

Ms. Rosalia Arteaga Serrano

Good morning to everybody, I am very happy to be here. Thank you for inviting me to IIASA to share this anniversary with you and all the people invited to be here. I am happy also to be the first one to speak this morning—maybe to warm you up a little bit with thoughts of the Amazon. That is the issue that I am going to talk about because until July this year I was the General Secretary of the Amazon Corporation Treaty Organization and I had to deal with, for instance, the eight countries of the Amazon working not only on how to preserve it, but also how to improve the quality of life of the people that live in the Amazon region. And I'm going to speak like a Latin American woman, someone coming from the middle of the world, from Ecuador, of course, Latin America. And I will start speaking by quoting one of my favorite writers Ernesto Sabato, an Argentinian that studied physics, worked in Paris; then Paris changed him and he started to be one of the most extraordinary writers. He says in one of his last books "The Resistance," "La Resistencia," published after he was 90: "Only the virtues of human spirit can save us from the earthquake that threatens the human condition."

That is the starting point for my reflections, for my thoughts about shared responsibility. Most of you maybe are familiar with some of the things that I am going to say but it's good to talk about the meaning of the Amazon region for the world. Eight countries share the Amazon region. France with French Guyana, has only a small piece of the Amazon. Six other countries are mega bio-diverse. When we talk about the Amazon biome, we are talking about 7.5 million square kilometers, but when we are talking about the basin we have to talk about 6.5 square kilometers. Some of the data that I have here are provided for my team working in Brazil in the Amazon Corporation Treaty Organization and also by scientists of the joint research center in Ispiran [?]. 56% of the tropical rainforest around the world is in the Amazon forest. And we have data about the species of plants and butterflies and bugs and freshwater fish, amphibian species, types of reptiles, birds, mammal species. It is very impressive when you think about that, but also you have to realize that sometimes Amazon is considered as an empty space. People talk about the Amazon as if it is an empty space, but we have also 30 million people living on it. We don't have the exact numbers. There is work in process about population, led by the University of Para in Belem, Brazil, but we don't have exact numbers.

What's the importance of the region? It stores, people say, scientists say, about 20% of total fresh water of the world. When you compare the Amazon River with the other rivers in the world, the flow into the ocean is more than if you put all together the nine largest rivers on the world. Maybe when you compare and you see, for example, the Black Forest with the Amazon Jungle—because sometimes it's hard to think about comparisons— but if you compare the Black forest with the Amazon Jungle, maybe you can think in terms of the Black Forest being the garden of your house. Some scientists say that in one hectare of the Amazon, you have more biodiversity than in the whole Europe. We are familiar with talking about the importance of how to preserve natural resources, now especially with climate change and what's happening in the world. And we have to say that in the past we used to talk about the Amazon as being the lung of the universe, but scientists says that it is more than the lung of the universe, we are kind of

air-conditioning of the universe. That's why we say that it's one of the largest climate regulators in the planet. We have some pictures here that shows how the Amazon looks sometimes when it burns. In my previous job, when I sometimes needed to fly to Santa Cruz de la Sierra in Bolivia or Porto Maldonado in Peru, or Acre in Brazil, it was impossible because you can't see, and the planes can't land because of the smoke. It happened this year too in Santa Cruz de la Sierra in September. It's hard to see what's happening in the Amazon when you think about all the vulnerabilities of the Amazon basin, and I want to put up some pictures here because images talk more than words.

Here are some visions of how the Amazon looks. In 2005 for example, in Menaus, in Amazonas in Brazil, you can see this kind of picture: the first one up there—when the dry season was so hard that people were totally isolated; they could not travel by water and the government of Brazil had to drop food from planes to the people living there. We had extreme events, droughts and floods, lot of vulnerability. We don't know if they are the effects of global climate change, as the scientists have yet to confirm that. We have an accelerated loss of biodiversity, of course; we have mercury contamination because of all the mining, especially gold illegal mining—in all countries of the Amazon biome, and we have populations at risk. When you think about biodiversity, most of the world's biodiversity exists in the economically poorest countries. That happens in the Amazon. Poverty and biodiversity are intimately linked. Loss of biodiversity exacerbates poverty, and poverty is a major threat for biodiversity. In consequence, forests decrease. Maybe some of you, especially the people that are specialists in forestry, can think about the regeneration of the Amazon forest; and it's true, it has the capability to regenerate and there are some examples in our countries. But fast deforestation is like a conspiracy against this kind of recovery in forest terms. We have water cycle alterations, environmental disasters, and we think—if we lose the Amazon biodiversity, where do we find the largest laboratory on the planet? Maybe by losing biodiversity, we are losing the possibility of curing diseases that haven't yet appeared on Earth's surface. And sometimes we think what's happening with the Amazon is like a big paradox; it seems to be the victim but it could also be the region that is suffering a lot because of the climate change or what's happening in the world.

The world puts a lot of pressure in the Amazon. When you think about where to get precious woods, colored fish for the kids, Cayman-skin shoes, exotic pets, bio-diesel—and we are talking a lot about bio-diesel and ethanol fuels for the future, like other alternatives, such as soy for meat, the planet demands alternative fuel—the Asian market requires extensive crops, the breeding of cattle expands farming country: all of this comes from Brazil. The farmers used to have a lot of cattle in Sao Paulo; they are now moving to the Amazon because they have decided to plant sugar cane for bio-diesel and it is a big threat for the Amazon. I'm entering now into the proposal of this speech. Why a shared responsibility?

We know, all of us know that we are in a interconnected world. Disorder in one place of the world is reflected on another. Someone says that the flap of a butterfly wings in Japan may cause a tornado in the USA. And the same happens with the Amazon. What happens if we don't have all of the humidity from the Amazon? Maybe an important part

of the US is going to be a desert, or the same in Latin America, and how does the Amazon influence other places in the world. We all know the importance of biodiversity, all of us rely on biodiversity for our welfare, to help alleviate hunger and poverty, promote good human health, produce clean water, food, fuel, fiber, medicines, contribute to climate control, as I said. We must ensure that biodiversity will be used in a sustainable way in order to ensure that it will be available to us and to future generations.

Yesterday some of the speakers talked about responsibility not only for now but for future generations were almost impossible to imagine. Why is protecting biodiversity in the Amazon so important? We can say many things, just like up on the screen—conserve the headwaters, maintain correct ecosystem functions, pay special attention to the impact from infrastructure projects. There are big infrastructure projects in the Amazon, including roads and agricultural colonization. Most of the countries of the Amazon, until the 1970s had laws about colonization of the Amazon. It was seen, and sometimes is still seen, as a place that you have to go to and take away things from without giving a thought to what to give to the Amazon. We have also dozens of indigenous cultures there, who have lived in the region for thousands of years, and we have to think how things are impacting them. We have thought about how to promote government and civil society involvement in the preservation efforts. If we think about all these possibilities that we have in the Amazon, we have to think about what's happening in the Amazon in terms of the millennium goals, and that if the rate of deforestation and burning of the Amazon continues, we are going to lose more and more forest and biodiversity. In 2004 for example, Brazil lost 26,000 square kilometers, through burning (more than the size of Belgium). And what's happening with the other countries? We don't have exact numbers about what's happening in the other countries [of the Amazon] regarding deforestation rates, but it is for sure that we have very bad numbers to show.

How we can work with this? We are thinking about stressing the role of the indigenous communities which account for a rich cultural diversity in the regions. Protecting forest areas helps the communities to protect their life from the different ways of losing biodiversity. When we talk about shared responsibility, we have to talk about environmental services. This involves a very big discussion between the governments and the Amazon countries about the responsibility of the developed world in terms of saving the Amazon. We know that environmental services are ecological functions of the planet that become services once a human being identifies them as important for his or her life and productive activities. And when you think about what the Amazon provides for the world, you have to think about the logic of payment for environmental services. Recognize the environmental protection that the forests give to the world: economic incentives for people who preserve an area; inversion of the relationship with environmental protection and non-usage has to be rewarded. We have to think about the application of this logic. Promote justice economically, reward economically—we can consider local applications with municipalities and local governments, as well as international application of what protecting the Amazon region means about compensation for services of global interest protections. I know we can have a serious discussion because we are thinking about sovereignty and what are the rights of the

isolated people in the Amazon. At the moment we have 60 groups that have not yet come into contact with what we call the civilization of Western culture, but in the future we have to rethink this in a major way.

To finish my proposals of this speech talking about the shared responsibility—how the world should think about the Amazon, how we can preserve natural resources, how we can work together to protect them and to preserve them for now and the future generations—I chose some thinkers from the ancient Greece to the new era. And when I thought about what Euripides said in ancient Greece “Joint undertakings stand a better chance when they benefit both sides” we can talk about shared responsibility. And when an antique Japanese proverb says: “A single arrow is easily broken but not ten in a bundle,” we are talking about shared responsibility. And when Bertrand Russell says “Mankind has become so much one family that we can not ensure our own prosperity except by ensuring that of everyone else,” we are talking about shared responsibility. Maybe all of these thoughts that I shared with you, can be actualized. People can say these same thing now that the thinkers in the past have said and I’m absolutely sure that in forums like this that IIASA provides to people from everywhere we can think about sharing responsibility like the way that we can live the life in this world. Thank you very much.