

Seminar Cycle ATACAMA-LÍPEZ

2nd Seminar –

Sustainability in the ATACAMA Region: a future that compromises three countries

After the conferences of the first seminar of the Series Atacama-Lípez, which happened in June 2014 in Salta, Argentina, on "water as a scarce and necessary resource. Challenges for its sustainable use", the participants met once again in August. In San Pedro de Atacama, Chile, the discussions of the second seminar were characterized by the topic **"production models and water resources for the region's development: the challenges of economic growth with environmental sustainability"**.

The third and last seminar will be held in Bolivia this year. It's going to close the seminar series of KAS-ACEP with focus on the challenges of local policies for sustainable human development in the region Atacama-Lípez.

The event was attended by prominent political actors and specialists of three countries (Argentina, Bolivia and Chile), who discussed the economic development in the region of Atacama.



Opening by Felix Dane, Director of Konrad Adenauer Foundation and the Regional Program on Climate Change, Environment and Energy Security in Latin America, Karina Marzano, Project coordinator; Holger Haibach, Representative of Konrad Adenauer Foundation in Chile; Daniel Cardozo, Secretary General of the Civil Association for Population Studies (ACEP) and Eduardo Ildefonso, representative of the municipality of San Pedro de Atacama.

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The authorities greeted the participants and explained the regional program and the procedure of Seminar Series Atacama-Lípez, organized by the Konrad Adenauer Foundation and the Asociación Civil de Estudios Populares (ACEP). “The dialogue between the regions of Atacama, regardless of frontiers, irrespective of countries, shows that climate realities are the same for everyone. Let us show what we can do, working together in solidarity”, invited Karina Marzano, in her speech of welcome.



Mauricio Lisa, Director, Institute of Social and Environmental Policies ACEP (Argentina).

“Globalization is a complex process, and the aspects of globalization are affecting or determining us as a society.” Thus began the first dissertation by Mauricio Lisa, director of Institute for Social and Environmental Policies of ACEP. In his presentation on “Economic Growth vs environmental sustainability from the point

of view of the doctrine of Christian humanism”, Lisa said “ the time of globalization defines the times of finance, economics and technology – but not properly define the times of environmental impact and poverty”. To build an economy with values and models of economic development that is environmentally sustainable, it is necessary not only to build new economic models, but also to change the economic mentality of society, in reference to how to apply sustainable policies. Economic growth is the engine of economic development, but there has to be considered concepts of clean production, eco design and producer’s responsibility.

“The triangle of lithium and the risk of environmental disaster in the Atacama-Lípez region”. This was the theme of the presentation of the Bolivian anthropologist Ricardo Calla, held in the same panel on economic growth versus environmental sustainability. Calla explains that lithium is essential to the electric field - manufacture of batteries, cell phones, rechargeable batteries for cars, buses – and that has become a potential key factor to replace hydrocarbons. Therefore, it may help against climate change in

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the world since the creation of lithium batteries is expected to replace fossil fuels. The lithium triangle covers Argentina, Bolivia and Chile in the Atacama region-Lípez. Mining is very important there, but a lot of water is needed to extract the minerals. This poses serious risks to fauna and flora and to agricultural production, due to the huge water demands; and to the people of the region, because it can lead to water shortages.

According to Calla, another important topic for the region is the quinoa. Quinoa has negative impacts on traditional land. It must be grown in dead earth (inert) - not in the traditional land - because it soaks out all the water and minerals and kills the agricultural land. The quinoa produced in Bolivia is not consumed there, because it is very expensive - in 2013, the price of quinoa was \$ 19 per pound; today is \$ 26 per pound. With a high demand and high prices, the quinoa should be produced from these countries which have great amounts of inert earth. But it should be a sustainable production. For example, now, they are producing quinoa in areas that typically served for growing food for the llamas. However, the faeces

of llamas are used to fertilize the inert Atacama desert land and therefore allowing the production of quinoa. Thus, the unconscious production of quinoa in areas of food production for llamas destroys the land, thus destroying its own fertilizer.



The anthropologist Ricardo Calla, Ex Minister of Indigenous Affairs and Native Peoples (Bolivia).

The next panel discussed the current production development and its environmental sustainability. Gustavo Venegas, Director of Communication and Dissemination of Democracy and Community Centre (Chile) talked about "regulation of glaciers and social, economic and environmentally sustainable development: a pending challenge."

According to Venegas, Chile has the

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largest amount of the world's glaciers. Glaciers hold 75% of the fresh water in the world, acting as a reserve of fresh water in times of little rain, and therefore it should be preserved. However, climate change and the greenhouse effect have reduced the volume of glaciers - sea level grew 1.8 cm per year, but in the last 21 years, this rate increased to 3 cm per year. Enemy of glaciers is also the production system. Mining uses glacier water during drought periods, so that the regulations should be expanded to protect glaciers. However, in Chile, there exist a lack of legal definition of glaciers and predictions for their use.



Gustavo Venegas, Director of Outreach and Communications CDC (Chile).

Then Guillermo Espinoza, Executive Director of the Centre for Development Studies (Chile), spoke about "Climate change, wetlands and development: Strategic Challenges". Wetlands (rivers, lakes) are places where the population is concentrated. The swamps are a source of life.

Models of the University of Chile show that we are going to have an increase of temperature at the area of Arica and Iquique of 2-3 degrees. Climate change causes fewer rainy days, but with greater intensity, which is reflected in changes of flora and fauna.



Guillermo Espinoza, Executive Director of CED (Chile).

Climate change is not perceived as a real threat, which is why it doesn't get the attention needed. According to Espinoza, in general the persons responsible for public policy are more worried about the effects of climate change that may arise, a part of the impact on climate change they are causing through their actions.

All presentations were followed by discussions among the participants, so that the interaction was derived in real and substantive proposals.

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Diego Arramayo, coordinator of Environment, San Pedro de Atacama



Senator Eduardo Maldonado (Bolivia)



Angela Cañupan (Chile)



Miguel Nuñez, Mayor of Pica (Chile)

The next panel was shared by Guillermo Snopek, Provincial Member and Vice President of the Provincial Legislature of Jujuy (Argentina) and Prof. Elvio Garzón also Jujuy. Snopek talked about "impacting the productive activities and the preservation of water quality in Jujuy".

"Any activity means modification and has an impact." Snopek recognizes that mining is very

important in the region - also cattle ranching. However, due to effects on environment and population, the state should intervene in this activity. Mining and agriculture consume large amounts of water and cause pollution. The issue must involve the society and universities to raise awareness, warns the legislator. The impact of corporations on the water should also be controlled.

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Guillermo Snopak, Deputy Provincial, vice president of the Provincial Legislature of Jujuy (Argentina).

Complementing the previous exhibition, Prof. Garzón spoke about "biophysical-chemical analysis of aquatic systems." ¿What is in the water? And in which quantities? It is necessary to understand the features to manage this scarce resource better.



Prof. Elvio Garzón, Jujuy (Argentina).

The first day of the second seminar Atacama-Lípez was finishing. Ing. Rizzuti Carlos, Vice-President of the Asociación Civil de Estudios Populares (ACEP), closed the first day and invited the participants to reflect on the information received

over the whole day.

At 10 o'clock began the second and final day of this seminar. This time, the opening was in charge of the Chilean National Deputy Patricio Vallespín (PDC) about the "rational use of water and climate change: new challenges for economic development." He proposed a very interesting point of view: "the need of forming a social and ecological market economy".

With the resources we have in the world and the ongoing population growth, the system will collapse in 2080-2100. Global poverty will not diminish in the future. Moreover, no country is satisfied with the policy conditions. According to the congressman, the problem of incomplete democracy also affects the Kyoto Protocol, which still is not being fulfilled. Climate change will continue to evolve. We have to reduce its effects. The solution necessarily requires an ethic of sustainability: we are responsible for the following generations and for a good ecosystem. That's why we need new models of governance relating to water resources.

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Patricio Vallespín, Deputado Nacional PDC (Chile).

So, after almost all presentations of politicians, engineers and technicians, participants were developing ideas and sharing experiences about models which are used in different parts of the region.

The final part of the seminar was open to the public and had the participation of the Mayor of San Pedro de Atacama, Sandra Berna Martinez, followed by the presentation of the Sub-secretary of the Chilean Ministry of Environment, Jorge Cash.



Sandra Berna Martinez, Mayor of San Pedro de Atacama and Felix Dane, Director of the Konrad Adenauer Foundation on Climate Change, Environment and Energy Security in Latin America Regional Program.

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The mayor acknowledged that the interexchange between Argentina, Chile and Bolivia is very important. She said that in San Pedro de Atacama, the population is suffering because of climate change - heavy rains which did not happen before, as well as flooding. The municipality has no department of the environment or agriculture, because the community is very small. However, due to the importance of environmental issues to his people, the city wants to become the archaeological capital of Chile committed to solar energy.

Jorge Cash, representative of the Chilean Ministry of Environment, spoke about the agenda of the Ministry, which is complete, ambitious and covering the issues discussed at the seminar. Among other things, the subject of glaciers is a commitment of the President of the Republic, which seeks to hold a bill to protect glaciers. Despite the lack of a conceptual framework, the regulatory framework already exists. Without a doubt, it lacks political will to develop laws that do not affect the mining industry but also protect the glacier, so further economic growth is possible. The Min-

istry will do everything possible to proceed with the realization of this law.



Sub-secretary of Chilean Ministry of Environment, Jorge Cash.

Felix Dane, Director of the Regional Program; Karina Marzano, project manager; Holger Haibach, Representative of the Konrad Adenauer Foundation in Chile and Daniel Cardozo, General Secretary of ACEP participate in the closing of the seminar and encouraged hosts as well as participants to reflect on everything learned in the first two seminars, that in the third and last, held in Bolivia, it is possible to achieve concrete results and solutions for the region Atacama-Lípez.



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Thanks by the representative of Konrad Adenauer Foundation of Chile, Mr. Holger Haibach.



Photo of the participants and speakers.



Photo of organizers of Seminar Series Atacama-Lípez, Sandra Berna Martínez, mayor of San Pedro de Atacama, Miguel Nuñez, mayor of Pica and Patricio Vallespín, Chilean National Deputy.

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Activities in Santiago

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On August 19th, Mr. Pablo Badenier, Minister of Environment of Chile, met with a committee of KAS-ACEP to present the activities on environmental issues developed in collaboration by these institutions.



Meeting with the Minister of Environment of Chile, Mr. Pablo Badenier

On August 20th, 2014 an institutional meeting was held at CEPAL, Economic Commission for Latin America and the Caribbean of the United Nations. At that time, representatives of KAS and ACEP presented the activities of the Regional Program Climate Change, Environment and Energy Security in Latin America, especially the Project organized together with ACEP for the region Atacama-Lípez. Through this, we learned more about the activities of CEPAL and were able to discuss possibilities for future cooperation.



Meeting at CEPAL, United Nations, Division for Sustainable Development and Human Settlements Development – Jose Luis Samaniego, Director of Division; Luis Miguel Galindo, Head of Climate Change Economic Unit; and Jimmy Ferrer Carbonell, Economic Affairs Officer. Santiago, Chile, on August 20th, 2014.

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San Pedro de Atacama is a small village located in one of the many oases which are founded in the *Altiplano* of the second region of Chile. Its geographical area is located in some of the highest peaks of the Andes. Once home of the Atacama culture, today it is counting approximately 2.500 residents. Nowadays, its great importance is because it is considered to be the archaeological capital of Chile, besides the extreme of its geographical surroundings, privileged due to the beauty of its landscapes and its blue sky.

<http://www.sanpedroatacama.com/pueblo.htm>

