

***Peru Ambiental* magazine Interviews Economist Iris Cárdenas Pino**

Economist Iris Cárdenas Pino, General Director of the General Bureau of Energy Environmental Affairs of the Ministry of Energy and Mines, has a Ph.D. in Environment and Sustainable Development and a Master's degree in Economics with a Major in Quantitative Methods in Economics.

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She has more than 15 years of experience in rural development, project evaluation, energy market studies in Peru and several Latin American countries, energy planning, energy economics, environment, sustainable development. She has also represented Peru at different international forums, such as OLADE (Latin American Energy Organization), APEC, etc. This is what she replied to our questions:

Would you please tell us what is the function of the Bureau of Energy Environmental Affairs?

Its main purpose is to propose the environmental conservation policy for the sustainable development of hydrocarbon and energy sector activities; and this implies the proposal of standards for environmental impact assessments and the appraisal of environmental impact assessments, as well as offering training programs in those matters.

Is the energy sector reducing its emission impact on the country?

Our country has devised environmental quality standards to ensure that the health of individuals is not affected by the development of the energy sector and industrial, commercial and other activities. With regard to the maximum allowable limits for energy related activities, over ten years ago, the Ministry of Energy and Mines submitted to the CONAM (National Environmental Council) a proposal agreed by all sectors which to date has not been approved by the MINAM (Ministry of Environment). Notwithstanding that, we consider the limits established by the World Bank when we appraise environmental impact assessments or environmental instruments; and hydrocarbon related activities are regulated by our environmental protection regulation, which establishes maximum allowable limits for gas and particulate emissions for exploration, exploitation and transformation.

The Ministry has been issuing standards regarding fuel quality through the General Bureau of Hydrocarbons, which is the technical agency in charge of regulating fuel quality. Gasoline has been lead-free since 2005, and there is an ongoing process for reducing the sulfur-content in Diesel fuels.

When was the Bureau of Energy Environmental Affairs created?

The Bureau of Energy Environmental Affairs (DGAAE) started operations on March 26, 2004, when the measures for the commencement of its operations were adopted. For this reason, we are celebrating our sixth anniversary, although the norm for its creation was issued in July 2003.

How do you plan to celebrate this anniversary?

From the very first year, we established a tradition of celebrating the anniversary by giving technical lectures. We think it is appropriate to make a pause in our activities, to discuss with the participants of energy related activities about significant topics identified in our daily work, for the best application and understanding of the standards. For this purpose, we invite national or international experts to deliver lectures on these topics, and we

establish a panel composed of representatives from the related companies, NGOs, Universities and Native Federations to comment on these lectures.

These events have addressed topics on soil contamination, social responsibility, strategic environmental assessment, and proposals on Environmental Quality Standards for soils. This year we are suggesting a technical conference on the "Disposal of Drilling Cuttings in the Jungle". We would like to count on an International Consultant for this event, and we have requested funds from the Training Resources Management Committee (CAREC).

What can you say about energy matrix changes? Does the goal consist of reaching a 33% of petroleum, 33% of renewable energies, and 34% of natural gas?

The General Bureaus of Electricity and Hydrocarbons are currently designing all the promotion mechanisms to make more use of renewable resources, and, especially, to use our energy resources in a rational and effective way.

As you know, several years ago, when comparing the production vs. Peru's energy reserves, it was obvious that we were using more of a type of energy that was less abundant in our country: crude oil; for this reason, we prioritized the decision of developing natural gas. In this second stage, we have to evaluate the development of other energy sources, such as hydroelectric, eolic, solar and biomass energy, among others. For this purpose, we must always take into account the technical, economic and environmental aspects.

Are companies related to this sector concerned about environmental issues?

Yes, nowadays the company that is not concerned about the environment proves that it does not have any social responsibility. Companies must care about the environment for the sake of ethics; besides, through its environmental protection regulation for energy and hydrocarbon related activities in force since the 1990s, the applicable legislation enforces the compliance with these standards. Because no environmental statutory framework existed before that time, the largest environmental liabilities in hydrocarbons were generated in the 1970s, unfortunately creating a bad image for the hydrocarbon activity. Nevertheless, the new Environmental Protection Regulation for Hydrocarbon Activities prohibits the discharge of production waters into surface water bodies, such as rivers, seas and lakes; and we have been able to improve hydrocarbon sector standards, countering the population's fear that water, the main element of life, could be affected.

What are the sanctions applied to a company that does not comply with environmental standards?

OSIGNERMIN (the Supervisory Board for Investment in Energy and Mining) has set a scale of fines and has its own criteria for determining the sanction, which may even include cancelling the activity. OSIGNERMIN supervises the compliance with these standards.

What can you say about hydrocarbon internships for the Amazon region?

In the last ten years, we have developed internships in hydrocarbons in the Amazon region; their contents and methodology have improved, and they have been decentralized to Tarapoto and Pucallpa. The purpose of these internship programs is to provide interns with tools to adopt their own decisions and give advice to their communities.

These internship programs are currently emphasizing the knowledge of mathematics, language, computer skills, accounting, structure of the state, citizen rights and duties, hydrocarbon activities, natural resources, sustainable development, environmental monitoring of hydrocarbon activities, citizen participation, environmental studies, corporate social responsibility and preparation of project profiles. Of the two and a half months of the internship, this last topic is developed during fifteen days; in this way, the interns may learn to identify the needs of their communities, and, under their own perspective, they may suggest project profiles to meet them.

During the last two years, we have expanded the internship program to the farming communities in the highlands located in the neighborhood of hydrocarbon transportation and exploration activities.

To date, we have trained 261 members of Amazon region communities from Amazonas, Loreto, Ucayali, San Martín, Pasco, Junín, Madre de Dios and Cusco, as well as 59 members of farming communities in the highlands from Puno, Cusco, Ayacucho and Huancavelica.

What are the other upcoming projects for the Bureau?

We want to update our regulatory framework in accordance with the new regulation of the Law on the National System of Environmental Impact Assessment, reinforce the dialog mechanisms with the population, improve the regulation on citizen participation in electricity generation activities, and prepare an internship program in electricity related activities. Above all, it is necessary to communicate on the topics of electricity generation. We hope there is a possibility for raising the funds to carry out this internship.

Would you like to give a message to the concerned companies?

It is necessary that we continue discussing the purpose of the standards and their improvement, so that energy related activities may be carried out within a sustainable development framework.