

CITY OVERVIEW

Esmeraldas, a medium sized coastal city located in the northwestern corner of Ecuador, covers a land area of 16,155.97 km². The Teaone and Esmeraldas Rivers flow on one side of the city, and with the Pacific Ocean on the other side they make up the hydrological system of the canton. Esmeraldas is part of the Choco micro-region that has one of the highest rates of biodiversity in the world. The annual population growth of Esmeraldas is 3.5% in comparison with the national average of 1.9%¹.

CLIMATE CHANGE RELATED RISKS AND VULNERABILITIES

The city and province of Esmeraldas is considered one of the most vulnerable regions to the effects of climate change in Ecuador. In 2007, almost 60% of the population lived in areas with medium to high risks of floods or landslides. Informal settlements, housing 21% of the canton's population experience devastating effects from mudslides and river overflows during the rainy season. Mangroves, which form a buffer area against the rising river levels, are gradually being lost due to logging, and main forest areas are disappearing due to accelerating deforestation and mono-crop farming. Poor management of the city's natural resources adds to the devastating consequences of climate change

PREPARING FOR CLIMATE CHANGE

In the past, Esmeraldas did not have the culture of comprehensive risk management or disaster prevention in the face of natural events. However, efforts are now being made through the Cantonal Health Council, in coordination with national and local stakeholders, to prepare a risk management plan. An important development has been the preparation of a participatory land use plan for the city, and the zoning of riverbanks. In addition, a participatory effort by citizens and professionals has resulted in a proposed reforestation plan for the city's hillsides including a proposal to declare them protected woodlands. In coordination with the Ministry of Environment, the municipality is implementing an environmental management plan for the Teaone River. Since June 2007, the municipality, Ministry of Education and Ministry of Health have been carrying out an environmental education plan in 96 schools called "Healthy Schools Programme".



Settlements along the riverbanks are vulnerable to seasonal flooding.
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Population: 175,000 (canton: INEC, 2001)

Economy: Services, Agriculture, Industry (INEC, 2001)

Political/Administrative Divisions: Esmeraldas canton is divided into 5 urban parishes and 8 rural parishes



Climate indicators

Climate: The province has a tropical, humid climate with little seasonal variation. The climate varies among Tropical Monsoon of 21°C to Tropical Humid of 25°C.

Mean annual temperature: 25° C.

Average annual rainfall: 2 500 mm.

Seasons: The rainy season lasts from January to May. For the rest of the year, some areas are completely dry or have very little rainfall. The dry season is cooler and less humid.

Relative humidity: 70-95%

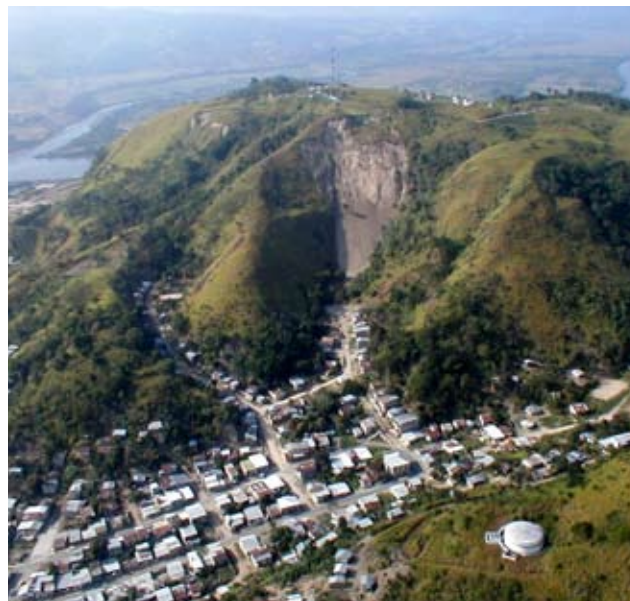
¹ <http://www.selvaeco.org/html/esmeraldas.html>



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THE NATIONAL CONTEXT: ECUADOR

To address Ecuador's vulnerabilities to climate change, the country has put in place an institutional framework to support adaptation at central government level. The Constitution of 2008; the United Nations Framework Convention on Climate Change signed in 1992; development policy; key legislation; and specific strategies and programs address issues relevant to climate change and the need for adaptation. The 2007-2010 national development plan puts forward four policies and strategies aimed at promoting a healthy and sustainable environment, one of which is to develop a response to the effects of climate change. In 1996, the newly created Ministry of Environment (MAE) became the focal organization and the counterpart for the Convention, and the ministry's Adaptation to Climate Change Project is the main tool to disseminate the information available about Climate Change.



Mudslides, common in the rainy season, have devastating effects
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UN-HABITAT'S CITIES IN CLIMATE CHANGE INITIATIVE

UN-HABITAT launched the Sustainable Urban Development Network (SUD-Net), an innovative network of global partners, promoting inter-disciplinary approaches to sustainable urban development.

The Cities in Climate Change Initiative (CCCI) is the flagship programme of SUD-Net. The initiative aims to strengthen the climate change response of cities and local governments. Cities are key drivers of climate change due to their high energy consumption, land use, waste generation and other activities that result in the release of the vast majority of greenhouse gases. At the same time, it is cities, and in particular the urban poor, in the developing world, that are most vulnerable to and have the least resilience against, for example, storms, floods, and droughts. Cities need to respond to Climate Change by cutting their greenhouse gas emissions (mitigation). The negative impact of climate change seems however unavoidable and for most cities in developing countries adaptation to the risks is a must.

The Cities in Climate Change initiative brings together local and national governments, academia, NGOs and

international organizations with the aim to alert cities to the action they can take and by strengthening capacities of cities and their partners to respond to Climate Change. The key components of the Cities in Climate Change initiative are:

- Advocacy, policy dialogue and policy change
- Tool development and tool application
- Piloting climate change mitigation and adaptation measures
- Knowledge management and dissemination, through, amongst others, the UN-HABITAT partner universities and the partnership with UN-HABITAT's Local Government Training Institutes Network.

Initially four cities, Esmeraldas in Ecuador, Kampala in Uganda, Maputo in Mozambique and Sorsogon in the Philippines participated in the Cities in Climate Change Initiative as key partner cities. An additional 5 cities from Africa Bobo Dioulasso in Burkina Faso, Kigali in Rwanda, Mombasa in Kenya, Saint Louis in Senegal and Walvis Bay in Namibia have joined the initiative since July 2009. Cities in 9 Asian Countries are preparing to join CCCI.



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