

THE UNEXPECTED CATARINA HURRICANE

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AMIGOS
DA TERRA
BRASIL

Friends
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International

"I felt a great sadness / when I *went* to the garden
And saw all the leaves taken away / my tree of Guarapari
I remembered my *childhood* / the time I was a child
When I rested there
My god!
So much ingratitude / done by this hurricane
Breaking leaves and twigs / spreading on the soil
(...)
Since the wind passed / many things *have happened*
The *trees* don't give much fruit anymore / many birds were
killed" *
Maria Leofrisio, Balneário Arroio do Silva/SC.

AMESC file



Between the 27th and the 28th of March 2004, the inhabitants in southern Brazil fell across to an unknown phenomenon. The gusts of wind were frightful, the roofs were torn off, torrential rain wet the interior of the houses, the river submerged the town, in the sea the waves grew up to 5 meters high. The unknown was called Catarina, it is the first hurricane in the history of the South Atlantic.

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"No one could sleep because of the pressure of the wind on the walls and roofs. In a lot of houses the water came in without mercy, making that the longest dawn of history. There was nothing to do, but wait for it to end well or at least in the best way. When the first lights of the day came, I went out in the street, and I had the exact feeling that the city looked like a battlefield, so many things were destroyed. While in the periphery some houses were left without roof, in downtown leafy centennial trees had been pulled out of the soil. It seemed that a giant had pulled them out. It is surely a dawn to forget." Saulo Machado, Araranguá/SC.

Next morning more scares. This phenomenon left cities with up to 95% of the residences without roofs, if not totally damaged, besides the huge loss of R\$87,2 million (approximately U\$ 36,6 million) in agriculture. The great majority of losses were: rice (25%), corn (90%) and bananas (70%). Around 1,800 industries were damaged and couldn't produce for one month; this of course caused great financial loss, resulting in 8,600 employees left without work. Roads were blocked, the trees fell on the houses and cars.

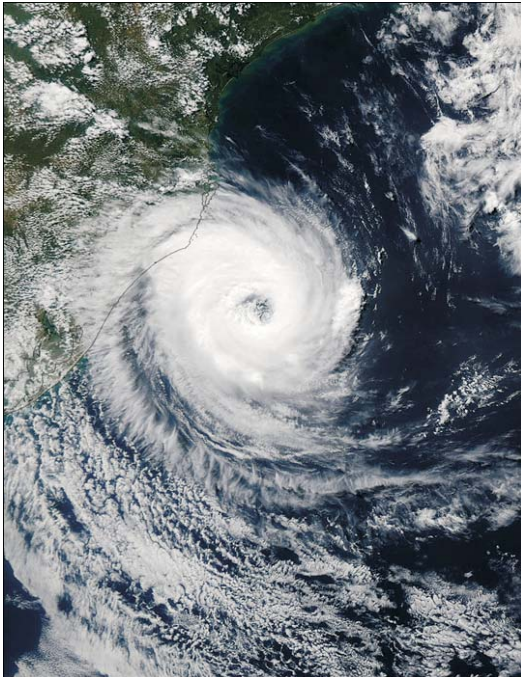
The hurricane hit Brazil in the Northeast of the State of Rio Grande do Sul (RS) and South of Santa Catarina's State (SC). It caused R\$ 1 billion (approximately U\$ 420 million) in financial losses. For some cities, it represents more than the annual governmental fund. Cities remained incommunicable, without water, power or telephone lines for a week. Forty thousand students were left without classes, some until 15 days, because 80% of the schools were damaged or the access to them was blocked. According to the local Civil Defense, this phenomenon hit 23 cities severely, in a place with 402,515 inhabitants and 153,611 constructions. A number of 40,012 of these constructions were damaged and 33,165 people became unsheltered. Four deaths were registered. Seven fishermen were unable to reach the coast in time, they disappeared in the sea.

"The waves were four to five meters high. In the water the boat seemed to be a toy. The wind did whatever it wanted. I just didn't die because I was very lucky." Luciano da Silva, rescued fisherman.

* This poem was originally written in popular Portuguese, the words in italics are the ones changed by the translator.

These numbers are the direct numbers of human, material and financial losses. But there are the indirect numbers that can't be quantified. We are talking of trauma, sadness, humanitarian crises, exoduses. It is a sensation of insecurity that remains in those who involuntarily faced the power of an unexpected hurricane.

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"If we, the ones who study this kind of phenomenon are very shocked, imagine those who ignore what is going on. (...) Basic help and construction material are important for the victims of the hurricane, but the psychological and social help must not be held apart, because the victims are in a state of trauma."
Emerson Marcelino, Researcher of Natural Disasters from UFSC/SC.

Only in June 2005, the researchers from the National Institute for Space Research (INPE/CPTEC) confirmed the classification of the phenomenon as a hurricane, with winds of 180 Km/h (114 mph). The researchers believe that the Catarina Hurricane can be related to climate change and anomaly, due to the warmer temperature of the sea in that occasion, and they alerted about the possibility of this phenomenon to happen again in the South Atlantic.

"In the first minutes of the Sunday dawn, our region was shaken by a phenomenon never registered before in Brazil: the devastating Catarina Hurricane, which the inexperienced and stubborn Brazilian meteorologists didn't take into account, affirming that it was only a "soft" cyclone, denying the North American scientists' alert and forecasts, who have more knowledge about this subject. With that contradictory information, the population thought: "nothing's going to happen". They wouldn't protect themselves from something they thought was 'silly'. The consequences came: hundreds of unsheltered, destroyed houses, trees pulled out to the roots, half-destroyed industries, poles in the soil, lack of electric energy, lack of water and communication, a total chaos." Priest Jorge Luiz, Araranguá/SC.

After this fact, it was necessary to hold a public discussion and explain to the local citizens the causes, impacts and ways of addressing extreme climatic phenomenon, which by all accounts are likely to intensify with the warming of our Planet. Non-governmental organizations and associations of municipalities from the south of the state of Santa Catarina held the "First Meeting of the Southern Region on Natural Phenomenon, Adversities and Climate Change: causes, effects and adaptation needs". The meeting, held in the town of Araranguá, on April 14-15/2005, was held to remember the first anniversary of the day that Catarina Hurricane hit the area.

The event was attended by more than 700 participants, mostly ordinary citizens, in a town located far from large urban centers, where the residents affected by climate change recognized themselves as such, and were able to reflect on their conditions of vulnerability. A consequence of this event, requested by the community, were *Workshops of adaptation on climate change*, held in others cities also hit by the hurricane. This was the beginning of a growing awareness of a global problem, and an opportunity for reflection and search for solutions to local environmental issues.

"Until the time I was aware the Hurricane was terrible, there was no explanation for a wind that strong. We had no idea what was going on. We had been working all day in the crops, and didn't have a chance to watch television or listen to the radio. When we went to the house it was night, and we heard on the nighttime news that it seemed like there was no danger. ... Two trees fell on our house, and we went running to the neighbor's house. When the wind stopped (the eye of the hurricane), we returned home to get blankets and sweaters. The tree that was on top of the house, when the wind came up again, fell on top of the car and killed my husband. From then on I didn't see anything else because I fainted." Peasant Terezinha da Rocha Quirino, Araranguá/SC.

The greenhouse gas (GHG) remains accumulated in the atmosphere for more than a hundred of years. Thus, the consequences of climate change suffered now are a historical responsibility. The developed countries have benefited their own development from the release of GHG since the Industrial Revolution.

Poor communities and developing countries are the least responsible for climate change. But because of their natural, social and economic vulnerability, it's them who are the most affected by the consequences of this change. The impact of climate change shows the great gap between rich and poor countries. Developing countries don't have the same conditions to react against: droughts, floods and extreme climatic phenomena, which increases hunger, lack of drinking water, illnesses, deaths, environmental refugees and thus intensifies poverty. These poor countries have fewer resources to reconstruct and fewer conditions of health and sanitation. Climate change makes them even more vulnerable.

Therefore, the rich countries are the ones who must take the first step to reduce GHG emission. That means: to pay for the cost of energy transition, to determine the end of the extraction of fossil fuels, to finance renewable energy, to opt for efficiency energy, to make technology transfer possible, to reduce their consumption drastically, to pay for the costs of adaptation from the affected ones who suffer from the unsustainable consumption of rich countries. In order to halt global warming, to reduce the climate change consequences and to give conditions to the developing countries to face and adapt, the developed countries must make an ethical and financial commitment.

“Researchers are considering two possibilities: either this (Catarina Hurricane) is a rare event which occurs only very few times, or it's the first sign of climate change showing that our planet suffers from the pollution caused by men's action.” Carlos Nobre, researcher for the CPTEC/INPE.

The incident of Catarina Hurricane was a disaster and shows the vulnerability and the need to invest in adaptation. At the same time, Natural Heritage has already suffered or will suffer from climate change.

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In the south of Brazil, is verified a possibly increased precipitation during the last 30 years, according to Brazil's Initial National Communication to the United Nations Framework Convention on Climate Change. These changes can affect the local agricultural production patterns and the Atlantic Forest, which is a UNESCO Biosphere Reserve a place with endemic species of a highly scientific value of flora and fauna threatened by extinction. Therefore, it is of fundamental importance to make regional climate predictions and analyze the current and future climate change scenarios, to make an assessment of the impact and predict what can happen, which are extreme consequences and which are more probable, to act for mitigation and adaptation.

The local population claims that the Brazilian government act with more responsibility, to recognize the tragic consequences of climate change, to demand prevention policies with urgent actions at international level and at home. These actions have two main goals: to halt global warming, by reducing the actual greenhouse gas emission in order to guarantee a healthy future for the coming generations; and to give better conditions for the population to face the already inevitable consequences of climate change. The more a nation is adapted, the less impact it will suffer.



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“Suddenly it became calm. The temperature increased and we had to take off the T-shirt. The sky became full of stars. We had a strange sensation of relaxation and drowsiness. After 40 minutes, in a fraction of seconds everything became chaos. The wind took our T-shirts. We calculated wind speed at 180km/h.”
Emerson Marcelino, Researcher of Natural Disasters from UFSC/SC.



Catarina Hurricane made the local population consider their vulnerability, the conditions of climate injustice and the local models of development. In the south of Brazil there is the biggest coal fired power plant of Latin America, an outdated energy source which releases the highest quantity of greenhouse gas (GHG) by unit of generated power. Coal extraction and burning causes acid rain, breathing diseases, and soil and water contamination. In Europe this energetic option, as the carbon intensive technology, is being discontinued. But their industries come to the developing countries, where there is no environment control nor goals of GHG reduction present in the Protocol of Kyoto that was enforced on 16th February 2005.

The residents southern Brazil claim for climate justice, they are poor people that do not have conditions nor knowledge or structure to face the disasters caused by hurricanes or other extreme climatic events. Some of those who lost their houses received another house from the government, but others simply received nothing. Some lost their jobs, others have been so traumatized that even a little sound of a wind gust gets them terrified. The ones that faced Catarina Hurricane say that the worst consequence is the insecurity that remains, the insecurity of what is going to happen, the insecurity not to know how to face new climate catastrophes. These communities are becoming stronger as they get together in a global movement to make their values and rights recognized and to make their voices heard.

10/29/2005 CLIMATE JUSTICE MANIFESTO - BRAZIL

In March 2004, we - the communities of South Brazil were hit by the so-called Catarina Hurricane, the first hurricane in the history of the South Atlantic. It severely damaged our cities, our natural resources and affected thousands of people.

We - who already suffer from floods, droughts and tornadoes are concerned and worried about the consequences of climate change, and recognize our situation of vulnerability.

We claim for the Brazilian government to:

- Recognize the dramatic consequences of global warming and thus act firmly with more responsibility at a national and international level.
- Recognize the social, economic and natural vulnerability of Brazil.
- Create and support prevention and adaptation programs in the coastlines regions, especially the ones hit by Catarina Hurricane.
- Create protectionist rules in order to protect our environment from foreign companies who come to threaten, pollute and compromise our biodiversity.
- Demand to the developed countries the reduction of their greenhouse gas emissions and to cover the cost of adaptation.
- Promote an urgent implantation of preventive politics on climate change.
- Invest in the establishment of measures and programs of energy efficiency, renewable energy and in the studies of the consequences of increased temperatures in the South Atlantic.
- Determine the end of forest fires and deforestation in the Amazon.
- Become more responsible for the reduction of actual greenhouse gas emissions.
- Determine the gradual stoppage of the coal power plant in the south of Santa Catarina and Rio Grande do Sul, which releases the highest quantity of greenhouse gas by unit of generated power. And to abandon the plans of establishing new coal plants in Brazil.

We claim for the developed countries to:

- Take the first and efficient step towards reducing greenhouse gas emissions.
- Determine the end of the extraction of fossil fuels.
- Determine politics of efficiency energy as a priority.
- Pay for the cost of energy transition.
- Finance renewable energy.
- Create new mechanisms more efficient than the current ones - to reduce greenhouse gas emissions.
- Pay for the cost of adaptation in developing countries.
- Reduce the unsustainable consumption drastically.
- Make an ethical and financial commitment in order to halt global warming.

We - who live where the eye of the hurricane has been to - are together in an international movement for climate justice, to make our voices heard.

We demand that the government listen to us, look at us and act now with the responsibility needed in order to guarantee a healthy future for the coming generations.

Carolina Herrmann

