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Environmental security has become a major foreign policy issue in many western countries because there is a recognition now that there are deep instabilities in poor countries around the world. Instabilities are often caused by environmental stress--water scarcity, land scarcity, the depletion of forests--that can destabilize these societies, that can make them more prone to civil violence even to revolutions. They can cause large-scale migrations with people moving in huge numbers across borders and perhaps coming to rich countries that can cause humanitarian crises of various kinds that will involve the aid agencies and the military agencies of rich countries. So in many ways we're cheek by jowl on this planet now; we're packed very closely together, and if there is a crisis or a stress on one side of the planet, it tends to effect people on the other side of the planet, and that's why many of our foreign policy agencies are now concerned about the environmental stress that's happening in poor countries.

One of the things that makes this situation extremely difficult for many poor countries is they've gone through a very rapid period of population growth in recent decades, what experts call a "demographic explosion." This has contributed to what the experts call a "youth bulge," a large number of young people within these societies. Frequently, you can have over 50 percent of the society under 15 or 20 years of age, and this youth bulge can be destabilizing because especially young, unemployed, urbanized men are very, very volatile. It's a volatile social group, and they are susceptible to radical political movements, and they can become involved in various violent activities within societies. And so there's quite a strong relationship between rapid population growth in recent decades and political instabilities in societies today.

Bangladesh is a very interesting case for a variety of reasons. You have a society that's under, in many ways, extreme ecological stress. It's a country with a huge population, 130 to 140 million people now, crammed together essentially in a river delta, the delta at the Ganges and the Bramaputra Rivers. And it's a vulnerable area, vulnerable to cyclones and flooding, and there's no new agricultural land to open up. As a result, as the population grows, each family, each agricultural family because they depend fundamentally on agriculture, has less and less land. Land gets divided with each successive generation. As the land is handed from one generation to another, it gets divided into smaller and smaller parcels, and people, as a result, become poorer. There are also severe water scarcity problems throughout Bangladesh. Despite the fact that there are two major rivers running through the country, it turns out that much of the country is very short of water much of the year. These two stresses--land scarcity and water scarcity--together cause large numbers of people to leave farms, to either move into the big cities in Bangladesh or to move out of the country entirely to India, where often they can become involved in violence in India.

One of the things you find is that when people move in large numbers from the countryside into urban areas, frequently the cities aren't well adapted to receive these

people. There isn't the infrastructure of water systems, of electrical grids, of housing stock, of schools and hospitals, and so you find that the newly arrived set up large squatter settlements in what experts call peri-urban areas, basically in a big ring around the central core of a city. They tend to occupy all the public land that's available, any parkland or the margins of roads, the margins of railways. And this puts tremendous stress on the government of a city, because the government is under tremendous pressure to provide services to these groups. To the extent that the services aren't provided, the squatter settlements can become areas of instability, zones of instability, within an urban area. They also are easily exploited by people who control urban resources. These squatter settlements need large amounts of water for example, and you'll find that often rich groups and powerful groups within the cities who control the water resources will use their power to basically extract huge profits from the squatter settlements by selling water to the squatter settlements. This is an exploitable group, and it's also a source of great instability in many poor countries around the world.

It's very easy for the billion or so people in rich countries to forget exactly what life is like for the 3 to 4 billion very poor people on this planet. We have to remember that 3 billion on this planet survive on less than \$2.00 a day; somewhere around 1 to 1 1/2 billion survive on less than a dollar a day. Half the world's population has never made a phone call--very fundamental things that we take for granted in our daily lives such as the ability to defecate in privacy, to have a little bit of space that we can call our own, a few possessions of some kind. These things are often not available to large portions of the world's population.

One of the things that's creating tremendous instability within societies and around the world is the differences, the inequalities that are opening up between the rich and the poor and between the powerful and weak groups within our societies.

One of the ways that we've seen these problems most directly in our lives is with the situation in Haiti, where we've found a chronic problem of ecological collapse in that country, especially the loss of fuel wood and soil in that country. We've seen a situation where the forests have been removed from the land, and the soil has washed off the slopes of the island down into the sea. And so a lot of the farmers don't have sufficient land to farm anymore, and they've had to move into the cities where they're desperate poor.

We've also found a critical problem of fuel wood shortage in that country, and the remaining fuel wood and charcoal is controlled by powerful groups that exploit the market to extract huge profits. So as people move from the countryside into the cities and become very poor in the cities, they become a source of instability in that country. They also, of course, want to improve their lives and they often try to leave. They leave in boats, and we saw many years ago, about 10 years ago, major migrations of Haitians from Haiti to the United States. Now, this is prevented at this point by a perpetual vigil of American vessels that picks up Haitians who are trying to flee their country. So we've, in a sense, sanitized, or cauterized the situation to prevent it from affecting us anymore, but that doesn't mean that the crisis in Haiti has been resolved. The bottom line with Haiti

is that country is never going to be stable, politically and economically stable, until the underlying ecological and environmental pressures are addressed.

One of the places in the world where we need to be focusing much of our attention is South Asia. We've tended to spend a lot of time looking at Asia--East Asia, especially China--and we're very interested in economic and population pressures and resource pressures within China. But in South Asia, and these are the countries of Bangladesh, Pakistan, Sri Lanka, Nepal, and especially India, the convergence of resource pressures and population pressures is extraordinary. This is a part of the world where you have one and a half billion people packed together in a very small space where the resources are now largely exhausted. If we're going to be looking for instability in the world in the future as a result of environmental stress, South Asia is one of the first places we should be looking.

There's reason to think that maybe some good things can come out of the September 11th attack. After all, it has brought a number of diverse countries together around the world to focus on one problem. There is a recognition among many countries now and many leaders of countries, in fact across the world, that international terrorism is something that harms us all, that it strikes in some sense at the roots of our civilization--human civilization. Now, maybe we can take that nascent collaboration, the cooperation that's developing around dealing with this international problem and start to use it in our areas where we desperately need cooperation, such as on global climate change or on global criminal groups that need to be controlled. One of the things that we need to cooperate on desperately at the moment is international and environmental issues, especially those dealing with regional environmental problems such as water scarcity and land scarcity and loss of forest that destabilize societies and undermine their political and economic viability over time.

Now, we might be able to take the template, you might say, of cooperation that develops around the September 11th attacks and use that as a basis, as a foundation for cooperation in other areas including dealing with environmental problems in poor countries.

At the moment I don't think we're seeing clear examples, or clear evidence, that climate change is having a dramatic effect on societies, their economic development and their political stability around the world. It's not clear that the signal of climate change, of human induced climate change, has emerged from the noise of general climate variability--but it will. We're going to see within the next one to two to three decades significant climate change on this planet, and the societies that are going to be worst effected will be the poorest, the ones that are least able to adapt or adjust to the stresses of climate change.

Now, the key thing about climate change is that this new stress, which will include not just higher temperatures but changes in the rainfall patterns, changes in storm tracks and the incidence of major storms, that this climate change stress will be added on top of all the other stresses societies already face with their very large population, their already degraded water resources, their already degraded land resources and forest resources. The real problem is that we're going to have a whole bunch of things happening at the same

time and that some societies simply won't be able to manage simultaneous stresses that are converging on them all together.

I think the United States has a great deal to bring to the world. One of marvelous things about the United States is its ability to identify problems, say "How are we going to fix them?" and apply human ingenuity to addressing the problems effectively, the kind of can-do approach to dealing with the challenges we face. It's very important that we don't just throw up our hands and say, "There is nothing we can do about this," and become fatalistic in response to these immense challenges we face. The United States is well positioned in terms of its wealth and power to make a difference in the world. In fact, the United States is probably the critical actor. The decisions that are made in the United States to respond to some of these critical challenges around the world, over the next 10 or 20 years, may determine ultimately much of the fate of humanity.

We have to recognize that the rich countries on this planet have a significant responsibility to the poor countries and the people who are miserable on this planet. And to the extent that we don't deal with those gaps that are developing to rich and poor, we are going to suffer. Our societies are going to be less stable and less safe as a result.

The first thing we have to do is to recognize the magnitude of the challenges we face, and these aren't challenges that are faced just by poor countries, they're challenges that are faced by all of humanity--climate change, water scarcity, land degradation, loss of energy supplies around the world because of the depletion of forests. These are problems that are facing humanity as a whole. And the second thing we have to realize is that we are in this leaky lifeboat together, and to the extent that we don't address these problems together, we are not going to be able to solve them effectively.

The developed countries, the rich countries in this world, have a tremendous amount of expertise and wealth that they can bring to bear on many of these problems, but we have to do it in a way that respects the cultures and societies and respects the institutions of the poor societies that we're working with. This has to be fundamentally a collaborative exercise. It has to be a cooperative relationship between rich and poor countries to solve problems that are effecting us and can, if not addressed properly, seriously degrade the quality of life for our children and our grandchildren.