



# BOLIVIA INFORMATION FORUM

## Bolivia Information Forum Bulletin Special Edition: Focus on Climate Change October 2009

*Climate change has quickly become an important issue for Bolivia. As concern rises over social and environmental impacts, the Bolivian government has assumed a strong position in the global climate policy debate. In the run-up to the key UN climate change conference in Copenhagen in December, the BIF will be supporting a delegation of social movement leaders from the Bolivian Civil Society Climate Change Platform, visiting the UK on their way to Copenhagen. The delegates will be taking part in the **Stop Climate Chaos march on December 5** and will address a **public meeting at University College London on the evening of December 4.***

*This special edition of the BIF Bulletin deals with several aspects of the effects of climate change and the response coming from Bolivia. The **melting of Andean glaciers** threatens water supplies of major cities such as La Paz and El Alto, with potentially drastic consequences. **Rural and peasant communities** are among the most vulnerable to changes in the weather and we see that they are already adapting their lifestyles and livelihoods as the climate changes. The response from Bolivian civil society and social movements has been particularly strong and here we discuss **the Civil Society Platform** as well as the Bolivian **government position** going into the negotiations in Copenhagen. There is an intense debate around **REDD as a mechanism for climate change mitigation** and the **Noel Kempff Mercado Climate Action Project** in Bolivia is an important test case, providing valuable learning to inform these discussions.*

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# Bolivia sets out Copenhagen agenda

The Bolivian government is playing a leading role in global climate change discussions. It has proposed deep structural changes, with a strong justice-oriented position on climate finance, and wide-ranging reforms in global governance. President Evo Morales has been particularly active in putting forward the Bolivian position, making the issue a centrepiece of his interventions before the United Nations General Assembly and in a variety of global climate change forums.

Bolivia has also been active in promoting its climate agenda in the UK. Angelica Navarro, Bolivia's lead climate change negotiator in Europe, visited London in August and met with UK government officials and representatives of civil society. At the 2009 Labour Party conference in September, Bolivian Ambassador Beatriz Souviron outlined the Bolivian position on a panel shared with Secretary of State for Energy and Climate Change Ed Miliband and International Development Secretary Douglas Alexander.

***Vivir bien* means that we should live in harmony with one another and with nature, allowing all to 'live well'.**

Morales has proposed 'ten commandments' to 'save the planet, humankind and life'. These include ending the current system of globalised capitalism; renouncing war (eliminating the environmental impacts of conflict and redirecting military expenditure to fund humanitarian and environmental priorities); making access to water and other basic services human rights for all; utilising clean sources of energy; giving priority to the consumption of local production; and respecting cultural and economic diversity (rather than homogenising everyone to follow western consumerist lifestyles).

At the heart of Bolivian policy is the notion of *vivir bien* (living well). This is derived from indigenous approaches to life whereby people live in communities, in close contact with the natural environ-

ment on which they depend for basic necessities such as food, shelter and water. *Vivir bien* means that we should live in harmony with one another and with nature, allowing all to 'live well'. This contrasts with the consumerist lifestyle of constant accumulation aimed at 'living better' but at the expense of others and the environment. This concept of balance and reciprocity is also invoked in Bolivia's approach to international relations.

Bolivia has played an important role in the group of developing and emerging countries in negotiating the United Nations Framework Convention on Climate Change (UNFCCC). The G77 and China argue that while it is developing countries that are most vulnerable to the effects of climate change, it is the developed nations that are the world's main polluters. It is estimated that developed countries are responsible for around three-quarters of historical emissions, and that at current levels per-capita emissions from the developed world are four times those of the developing world.

**Bolivia's position regarding emission reductions is based on the idea that developed nations owe a 'climate debt' to developing nations.**

Bolivia's position regarding emission reductions is based on this premise and the idea that developed nations owe a 'climate debt' to developing nations. This 'climate debt' is made up of the 'emissions debt' – the historical share of cumulative global greenhouse gas emissions – and the 'adaptation debt' which includes compensation by developed countries to developing countries for the damage caused by climate change.

- Because of their 'emissions debt', developed nations should be obliged to greatly reduce their share of current and future emissions. As commitments are made to reduce and cap global emissions, a limited amount of

'environmental space' is delineated. Bolivia argues that developing nations need a greater share of this space in order to pursue their own economic development.

- As part of the 'climate debt', Bolivia proposes that developed countries contribute at least 1% of their GDP to funds to be used for mitigation and adaptation to climate change. This would amount to considerably more than the US\$100 billion currently proposed by the UK government. The Bolivian proposal also stipulates that these contributions should be over and above existing overseas aid commitments. These should also be administered through a transparent, collectively managed fund under the auspices of the United Nations, not through the World Bank or regional development banks. Bolivia stresses the need for popular participation in the way adaptation and mitigation programmes are designed and managed and for free transfer of green technologies to developing countries to facilitate clean development.

### **Bolivia is also advocating the creation of a World Environment and Climate Change Organisation, which would sit above the existing global financial and international trade institutions.**

Outside the ambit of the UNFCCC negotiations, Bolivia is also advocating the creation of a World Environment and Climate Change Organisation, which would sit above the existing global financial and international trade institutions. The idea of this organisation would be to promote an alternative development model based on pro-poor sustainable development, fair trade and environmental protection. The organisation would have powers to monitor agreements made by governments and sanction breaches of such agree-

ments through fines or increased reduction commitments.

Furthermore, Morales is taking up proposals made by Bolivian social movements and civil society that there should be an International Climate Justice Court. This would investigate and judge environmental damage caused by countries, organisations and corporations with powers to impose sanctions on breaches of international environmental law. Its remit would include responsibility for pollution in the past as well as in current cases where governments, companies or organisations continue to contaminate the environment. Latin American civil society organisations held a session of an 'ethical' international climate court in Cochabamba in mid-October.

### **Latin American civil society organisations held a session of an 'ethical' international climate court in Cochabamba in mid-October.**

The 'ethical court' made non-binding, moral judgments on cases, including mitigation and adaptation measures, which are seen to threaten indigenous and other human rights (including, for example, the promotion of bio-fuels, carbon markets, cases of contamination and the building of hydroelectric dams). It heard accusations against a Dutch foundation – Forest Absorbing Carbon Emissions (FACE) - that wishes to plant 15,000 hectares of trees in developing countries in order to offset the carbon to be emitted by a coal fuelled power plant in Holland. Peruvian NGO CooperAcción denounced the Peruvian government and the Doe Run Perú mining company for the pollution in Junín which has led to dozens of deaths. The Khapi community, from La Paz, used the forum to accuse industrialised and transitional economy countries over the threat to human rights arising from the melting of the Illimani glacier on which it depends for water.

# Responses to climate change: The Civil Society Platform

Officially launched in March 2009, the Indigenous Peoples' and Civil Society Platform for Action on Climate Change brings together social and indigenous movements along with Bolivian and international NGOs to discuss problems of climate change in Bolivia and what best to do about it. It is unique in that it is directed by the five key social and indigenous movements of Bolivia and seeks to promote indigenous knowledge and practices along with the use of alternative technologies to help the country adapt to the realities of the changing climate. It has established close ties with regional and international social movements elsewhere in the Americas. It also launched the climate justice court in Cochabamba in mid-October (see article page 3).

The Platform is supported by national NGOs and international aid agencies like the Catholic Agency for Overseas Development (CAFOD), Christian Aid and Oxfam GB. Funding from these donors and from the UK Foreign and Commonwealth Office (FCO) was used to bring in the necessary administrative and technical support to get the Platform started. The direction and content of the work is now in the hands of Bolivia's main social and indigenous movements who have become the Platform's key protagonists.

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The Platform was formed to give people at the grassroots – those most affected by climate change – the opportunity to make their voices heard. It acts as a space to develop understanding of climate change and to coordinate civil society proposals to respond to the threats it poses.

Its work is underpinned by the indigenous vision of '*vivir bien*' (living well) in harmony with Mother Earth (*Pachamama*). Those involved believe now is the time to use indigenous ancestral knowledge

to establish an equilibrium between humankind and nature in order to care for the environment for future generations. The notion of '*vivir bien*' also encapsulates a communitarian tradition that highlights the need for cooperation rather than competition between peoples.

As the snow disappears from the mountains surrounding La Paz, Bolivians can see the direct impacts of climate change on their country. Glacial melt threatens their sources of water supply (see article pages 6-7). But rural communities have been noticing changes in the climate and increases in temperatures for several decades. Overall, rainfall levels have been declining over this period, and extremes of climate are ever more common; the growing season has become shorter, and higher temperatures are leading to a change in some crops. Indigenous communities throughout the Bolivian Andes talk about how unprecedented extreme frosts and hail have been destroying their crops (see article pages 8-10).

**Social movements are currently taking a series of awareness raising and consultation workshops to all corners of the country.**

Bolivia is also affected by the *El Niño* climate phenomenon. *El Niño* is a warm water current that flows towards the Pacific coast of South America, causing extreme weather conditions such as floods in the lowlands and drought in the highland plains and valleys. It usually occurs every five years or so but according to data from the Global Environment Facility, the incidence of *El Niño* may be becoming both more frequent and severe as a consequence of global warming. Extreme flooding has become more commonplace in recent years, along with cases of drought in the early months of the year.

While acknowledging that climate change is largely the responsibility of Northern countries, the Platform has been applying pressure on the Bolivian government to:

- Adopt a development model that is environmentally sustainable to ensure Bolivia is not contributing to the problem. It has called on the government to apply an immediate moratorium on forestry concessions to allow for replanting of native trees, as well as the need to design a 'green' transport system.
- Implement under the new constitution (approved in a nationwide referendum in January 2009) laws that protect the environment, penalise those guilty of contaminating it, and establish mechanisms for public consultation and monitoring to ensure the country does not further contribute to global warming through extractive industries, agribusiness and large infrastructure and energy projects.
- Ensure that the voice of the grassroots is heard at the UN Climate Change talks in Copenhagen in December. To date the Platform has been recognised by the government as the de facto space for dialogue and consultation with society about climate change issues,

and representatives of the Platform are now included in the official Bolivian delegation to the international negotiations.

Another goal has been to raise awareness about climate and to mobilise people within Bolivia. Social movements are currently taking a series of awareness raising and consultation workshops to all corners of the country. A month of awareness raising events is being organized this autumn called '*Octubre Azul*' (Blue October), including the first meeting of the climate justice tribunal, a national social movement gathering to finalise the Platform's position on climate change, and a gathering to present the outcomes of both events to the meeting of the ALBA governments in Cochabamba.

**Web page:** [www.cambioclimatico.org.bo](http://www.cambioclimatico.org.bo)



**Clemente Salazar, Leader of Indigenous Organisation of Raquaypampa, Cochabamba:**

"We know something needs to be done, we need to act, not just talk and we need to make a start ourselves. Even though we Bolivians aren't polluting a lot, if we don't make a start, we can't ask others to do things either. I know it is not going to be easy, especially for people to give things up.

We need to look for alternatives so that Mother Earth doesn't get any sicker. We all need to put our hand to our heart and question what we are doing, for the sake of future generations."

# Climate change impacts: Glacial melt, past, present and future<sup>1</sup>

*'Bolivia's contribution to climate change is very small. But it will be indigenous and poor peasant farmers like us who will feel the effects the most. We are very vulnerable because historically the Bolivian state has not formulated policies to protect us'.*

**Cristian Domínguez, peasant leader, CSUTCB, the main peasant confederation.**

In July 2009, Bolivia's leading glaciologist, Edson Ramírez, was sitting in his office at the University of San Andrés in La Paz, displaying pictures from his visit the month before to Chacaltaya. 'It's gone', he said simply, referring to the 5,300-metre glacier that as recently as 20 years ago was the world's highest ski run. As he pointed out, he had predicted that it would disappear in 2015, so he was out by six years.

Scientists like Dr Ramírez are constantly revising downwards the year when they estimate other low-lying glaciers like Chacaltaya will disappear completely. Chacaltaya has become an icon of the accelerated glacial retreat happening throughout the tropical Andes. When the Intergovernmental Panel on Climate Change (IPCC) launched its Fourth Assessment report on Impacts, Adaptation and Vulnerability in April 2007, photos were flashed up at its press conference of what had happened to Chacaltaya as a symbol of rising global temperatures.

**Chacaltaya has become an icon of the accelerated glacial retreat happening throughout the tropical Andes.**

For Bolivia, the loss of the glacier is not just symbolic. Nor is it simply a matter of less tourists travelling to the mountain to have the ultimate skiing experience. Nearby glaciers provide a significant amount of drinking water, particularly in the dry season, to hundreds of thousands of women and men living in El Alto and La Paz. The Zongo glacier, which is much larger than Chacaltaya, is also retreating. It is one of several glaciers contributing water to the hydroelectric power stations

that give the country 40 per cent of its electricity.

Irrigation schemes are used in only 10 per cent of Bolivia's cultivated land, a relatively small percentage compared to Peru and Ecuador. The remaining 90 per cent depends on a regular supply from precipitation, underground aquifers and glaciers. Thousands of poor farmers living at high altitudes rely on the water from glaciers for part of their irrigation supply.

The retreating glaciers are just one of the five main impacts – both now and in the future – that Bolivia is facing as a result of climate change. The other four are food security, the frequency and intensity of disasters, mosquito-borne diseases and forest fires.

According to a study released in early 2009, the Paris-based Development Research Institute (IRD) estimated that the glaciers in the Cordillera Real mountain range in Bolivia had lost more than 40 per cent of their volume between 1975 and 2006. The IRD said that the volume had remained pretty constant until 1975, but had diminished quickly since then. Figures used in a report for the UNDP suggested a 30 per cent drop in surface area over a similar period.

**In February 2009, for the first time in living memory, the local authorities in La Paz and El Alto asked citizens to moderate their use of water during carnival.**

The main cause is generally considered to be the rise in near-surface average air temperatures. Studies show an average increase of about 0.10° C per decade since 1939, with the bulk of the warming occurring over the last two decades. The rate of warming has almost tripled since the mid-1970s to between 0.32 and 0.34°C per decade.

Ramírez has carried out a detailed study of the Tuni-Condoriri basins which supply water to at least one million inhabitants of El Alto and La Paz. By examining aerial photographs since

1956, he estimates that the Condoriri glacier has lost 44 per cent of its area between that date and 2006, whilst the Tuni glacier has lost 55 per cent. He calculates that the Condoriri glaciers will have disappeared completely by 2045, and the Tuni glacier in just 16 years' time (2025).

The key question is how much of the water supply comes from the melt from a particular glacier as compared to precipitation, and at what time of the year. Ramírez estimates that in the case of Tuni-Condoriri it could be as much as 30 per cent, although he stresses that more research needs to be done. It is known that semi-arid mountainous ecosystems like those in Bolivia are highly vulnerable to the disruption of local hydrological patterns. For example, the retreat of the glaciers and higher temperatures could have a major effect on the central role *bofedales*, or high-land wetlands, play in regulating local water supplies and releasing it during the dry season.

It should be emphasised that there are a lot of unknowns. The retreat of the glaciers may mean that in the short-term there is a net annual increase in water availability in some basins, which could raise expectations of water consumption which are unsustainable in the longer-term and cause adjustment problems. Many models predict greater 'seasonality' of water supply where run-off from the glaciers will increase in the wet season but decrease in the dry season, which could last for longer periods than currently and could combine with less precipitation. One recent

study described this as a 'most dramatic change ... which would challenge future water management drastically'. What is more certain that the accelerated retreat and/or eventual disappearance of the glaciers add another layer of vulnerability to water supplies for agriculture, urban consumption, power generation and ecosystem sustainability.

In February 2009, for the first time in living memory, the local authorities in La Paz and El Alto asked citizens to moderate their use of water during carnival. They were concerned by the five-metre drop in the level of water in key reservoirs due to unusually low levels of rainfall during the rainy season. It would not be too alarmist a scenario to imagine much more severe restrictions on water use in the decades to come when the lack of glacial water combines with a period of low levels of precipitation. El Alto's population for example is increasing at 3 per cent year, hugely increasing the demand on drinking water. It is already a highly politicised society organised around water issues. The potential for severe social conflict is high.

<sup>1</sup> **This article is an extract from the forthcoming Oxfam report: 'Climate change, poverty and adaptation in Bolivia'.**

# Rural communities' perceptions of climate change and its effects<sup>1</sup>

A small flock of green tropical parrots dives chattering across the stark Andean hillside in the ayllu Secoya, some distance from the highland mining town of Llallagua. The scene might seem to be taken from a book of magical realism, yet it is one that is becoming ever more common with changes in the climate. This area, over 4,000 metres above sea level, used to be affected by heavy snowstorms but is now becoming home to animals previously unknown in such a cold habitat. Not all change however is benign. Over the last 15 years, men and women living in rural areas of the Bolivian Altiplano have been witnesses to climate change and how it affects their everyday lives.

## Evidence of climate change: how peasant communities see it

From the northern Altiplano to the Norte Potosí, substantial though differing changes have been taking place, often a consequence of climate change. Some areas have benefited from these, but most have not.

### Ancoraimes, to the east of Lake Titicaca

- Corpa Grande, on the Altiplano about a mile from Lake Titicaca, has seen radical changes over the last 20 years. Instead of producing the staple potato crop, the community now mainly produces peas and onions for sale, using irrigation. Other cultivable land has been reduced, though people continue to grow some potatoes for their own use. Families have cut back animal numbers given the poor quality of grazing land. Two of the five community reservoirs have dried up.
- Sotalaya, on the banks of Lake Titicaca, has limited land available for agriculture and animal husbandry, though families produce some potatoes on their very small plots. This has made them turn to fishing, but lax controls on over-fishing mean that catches are ever smaller. This, in turn, has encouraged further diversification, with families setting up a scenic restaurant for tourists, resorting to temporary migration and involving themselves in small-scale commerce.
- Calahuancane, at 4,100 metres, has always been used to cold temperatures, and has been traditionally geared to animal raising (sheep and llamas). Increases in temperatures have opened up possibilities for agriculture and new

crops sown, including fodder. Production levels of potatoes and other crops have improved, while there are also opportunities in planting more forage.

- Inca Caturapi, in the high valleys to the east of the cordillera, lies at 3,500 metres. Some call it paradise, due to its different ecological levels which enable a variety of crops to be produced. Potato production on community lands has been complemented by peas and broad beans for sale. However, in 2007 the community lost all its potato harvests due to frost and hailstorms. In 2009, frost destroyed the pea harvest, depriving families of produce to sell in the market. Men have had to migrate in search of work, and are now absent from the community for much of the year.

### Northern Potosi

- Jachojo lies at 4,000 metres. The area has been known in the past for its cold conditions and heavy snowstorms. Lands that previously were swampy and used for animal grazing have now been taken over for agricultural use. While potato yields have improved and families are normally able to put some aside for sale, people are keeping fewer animals than previously due to the deterioration in grazing areas. Families are also producing chuño (dehydrated potato), some for sale.
- Chillcapalca also lies at about 4,000 metres. Here climatic changes have brought many difficulties for the community. Families used to sell and barter potatoes in exchange for sugar and bread, at the Siglo XX mine. This meant they had enough to feed themselves all year round. Now, production levels have fallen and people only have enough to keep themselves going for eight months. Deteriorating pastures are forcing many to reduce the size of their flocks.
- Capunita and Villa Arbolitos share a large area of what used to be swampy plain. This has dried out due to warmer weather and is now being used for crops. Potato yields used to be high, but have now fallen by half. An increase in the number of families living in the communities has brought a breakdown of community management, and more intensive land use has led to declining soil fertility. The lack of good pasture has forced families to reduce the size of their flocks. Temporary migration, particularly to the mines, has become a necessity



to supplement family income. Four young people from Villa Arbolitos are currently working in Spain and sending money home.

- Phutara and Chaca are both situated at about 4,000 metres in an area much affected in the past by the cold and snow. Higher temperatures have led to changes in crops (onions, broad beans and peas, and different varieties of potatoes). Potato yields have improved somewhat, though they are still low, and families produce good amounts of chuño. Those who can take their animals to the higher pastures are able to maintain their flocks.
- Villcapujio and Merkaymaya are communities on the fertile plain outside Uncía, close to the market town and mining centre of Llagua. Collective farm management has largely broken down, with some families renting land. The good yields of the past have decreased. Warmer weather has led to changes in crops, with the introduction of broad beans, alfalfa and some fruit trees. Families have got rid of their flocks, though some now keep cows. People no longer have savings in kind (animals, dried foods), and sell milk, cheese and vegetables to earn money.

## Community members talk about the irregular nature of the climate, and the difficulties they have in forecasting it.

### Impact on agriculture

Community members talk about the irregular nature of the climate, and the difficulties they have in forecasting it. In areas where the snow used to lie deep, now it rarely snows, or only at higher altitudes. Overall it rains less as the rainy period has been reduced from five to six months to three to four. However, the rains are intermittent and often torrential. In the area near Lake Titicaca, it is estimated that one year in every five will bring complete harvest failure, while four out of five years bring drought to parts of Potosí. Temperatures are higher, and people talk of the sun having 'fallen' from its place in the sky. Hailstorms and frosts are unpredictable and more frequent.

Flora and fauna. The cases above show that land use is changing, often becoming more intensive. This means that the long fallow periods needed to regenerate the soil are no longer possible. This ends up degrading the quality of the soil, making it more vulnerable to erosion from the heavy rains. In some communities, people

talk of the drying up of water sources and reservoirs. Pasture is affected by shorter rainy seasons and heavier rains, the result being erosion and less growth of grasses. New birds -- such as the green parrots of Secoya -- and insects such as bees and crickets are appearing, whilst other animals and birds, common in the past, such as toads and condors, have largely disappeared. New crops and fruit trees are being planted.

Agricultural output. The warmer weather and shorter periods of rain have brought with them changes in the types of potato grown (less 'native' Andean varieties) and in the production of grains, with new crops being introduced such as onions, broad beans, peas, wheat, and even some maize and apple and peach trees. Potato yields seem to have improved in the previously colder higher reaches, however they have decreased in other areas. More pests, the strong sun and unexpected hailstorms or frosts can create havoc in terms of production. Where it is still cold at night in June-July, people continue to prepare chuño to keep for times of food shortage. Reduced harvests mean that people do not have enough potatoes to survive throughout the year, and have little or nothing to sell. This in turn is forcing people to use migration as an essential part of their income, with men often staying away for much of the year. This has important implications for women's roles in production and community life.

## Market pressures and the consequences of reduced or even failed harvests are obliging families to look towards migration as a way of making ends meet.

Animal rearing. The shorter rainy season and the prevalence of violent storms have made it more difficult to develop natural pastures, and this is causing erosion in some areas. Many families have reduced the size of their flocks. Others are turning to keeping a few cows, which can be tethered nearer to home. Sheep in particular are suffering from new diseases, with the sun affecting their wool and even causing blindness in some. This affects people's capacity to make cheese and use the wool. Traditionally, keeping animals has been an insurance policy against hard times.

### Social, economic and cultural impacts

Temporary migration and improvements in road communications have led to increased contact of

families with the market over recent years. This has brought changes in diet, with people beginning to eat new foodstuffs such as rice and pasta. They therefore need more cash to pay for food, as well as other family expenses such as education.

Market pressures and the consequences of reduced or even failed harvests are obliging families to look towards migration as a way of making ends meet. In the communities, people speak of men staying away most of the year now rather than the temporary migration that used to take place during the months of scant agricultural activity. Young people in particular leave for the cities (La Paz, Cochabamba and Santa Cruz), for the mines, or for coca-producing areas; others leave for more distant destinations -- Argentina and even Spain.

Increased demographic pressures, coupled with less predictable harvests, are also leading to changes in traditional patterns of collectively managed production. Soil quality is also being affected, not least because land is not left fallow for long enough.

Climate change can also affect people's health. Those taking animals out to pasture each day, particularly women, complain of the strong sun, which at times affects their sight; also children, walking lengthy distances to school or people working in the fields report similar effects. Differences between day and night temperatures are very high (30°C), bringing on respiratory problems for old and young alike.

Climate change also affects food security. People are less able than before to put aside dried foods for times of need, and tend to have fewer animals (savings) than previously. In the event of a strong drought -- like that of 1982-83 when the *Niño* effect was particularly marked and families were forced to eat wild leaves and plants and sell their animals -- people will have little to fall back on.

The inability to predict climate makes people question the world around them. Previously they

relied on certain indicators to decide when to sow crops. These are now much less reliable than in the past, and the parameters of agricultural production have moved.

### **Creativity in adapting to changed circumstances**

In the past, people living in the Andes have shown themselves to be remarkably good at adapting to changed environmental conditions. They have made skilful use of terracing to ensure best use of the rains, developed techniques to look after produce, and put by food for the years when harvests do fail.

Today they are developing new strategies, sowing at several different times and in different places, sowing new varieties of potatoes and introducing new crops. People have been experimenting with different crops and techniques. Some are building new terraces or reservoirs, while others are growing vegetables in greenhouses. Efforts are being made to understand the 'new' climate, identifying indicators that help interpret the new conditions.

Many people are changing the kind of activities they are involved in, or changing the mix of activities to make ends meet. According to local conditions, some communities are putting more effort into potato production, others on diversifying their crops, others on raising animals for sale, or production of milk and cheese. Many are spending more time away from the community, to complement family incomes, whilst others turn to small-scale commerce to supplement their income.

All attempts to help people adapt to the challenges brought by climate change must therefore take as a starting point their own, time-tested ways of adapting to changes in their environment.

<sup>1</sup> ***Percepciones de comunarios y comunarias del Altiplano Boliviano sobre los cambios en el clima y sus efectos***, Ann Chaplin, La Paz, 2009: study commissioned by Christian Aid, with involvement of CIPE and CIPCA La Paz.

# Greenpeace report slams Bolivian carbon offset scheme

By Maria Arce<sup>1</sup>

Greenpeace, the international environmental campaigning group, has just published a report that is highly critical of the Noel Kempff Climate Action Project (NKCAP) in the eastern department of Santa Cruz. In *'Carbon Scam: NKCAP and the Push for Sub-national Forests Offsets'* Greenpeace highlights what it sees as the many inconsistencies in the methodology used to quantify emissions reductions and the NKCAP's failure to properly vet the system of accreditation. The report also highlights the lack of any involvement by local communities in the running of the NKCAP from the outset.

## Debates around REDD

There is broad agreement that Reducing Emissions from Deforestation and forest Degradation in developing countries – known as REDD - is a fundamental component of the climate change negotiations. Since deforestation alone accounts for 20 per cent of global greenhouse gas emissions, dealing with this problem appropriately plays a very important role in preventing the rise of global temperatures above 2 degrees centigrade. REDD is therefore an integral part of the mitigation responses required to address the impacts of climate change.

**There is broad agreement that REDD is a fundamental component of the climate change negotiations.**

Apart from the methodological challenges of emissions measurement and verification, however, the REDD debate brings to the discussion key issues concerning forest governance and how the proposed benefits are shared among local people. Due to the very complexity of this debate, REDD interventions to date belong mainly to the voluntary sphere.

The Noel Kempff Climate Action Project came to life in 1997 when the Nature Conservancy successfully championed three big American energy companies to enter into a 30-year REDD agree-

ment with the Bolivian government of the time. The agreement seeks to mobilise investment through carbon offsetting for the protection of this national park (located on the border with Brazil) from logging activities. The project, unlike the issues being debated under the UNFCCC, is sub-national in nature.

After twelve years of operation, the promoters of the NKCAP have recently published a report on its results in a clear bid to influence the current global climate discussions. Carbon offsetting through the voluntary carbon market has proved to be a popular approach. It has been adopted by mainly western businesses to access the carbon credits that enable them to continue emitting greenhouse gasses on condition that they invest in such projects in the South.

**While clearly beneficial in several ways for the polluter, this brings mixed benefits to the communities affected in developing countries.**

While clearly beneficial in several ways for the polluter, this brings mixed benefits to the communities affected in developing countries. Examples abound of where carbon trading has failed to have positive consequences for them. So the NKCAP experience is interesting in what it says about such local impacts, and the broader issues of feasibility and sustainability.

## Winners and losers

The NKCAP has had clear advantages for the three American energy companies involved: American Electric Power, BP-Amoco and Pacificorp. It has helped confer on them a 'green' profile. It also has provided them with a cheaper alternative to cutting the emissions they generate.

The NKCAP sheds some light on the difficulties of accurately measuring the emissions reduced by such schemes. While at the beginning, it was thought that 55 million tonnes of carbon dioxide would be cut, that figure now been reduced to 5.8 million tonnes. If not addressed, discrepancies of this magnitude could mean not only that substan-

tial additional emissions are being pumped into the atmosphere but that considerable profits are being generated for the parties involved in such carbon trading. That is why under the UNFCCC framework emissions reductions should be 'measurable, verifiable and reportable'.

While flagging up the benefits, the NKCAP fails to mention the legal and political context that has influenced the project's development over the last twelve years. In the first instance, the 1996 Forestry Law had a major impact on the way forest management and how forestry markets have operated, irrespective of NKCAP (which was introduced the year after the law was passed).

The way in which local communities and indigenous peoples living in the NKCAP reserve have engaged in the project also seems to have followed a 'top-down' approach with little participation, although more independent research is required to establish exactly whether and how local communities are benefiting and to what extent. According to some sources, local and indigenous communities were only informed about the nature of the initiative as late as 2005. If true, this would violate the norms of "free, prior and informed consent" contained in the REDD mechanism.

There has been increasing criticism over the last couple of years of climate negotiations about the way in which REDD works in practice. Environmental, human rights and development NGOs, as well as indigenous peoples, have attacked the way in which some countries have sought to prevent the rights of indigenous peoples and local communities being included in REDD, not least since millions of poor people around the world depend on the forests for their lives and livelihoods. There is also concern about the emphasis given to strictly market-based approaches.

Bolivia's position in the climate change negotiations strongly supports the rights of indigenous peoples as well as the rights of the *pachamama*. This is quite different to the stance under which the original REDD agreement was made in 1997. The Bolivian government will want to ensure consistency in the principles it defends in the coming negotiations. It will also want to take a good look at the NKCAP to avoid double counting of emissions when a nationally-based REDD agreement is in place.

### Visit to the area

More than a decade ago I visited the NKCAP area. Nature and biodiversity there are extraordinary, but life was full of hardship for the local communities. At the same time, foreign investors were busy acquiring property to establish niche eco tourism projects. There was no doubt in my mind, at least, who would reap the biggest benefits and who would maintain overall control over the area. It was not hard to imagine local communities being left with one or two social initiatives and the empty promise of development.

<sup>1</sup> **Maria Arce is a Bolivian engineer with wide ranging experience working on environmental and sustainable development issues.**