAL DEVELOPED ONES, YOUR COUNTRY HAS THE WAYS AND MEANS TO ACT TO LIMIT OR REDUCE ITS PROJECTED EMISSIONS. EQUALLY IMPORTANT, WE BELIEVE THAT YOUR SUPPORT FOR THE SUCCESSFUL INCLUSION OF ARTICLE 10 WILL POSITION YOUR COUNTRY TO TAKE EARLY ADVANTAGE OF OPPORTUNITIES TO PARTICIPATE IN ANY INTERNATIONAL GHG EMISSIONS TRADING REGIME THAT MAY BE ESTABLISHED OVER THE COURSE OF THE NEXT FEW YEARS.

-- IN ADDITION, YOUR LEADERSHIP WOULD BE WELCOMED IF YOUR COUNTRY WOULD ADDITIONALLY MAKE AN ANNOUNCEMENT AT THE KYOTO CONFERENCE ON MEASURES (ACTION PLANS, POLICIES, ETC.) THAT IT INTENDS TO TAKE OVER THE NEXT FEW YEARS TO LIMIT OR REDUCE ITS GHG EMISSIONS.

-- WE WOULD BE PLEASED TO WORK WITH YOU TO DEVELOP THESE MEASURES IN THE FOLLOW-UP TO KYOTO.

END TALKING POINTS.

12. (U) PLEASE SLUG REPLIES TO OES ACTING A/S MELINDA KIMBLE.
ALBRIGHT

DIST:

SIT: ANTHOLIS SANDALOW SIT: NSC

PREC: ROUTINE CLASS: UNCLASSIFIED SSN: 0903 DOCID: M3041060

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FM: AMEMBASSY BANGKOK
TO: RUEHC/SECSTATE WASHDC 5030

INFO: RUEHNR/AMEMBASSY NAIROBI 0110
RUCNDT/USMISSION USUN NEW YORK 4034

UNCLAS BANGKOK 020903

NAIROBI FOR UNEP PERMREP

STATE FOR OES EILEEN KANE

E.O. 12958: N/A
TAGS: AORC, SENV, UNEP, KUNR, TH
SUBJECT: UNEP REFORM: THAILAND'S VIEWS

REF: STATE 220946

1. ECON COUNSELOR AND REGIONAL ENVIRONMENTAL AFFAIRS OFFICER DELIVERED REFTEL WHITE PAPER TO MINISTRY OF SCIENCE AND TECHNOLOGY (MOSTE) PERMANENT SECRETARY KASEM SNIDVONGS ON NOVEMBER 24. MR. KASEM SAID THAT, BECAUSE THAILAND IS NOT A MEMBER OF THE HIGH LEVEL COMMITTEE (HLC) -- AND BECAUSE OF BUDGET PROBLEM-INDUCED TRAVEL RESTRICTIONS) -- THE RTG PROBABLY WILL ONLY SEND SOMEONE FROM ITS EMBASSY IN NAIROBI TO ATTEND THE FEBRUARY HLC MEETING.

2. MR. KASEM SAID THE RTG SHARES OUR CONCERN ABOUT UNEP'S EFFECTIVENESS. HE HAD CALLED IN EARLIER MEETINGS FOR MORE DECENTRALIZATION OF THE AGENCY, INCLUDING STRENGTHENING ITS REGIONAL SUB-OFFICES (NOTE: ONE OF WHICH IS LOCATED IN BANGKOK) AND FOCUSING ON REGIONAL AND SUB-REGIONAL ISSUES (E.G., THE HAZE IN SOUTHEAST ASIA). UNEP WILL BE MORE IMPORTANT FOR DEVELOPING COUNTRIES IN THE FUTURE, HE AVERRED. MANY OF THE ISSUES WITH WHICH IT IS NOW PREOCCUPIED -- **CLIMATE CHANGE**, MONTREAL PROTOCOL, ETC. -- ARE ONES RAISED BY AND/OR OF CHIEF INTEREST TO THE DEVELOPED COUNTRIES. AS THOSE ISSUES ARE ADDRESSED, MORE INTEREST SHOULD BE FOCUSED ON ISSUES OF CONCERN TO THE DEVELOPING WORLD, HE MAINTAINED.

3. KASEM ALSO ASKED ABOUT THE STATUS OF CANDIDATES FOR NEW UNEP EXECUTIVE DIRECTOR. ECON COUNSELOR TOLD HIM OF THE UN SECRETARY GENERAL'S NOMINATION OF GERMAN FEDERAL MINISTER TOEPFER AND SAID THE USG FULLY SUPPORTS THE NOMINATION.

BOYCE

DIST:

SIT: BADER CLARKER GAGNON HAWLEY JORDAN KRISTOFF NORRIS PRITCHARD WECHSLER

SIT: NSC