# PERUVIAN CIVIL SOCIETY PERSPECTIVE ON WORLD BANK ENERGY STRATEGY

The Energy for Our Common Future project brings together responses and alternative approaches to the World Bank energy strategy. For Peru's civil society, the priority is to conserve fossil fuel resources while building energy security and diversifying delivery through renewable energy technologies.

In Peru today, about 80 per cent of the country has access to electricity. About 35 per cent of this electricity is generated by gas, but because of high demand it is expected that up to 90 per cent of new power plants will be gas-based. This is unacceptable because gas is a limited resource, and because using gas to produce electricity contributes to climate change. Demand for energy is growing and we must act responsibly in order to feed this demand.

Still, approximately 20 per cent of the population have no access to basic utilities and use outdated and unhealthy sources of energy such as firewood for heating, cooking and other energy needs. Sharing the benefits of modern society and Peru's rich energy potential with more people will enable many Peruvians living in a subsistence economy to escape poverty.

Peruvian civil society is pushing for a shift towards renewable energy and for responsible use of Peru's natural gas. We ask for better government policies to ensure proper monitoring and evaluation of uses and impacts of energy sources and we ask that the World Bank Group be open, accountable and responsible in funding and evaluating energy projects.

To further this campaign, various nongovernmental organisations are coordinating the Peruvian Renewable Energy Platform.<sup>1</sup> Peru's agriculture and energy ministries and now its new environment ministry occasionally participate in the Platform, which has held three national congresses on renewable energy. New associations have formed in Peru, such as the Solar Energy Association, the Biofuels Producers' Association and the Renewable Energy Association (mainly comprising wind-energy investors), as have various renewable energy centres or groups in three state universities outside Peru's capital, Lima.

Other issues going hand in hand with our demand for energy include:

- the need for political, economic and social stability
- the challenge of building capacity and technology
- the need for decentralised energy delivery
- the challenge of involving more people in energy decision-making through local community consultation
- the need for greater transparency on resources.

All of these issues must be addressed when the World Bank Group and the government consider energy projects and funding.

## **Current models**

Natural gas is used efficiently in transport, in industry and in households, but the policy for using it for electricity generation should be reviewed. Electricity generation from gas is inefficient and wastes 50 per cent of the calorific power of the gas. Today, 35 per cent of thermal generation is produced with gas. We believe it should stay at this level if we do not want future generations to say that natural gas was inefficiently used and over-exploited. It should be used in the sectors where it adds greatest value for Peru.

Lead partners: National Association of Research Centres, Social Welfare and Development (ANC)/ Citizens Movement Against Climate Change (MOCICC) and Centre for Agricultural Development (CEDAP)









Energy demand has grown but supply has not, thanks to a series of mistaken policies that have caused a bottleneck. Energy generation is growing but at this rate 90 per cent of new thermal generation is expected to be gas-based. Limits must be put in place, because gas reserves are finite and it would be best to use water and wind power more to diversify energy supply so that the gas lasts longer for the benefit of the country. Gas must be used more efficiently, where it can help Peru's competitiveness and energy sustainability, and not squandered.

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#### Must move from gas to renewables

Today's development model is carbon-based but Peru cannot go on using oil. Unless fossil fuel consumption is cut by three-quarters, the fight against climate change will be lost. It is paramount that Peru turns this problem into an opportunity. Diversifying national energy production is fundamental to the national strategy for mitigating climate change. Renewable energy is a valuable chance to create a low-carbon, competitive and sustainable economy.

#### **Potential models**

#### Solar

Photovoltaic systems should be considered for more houses in the short term. Many people fear that these systems will be installed and then abandoned. To avoid this, good training must be provided so that systems are maintained and sustainable.

#### Hydro

Hydroelectric plants could produce 20,000 megawatts of power. This is untapped potential. To date, Peru has only used five per cent of its hydroelectric potential.

#### **Biofuels**

Biofuels are at once an opportunity, a challenge and a problem. Biofuel energy is derived from crops. These are grown in almost all Latin American countries at the encouragement of the United States, which has the biggest demand for biofuels (particularly ethanol) worldwide. The United Nations Economic Commission for Latin America and the Caribbean (ECLAC) proposes that policies promoting biofuels in Latin America be considered from an interinstitutional perspective. This perspective should take in institutional, energy, agricultural, economic, social, industrial and technological concerns, to maintain economic, social and environmental balance.

## **Governance problems**

## **World Bank Group contradictions**

Climate change demands that multilaterals

and the World Bank Group deliver a range of products and funding for low-carbon renewable energy. However, at the same time as delivering investment for low-carbon energy, the Bank continues to fund projects that use high-carbon fossil fuels for exploitation and infrastructure, against all climate change objectives.

### World Bank Group monitoring

The problem is not only that the Bank funds fossil fuel projects, but also that it does not monitor project impacts. The International Finance Corporation (IFC) of the World Bank Group funded the Camisea gas pipeline in Peru despite being asked not to do so in a number of community meetings. Now they do not know what to do with the legion of problems caused by this project. Communities in the area of the pipeline have complained about losing land to the pipeline and have had to fight for sufficient compensation. Social services promised as compensation have not been delivered and communities have complained of land and water pollution around the pipes. Overall, communities have not benefited from the pipeline and feel let down by the pipeline developers, the local authorities and the IFC.

This shows that monitoring and supervision by the World Bank Group is not working. Clearly the government is not responding; neither is the pipeline developer nor the IFC. The IFC's performance regulations require it to evaluate the project's social and environmental performance but not that of businesses related to the project, although these are connected.

## Government laws, standards and monitoring

For many years, Peru has lacked a long-term energy development plan. Private companies do have plans, but the state neglects the issue. As a result, Peru has a business policy for energy that does not necessarily coincide with national energy interests. The pressing issue for Peru is how to produce and use energy in the 21st century, especially considering the local and global challenges of water, desertification, deforestation and climate change.

There must be comprehensive reform of Peru's laws on hydrocarbons and energy. This includes the reform of Act 26221, passed in 1993, which stipulates that hydrocarbons where they lie belong to the state, but once they are extracted they belong to the owner of the concession following payment of royalties. Energy policy must change to effect a better equation between the market and the state.

Likewise, Peru has not updated its figures on water in 30 years. Recently, the

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government signed an agreement (with the support of the World Bank Group) to update its water map. This is a good step, but without permanent real-time monitoring of water volumes, or a historical record of volumes in all of Peru's river basins over the past 30 years, there is no possibility of creating efficient hydropower projects. It is critical to ensure that there is enough water for agriculture and the daily needs of citizens as well as energy and electricity production.

Gas cannot solve everything, and it would be wrong to go above 35 per cent of electricity generation through gas thermals. However, the government's policy for promoting renewables is not coherent and there are barriers and interests that are resistant to change.

#### **Potential framework**

The Peruvian government has set up a promotional framework for alternative renewable energy based on a guarantee that it will purchase alternative energy for projects for 20 years. This should ensure that every year five per cent of all energy supplied in the country is from alternative and renewable sources. This promotional framework survives and has made progress thanks to open dialogue with various actors. To implement the framework effectively, all potential investors were asked by the government to organise, and they did so. They formed the Biofuels Producers' Association, Renewable Energy Association and Solar Energy Association. These are independent and are fighting to ensure that the framework is applied effectively in Peru. But it is not easy to develop consensusbuilt policies with real participation. There remains some distance between competent political authorities, policy decision-takers, technical sectors and civil society.

## Social and environmental issues

## **Human right to safe, affordable energy** Peru's civil society sees energy not as a

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right to be able to acquire affordable, clean energy. This means that the process of energy generation, distribution and commercialisation should not affect the rights of citizens. Social unrest and environmental problems have arisen because of hydrocarbon and gas industry activity, and when gas is exported the local market faces shortages.

The poorest people in the country, especially in rural areas, are hardest hit by energy problems. People are not necessarily against energy projects such as the Camisea gas pipeline, hydroelectric plants or mining in their areas. Their protest is against the fact that they are unable to participate in the development that these activities could produce. Their reaction is: 'If you are going to enjoy growth, then let us grow together.'

## **Civil society recommendations**

#### Decentralisation

Regional and local administration capacity must be developed and new options introduced – rural electricity concessions, subsidies for isolated systems and tariffs for photovoltaic or hybrid micro-networks.

#### Credit and technical training

Small and medium businesses need two things to help implement decentralised energy projects: financial credit and technical assistance programmes. They need further training in the productive uses of energy for income generation, and access to credit to develop micro-hydroelectric plants and other renewable technologies.

#### Renewable electricity grid

The second national declaration on climate change is in course. Peru cannot waste time. Gas has helped the national economy and can do so further, but it is not renewable and it is most efficient to use it in transport, industry and the home. Peru should generate electricity with water and wind, to ensure energy security, competitiveness, sustainability and lower-carbon production.

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## Case study 1: Oil and community action in the Loreto region

#### **Current community strategy**

Loreto is one of Peru's major oil-drilling areas. Fewer than half the people in the region have electricity. There is no service in rural areas with native communities and ethnic populations. Estimates suggest that there are about 803 communities with no access to electricity.

Over the past 30 years, the region has experienced the harmful impacts of oil development. The oil industry does not harm communities themselves, but the area where the oil is drilled. It affects the headwaters of the rivers and gullies, which are rich in fish, and the forest ecosystems, which are the source of fruit, vegetables, meat and the *irapay* leaves the communities use to cover the roofs of their houses. **The communities vigorously reject oil production because they fear it will continue to pollute their resources.** 

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Since 2007, Pluspetrol Norte SA (the main drilling company in Loreto) has run community relations in its corporate social responsibility programme. Their key objective is **to reduce or eliminate social risks that may lead to violence and rejection of investment**, risking continuity of business activity and return on investment. An example is the project called Healthy Families in the Native Communities of the Pastaza, Tigre and Corriente River Valleys. Its aim is to improve health and nutrition for children, households and communities and basic sanitation practices. The project is now working with 11 native communities in the Trompeteros district, and funding has been secured for 2011 to include eight more.

Activities include Community Nutrition Watch for under-fives, and family training in child nutrition, handling water, hand-washing and proper waste disposal. The basic sanitation component includes household ecological lavatories and organising and training the communities' water committees. To ensure a proper diet, the project will encourage the communities to plant kitchen gardens in each household where they can grow vegetables.

However, if native populations have electricity their living conditions will improve remarkably. Their health will improve (with better infrastructure), they will have more and better information, will be connected with other communities and have better education services.

## A new proposal

In 2008, the Loreto regional government (GOREL) and Practical Action (formerly Intermediate Technology Development Group – ITDG), signed a cooperation agreement for a Regional Rural Electrification Plan, using renewable energy. It will promote rural energy planning in the regions and provinces, to reach populations not included in government or electricity company plans. This is a pioneering idea as it develops a methodology for:

- organising for intervention with entities that promote rural electrification in the province
- evaluating energy needs and potential in communities that are not included in regional or national plans for extending the mains
- identifying local economic potential through productive chains, which could improve peasant-farmer income through the use of electricity
- designing training courses for local government technical staff, who will be responsible for implementing and monitoring the plan in future.

The project is supported by Engineering Without Borders ISF Barcelona (Spain) and Green Empowerment (United States). To date, 80 per cent of the field work has been finished and projects have been identified. At the same time, work is going ahead with district municipalities in the areas where renewable energy projects are to be carried out. They have taken important decisions, pledging to co-fund the projects. One example is the 25-kilowatt hydraulic micro-station that is to be built in the town of Chayahuita, in the Cahuapanas district, which has officially received support from its district municipality.

A Regional Energy Committee has been set up, led by the Regional Energy and Mines Department, with the support of Practical Action and others involved in the project. This is a decisive step towards consensus in the region, where it is difficult to develop an interconnected mains system and deliver electricity to isolated communities. The project is expected to finish by the end of 2010. By then there should be **an electrification programme using renewable energy** supported by international technical cooperation, the regional government and local municipalities.

#### **Endnotes**

1 Members of the Peruvian Renewable Energy Platform include Global Village Energy Partnership (GVEP), Netherlands Development Organisation (SNV), Swisscontact, Practical Action (formerly Intermediate Technology Development Group – ITDG)





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