



**COLEGIO DE INGENIEROS DEL PERU
CONSEJO NACIONAL**

TRA. 0373-15/N

**SUMMARY REPORT OF ATTENDANCE AT THE TWENTIETH SESSION OF THE
CONFERENCE OF THE PARTIES (COP 20) AND TENTH SESSION OF THE
CONFERENCE AS VOLUNTARY OBSERVERS ON BEHALF OF
THE WORLD FEDERATION OF ENGINEERING ORGANIZATIONS-WFEO**

Attending Volunteer Members:

Mr. Arbel DÁVILA RIVERA
Ms. Enedia Graciela VIEYRA PEÑA
Mr. Segundo E. REUSCHE CASTILLO

Type of Participation:

Observer Member-NGO

On behalf of:

World Federation of Engineering Organizations-WFEO

Description of Participation:

We attended the Conference from Monday 8 to Friday 12, December 2014 as Accredited **Observer** Members according to the internal regulations of the Conference of the Parties, which establishes and enables attendance as Observers to Non-Governmental Organizations.

As observers, we were not allowed to attend Party debates or executions of agreements for which a special accreditation was needed; therefore, our work focused on the following:

- i. Establishing relations of interest
- ii. Understanding the work tendencies starting with conference techniques
- iii. Attending press conferences and discussion forums
- iv. Joining in with thematic interest groups
- v. Gaining knowledge on development projects and programmes for reduction of greenhouse gas emissions
- vi. Successful work experiences on climate change
- vii. Gaining experience of intergovernmental structural models

Summary of Events Attended

A. Raising Climate Cooperation to a New Level: Incentives and Alliances for Transformative Action

Event organized by German Watch and the Wuppertal Institute for Climate, Environment and Energy. During said event, debates took place on work models and intergovernmental structures to achieve permanent changes. The group discussed necessary incentives for such a purpose and proposals linked to climate financing and cooperation incentives.



COLEGIO DE INGENIEROS DEL PERU CONSEJO NACIONAL

Speakers: Dirk MESSNER, GDI-DIE Lukas HERMWILLE, Wuppertal Institut Lutz Weischer, Germanwatch Nina NETZER, Friedrich-Ebert-Stiftung Jennifer MORGAN, of IRG.

B. Changing Climate in Mountain Region: how countries are coping and planning long-term response

Event organized by the United Nations, during which the challenges of the combat against climate change in mountain regions were highlighted, as well as personalized approaches as developed by countries involved. The event also underlined in what way certain vulnerable mountainous countries are combating climate change with innovative solutions. It is estimated that climate change will cause changes in temperature, rainfall and will reduce the amount of snow and glaciers. In the case of Peru, it is a well-known fact that climate change will speed up the retreat of tropical glaciers in the Andes. It will also affect rainfall patterns; will cause an increase in climate instability as well as extreme weather phenomena.

Speakers: Peru Antonio MONTENEGRO, Nepal (MOSTE), ICIMOD, Representatives of the WFP.

C. Protecting Health, Combating Climate Change

Event organized by the United Nations, during which debates were held on programme initiatives on recovery from health problems related to climate as well as to carbon emissions. Estimates were presented on health care expenditure related to the management of carbon emissions and on other opportunities to maximize the health benefits in a future, low in carbon emissions.

Speakers: Lead: WHO with contributions from others/ members: IMF, OECD, Health Ministries for Peru and France

D. Implications of the Energy-Efficiency Gap for Reducing Greenhouse-Gas Emissions

Event organized by Harvard University and the ZEW-Centre for European Economic Research. The discussion was based on research about the '**Gap in Energy Efficiency**', the apparent difference between the expected types and measures for adopting Energy Efficiency Technology. The panellists showed the consequences and implications of this gap in Climate Change Mitigation and the immediate need to face them.

Speakers: Richard NEWELL, Duke University; Robert STAVINS, Harvard University.

E. Looking forward: REDD+ post 2015

Event organized by the United Nations: heads of the FAO, UNDP and UNEP. Reducing Emissions from Deforestation and Forest Degradation (REDD+) is a mechanism whose aim is the acknowledgment of the ecosystem coal storage service provided by forests and which serves as an incentive to replace those practices which generate processes of degradation and deforestation of forest cover with alternatives which enable the reduction of greenhouse gases linked to changes in the use of soil. Results and observations on the first five years of the UN-REDD Programme and the Climate Summit



COLEGIO DE INGENIEROS DEL PERU CONSEJO NACIONAL

were presented and work perspectives were suggested for the next five years during the 2016-2020 timeframe. The importance of multilateral organizations and the UN-REDD programme as guarantors and cooperation agencies was also highlighted.

F. Cities & Climate Change: Opportunities for Collaboration between Cities, Policy-Makers and Business

In the same way cities are striving, companies and politicians are taking measures to face climate change. This event specifically discussed climate action taken by Latin-American cities. It is based on climate and hydrological data publicly disclosed via the CDP by 46 cities in Latin-America, as well as on the work of the KAS.

Speakers: Paul SIMPSON, CEO, CDP Representative of the Konrad Adenauer Stiftung, Paul KRISMAN

G. The Economics of Low Carbon Cities: Exploring the Opportunities for and Limits of Green Growth

Event organized by the University of Leeds and by the Centre for Low Carbon Futures.
Authors: Andy GULDEN, Sarah COLENBARNDER, Faye MCAULLA, Andrew SUBMANT, Niall KERR, Paul SAKAY. Stephen HALL.

H. Introduction of the National Adaptation Geo-information System (NAGIS) Project

Event organized by the National Adaptation Centre and the Geological and Geophysical Institute of Hungary

I. Adaptation and Climate Resiliency Tools

Event organized by Climate Interactive

J. Global Water, Climate and Development Programme (WACDEP)

This event organized by Global Water Partnership presented the work experience of the WACDEP programme of the observatory of the Sahara and Sahel Deserts on the contribution to climate change through developing economies from the perspective of food security. Work models were presented which would combat salinization processes in the management of wells, animal breeding and agricultural proposals.

K. Amazon in Destruction: Adaptation, Women and Indigenous Peoples

Event organized by the Regional Association of Indigenous Populations and Environment Rights and Natural Resources. Research situates the importance of indigenous land and Protected Natural Areas in a global context linked to the storage of forest carbon. However, the analysis does not take into account aspects such as biodiversity and socio-cultural elements which are key factors in conservation and development efforts, as well as defining the strategic role of the indigenous woman.



COLEGIO DE INGENIEROS DEL PERU CONSEJO NACIONAL

L. Press Conference: Sierra Student Coalition (CYCAN) US and Chinese Youth for Climate

In this event, the inspiring success of the US and Chinese Youth Movement for Climate was demonstrated. This encourages nations to take more rigid measures on climate. These measures range from disinvestment in fossil fuels to the transition to clean energy. It was a demonstration of the way in which youth is tangibly tackling climate change, especially in the countries mentioned.

Interviewees:

Balance, Topics and On-going Discussions

The lectures, experiences and discussions observed during the week of December 8 to 12 reveal the following tendencies which are described below:

1. It is important to reflect and promote the progress made in terms of climate change from the point of view of a process which starts with identifying key actors, looking to implement actions which respond to requirements of information and raising awareness, involvement and strengthening of abilities, all of which contribute to the adequate achievement of the role that must be played when faced with climate change. A second part of these processes is the generation of data through the development of climate, biophysical and economic studies as well as climate profiles. This must be translated into Local Plans or Strategies for Climate Change with climate scenarios which enable us to identify possible impacts which incorporate investment portfolios and financing strategies.
2. The new topic of “**climate security**” is appearing, and it requires all countries to progressively substitute their energy systems based on coal, oil and gas with others such as wind, solar and geothermic energies as well as those that release little carbon into the environment. This requires a developed and explicit theoretical model.
3. There is no talk about current financial mechanisms or global financial systems which would contribute to climate security, that is to say, the facilitation of financial systems which would support sustainable development; in other words, economic growth that is not socially excluding but rather, environmentally rational. This should channel funds for environmentally safe energy.
4. The viability of carbon capture and storage must be tested on a large scale as it is in RED++ projects and as a topic when faced with large investments aimed at finding new fossil fuel reserves without considering the detrimental cost for environmental wellbeing. While less time and resources should be spent on capture and storage, we must warn of future regulatory change which would dismiss fossil fuels and their emissions for those energies with low carbon emissions. Additionally, in REDD +, the **Lima Information Hub** has been launched: it is a database which collects the results obtained, the National Plans or Strategies, as well as summaries on safeguards for data systems and reference levels.
5. The US and Chinese student conference presented data informing that China uses 4 billion tons of carbon each year. While most of the principal world economies try to control energy costs and emissions, they still have not discovered the avalanche in terms



COLEGIO DE INGENIEROS DEL PERU CONSEJO NACIONAL

of costs linked to inefficient heating. According to the UN, 70% of all energy consumed in cities is used for heating and refrigeration networks, while searching for efficiency models, such as these.

6. Global warming and climate change are a source of concern for many countries and institutions. The impacts of Global Warming are also localized: in this context, the Amazon Rainforest as the largest tropical forest on the planet plays a very important role for the environmental services it provides: its role in the conservation of biodiversity, in the water system and in the capture of excess CO₂ in the atmosphere.

7. The protection of the environment, its balance and its diversity reaffirm the protection of quality of life.

8. The policies of Amazon countries for a sustainable Amazon Rainforest must be very clear and precise: the conservation of the forest, putting into production the colonized and unproductive lands and not resorting to felling of trees in order to implement agriculture through forest concessions. In the case of Peru, we recognize the progress gained through the signature and ratification of international treaties and agreements as part of a joint effort for many years and from global initiatives to preserve biodiversity, forests and indigenous cultures. It is incomprehensible that the State through its institutions should not change the conditions which allow tree felling on a massive scale and provoke subsequent problems. If global warming is not stopped in time, we will have no cultural heritage left to protect or present to be preserved or to be seen in the future. It is apparently only wishful thinking that the increase in temperature should not exceed 2°C this century, since the current rate of increase shows a possible 4 to 5°C and if drastic decisions are not made, the measures which must be taken could focus on **declaring a state of emergency on the planet** and putting into place effective and concrete measures.

9. It is important to mention that Peru has reiterated that it is working towards reducing the impacts of climate change and that it is carrying out activities aimed at raising social awareness in order to preserve the environment. As an Andean country it emphasizes the use of clean energies, in spite of effects caused by population displacement. It is important to highlight the existence of an internal agenda including the execution of ten commitments for sustainable fishing by the Government and entrepreneurs of the sector. A multi sector pact also exists to fight the illegal commercialization of forest resources whereby the aim is that by 2021 all wood produced at a national level should only be of legal origin.

10. Furthermore, it is necessary and most important that all state and non-state actors carry on identification, widening the scale and permanent assessment of the impact of new actions with a high potential for mitigating climate change.

From Conversations with the Participants:

- On December 12, a consensus still had not been reached regarding the responsibilities of each country in terms of climate change. Developing countries pointed out that the world powers such as the United States are the major causes of global warming and that, for this reason, they should take on greater responsibility. On the other hand, emerging countries such as China and India must also make vast efforts, given that their industries are based on carbon energy and are therefore highly polluting.

- Developing countries also demand that emerging countries act in order to reduce harmful gas emissions.



COLEGIO DE INGENIEROS DEL PERU CONSEJO NACIONAL

- Developing nations demand that financial help should be included for poorer nations whose populations have suffered and will suffer from impacts of climate change.
- No concrete agreement was reached by developed countries with regard to reduction of emissions of greenhouse gases.

Regarding what is mentioned in the press.

- Peru published a plan on Climate Change (CC) containing 77 proposals to reduce carbon emissions and in which are listed a series of projects aiming to avoid the increase by 40% of our carbon dioxide by 2050. Said proposals were designed by a Peruvian Government work group looking to build the technical and scientific basis, as well as the capacity to explore the feasibility of “**clean**” or “**low in carbon**” development. These proposals consist of a series of measures for mitigating or reducing CO₂ emissions. In order to carry them out, investment will be needed of over S/. 7 billion, the majority of it for energy and transport sectors.

It must be noted that we participated in the opening meeting attended by the current President of Peru Ollanta HUMALA, by the Former President of Mexico Felipe CALDERÓN and also by the President of the Intergovernmental Panel on Climate Change, Rajendra PACHAURI. It was highlighted that it is crucial to comply with the existing obligations of the United Nations Framework Convention for Climate Change and the Kyoto Protocol.

On the other hand, four presidents of the Pacific Alliance made a declaration urging developed countries to carry out a significant **capitalization of the Green Climate Fund**, by complying with their obligations, among which is that of increasing financial support. This document was signed by the leaders of the Republic of Chile, Michelle BACHELET JERIA; the Republic of Colombia, Juan Manuel SANTOS CALDERÓN; Mexico, Enrique PEÑA NIETO; and the Republic of Peru, Ollanta HUMALA TASSO.

The commitment shown by the Presidents of Peru and Colombia must be highlighted as they committed to contributing US\$ 6 million each to the Green Climate Fund.

The Presidents showed their commitment to sustainable management of natural resources among which agriculture, forests, water and common interest to use the intergovernmental panels of the United Nations.

Chilean President Michelle BACHELET stated that development and combat against climate change are not mutually exclusive. If we do not reach an agreement in Paris, it is possible that we will be too late and we have no right to fail.

The Peruvian Minister for Environment, Manuel PULGAR-VIDAL, stated that with the approval of the text “**Lima Calls for Climate Action**”, the Lima COP20 was declared closed, by unanimous approval of the 194 State Parties. This call creates the roadmap to the COP 21 in Paris.



COLEGIO DE INGENIEROS DEL PERU CONSEJO NACIONAL

Recommended Actions and Follow-up:

1. Given the existence of a weak articulation link between the concepts of climate change and risk management, as an organization, we need to help to integrate both concepts and develop operational models which in practice are complementary.
2. The promotion of the conceptual development of a theoretical model to apply the concept of “**climate security**”, on the basis and structure of water, food and energy security is required.
3. Given the strategic implication surrounding the conservation of the Amazon Rainforest, as engineers, it becomes strategic to foster the necessity for countries to keep supporting territorial management strategies which address climate change. It is important to help to maintain existing conservation commitments and to promote an intercultural dialogue between State and civil society, especially with indigenous populations. One must take into account that the group of indigenous populations has specific guidelines facing with climate change.
4. A line of action, which, as an organization, we must strengthen, is the development of Plans or **Local Strategies for Climate Change**, taking into account that the effects of climate change are local, and ideally, support design of projects that include an investment portfolio and effective financing strategies.
5. The **WFEO** must develop and implement state of the art work for all proposals, starting with the framework of engineering from the most significant experiences of their members in their own countries, taking as a thematic reference the development of technologies to reduce CO2 emissions, implementation of clean technologies and renewable energies, development of projects for Reducing Emissions from Deforestation and Forest Degradation (REDD++) the fostering of protected natural areas, etc.
6. With the COP 21 in Paris in mind, the execution of agreements regarding financial support for poor countries must be encouraged. Particular emphasis must be placed on maintaining the framework of common yet differentiated responsibilities including commitment, revision and financing.
7. Among future recommendations, the following can be mentioned:
 - Normalize the process of organization members of the WFEO before an event of this type, insofar as establishing work orientations on the specific subject.
 - Suggest that the organizer should show topics and concrete actions developed regarding climate change.
 - Respect the protection provisions of the surroundings in which the COP20 is to be held, a detail that may contradict the mission of the conference; this has occurred.



COLEGIO DE INGENIEROS DEL PERU CONSEJO NACIONAL

Exhibit – Documents

Relevant information for discussion of topics presented.

1. European Climate Foundation (ECF) Key Findings on The Fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC)
See CISL website www.cisl.cam.ac.uk/ipcc
 - a. Climate Change: Implications for Buildings
 - b. Climate Change: Implications for the Energy Sector
 - c. Climate Change: Implications for Transport
2. RESPOND Cop 20 Lima Magazine. 2015 Responding to Climate Change
www.rtcc.org
3. Monthly Bulletin Centre for Environmental Law, CISOL “Legal Rights Towards the Lima COP 20, Peru 2014” www.cr2.cl
4. UNESCO, International Hydrological Programme, “Climate Change Impacts on Mountain Regions of the World” (2014) 102 pages.
5. Assessment of the Impacts of Climate Change on Mountain Hydrology: Development of a Methodology Through a Case Study in Peru
At <http://www.sei-international.org/publications?pid=2117>
6. Institute of the Common Good, “Amazon: Carbon Density, Indigenous Territory and Protected Areas” RAISG/COICA/WHRC/EDF
At: www.raisg.socioambiental.org
7. Another Problem with CO2 “Environmental Implications and Risk of Acidification of Ocean Products due to Carbon Emissions” at
www.youtube.com/watch?v=55D8TGRsl4k ask for copies from kdav@pml.ac.uk.
Plymouth Marine Laboratory (www.pml.ac.uk)
8. Inter-Ethnic Association for the Development of the Peruvian Amazon, “Indigenous Perspectives on the Deforestation of the Peruvian Amazon: Causes and Alternatives” At: www.aidesep.org.pe www.forestpeoples.org. Mail: aidesep@aidesep.net.pe
9. Inter-Ethnic Association for the Development of the Peruvian Amazon, “The Territorial Demands of the Indigenous Amazon Populations of Peru” At: www.aidesep.org.pe email: aidesep@aidesep.net.pe
10. United Nations Systems Chief Executives Board for Coordination (CEB), “How the United Nations System Supports Ambitious Action on Climate Change” p 34
11. Global Sustainable Electricity Partnership “Galápagos San Cristobal Island Wind Project 2007-2013: Partners Highlight Achievements from Ecuador’s First Large-Scale Wind Project” At: www.globalelectricity.org/galapagos
12. UNCCD. United Nations Convention to Combat Desertification, “Land Degradation Neutrality. Resilience at Local, National and Regional Scale”, Website: unccd.int email: secretariat@unccd.int
13. The Indigenous Populations Curb the Climate Crisis CMNUCC, “Proposals of the Indigenous Populations for the COP 20”, AIDSESEP-COICA. 47 pages.
14. Global Water Partnership Central America, Guide for the Application of Integrated Water Resources Management (IWRM) at Municipal Level. At web site: gwpcentroamerica.org
15. E8. Decreasing Reliance on Fuel and Enhancing Renewable Energy-Based Electrification in the Small Island State of Tuvalu: The Tuvalu Solar Power Project. At www.e8.org. email: e8generalsecretariat@hydro.qc.ca



COLEGIO DE INGENIEROS DEL PERU CONSEJO NACIONAL

16. DAR. Good Will, Few Possibilities: Donations for National Contributions for Climate Change). At www.dar.org.pe
17. World Meteorological Organization. El Niño/Southern Oscillation, cpa@wmo.int.
18. CONAP: The Confederation of Amazonian Nationalities of Peru: Facing Climate Change. At: info@bmu-cbc.org.pe.
19. UNEP: Our Planet: United Nations Environment Programme. Climate for Life. At: www.unep.org/ourplanet.
20. Ministry of Environment, Forests and Climate Change, Government of India: India's Progress in Combating Climate Change, Briefing Paper for UNFCCC COP 20 Lima Peru. En secy-moef@nic.in, alavasa@nic.in.
21. Bridget Burns and Joanna Patouris (WEDO): Gender and Climate Change: Technical Guide for the Lima COP 20, Peru: Decisions and Conclusions of the United Nations Framework Convention on Climate Change (UNFCCC): Existing Mandates and Entry Points for Gender Equality. At www.juxapo.com.
22. IEA: International Energy Agency: "Key World Energy Statistics". At www.iea.org.
23. Otra Mirada (Another Look): Analysis and Political Proposals "The Threat of Climate Change". At: www.otramirada.pe.
24. Climate Law and Natural Resources – DAR.
Email: dar@dar.org.pe
Website: www.dar.org.pe
Publications: Mega - Mega-Development Projects in the Amazon Rainforest
25. OXFAM is an international confederation of 17 organizations working in more than 90 countries worldwide for change, to build a future free of the injustice that is poverty.
www.oxfam.org
26. SOUTH CENTER
Permanent intergovernmental organization of developing countries.
Email: south@southcentre.org
Website: www.southcentre.org
27. IFOAM (International Foundation for Organic Agriculture)
The international umbrella organization of organic agriculture movements worldwide
Bonn – Germany
headoffice@ifoam.org
www.ifoam.org
28. International Centre for Tropical Agriculture – CIAT
www.ciat.cgiar.org
29. GLOBAL CANOPY PROGRAMME
WWW.globalcanopy.org
30. FAO-UNEP Sustainable Foods System Programme
Sustainable Food System (SFS) is a food system that delivers food security and nutrition for all in such a way that the economic, social and environmental bases to generate food security and nutrition for future generations are not compromised
www.fao.org/ag/ags/sustainable-food-consumption-and-production/es
31. Friends of the Earth International, Amsterdam.
www.foei.org
32. United Nations Environmental Programme (UNEP)
Patents and Technologies to Mitigate Climate Change in Latin America and the Caribbean.
Division of Environmental Law and Conventions on Climate Change



**COLEGIO DE INGENIEROS DEL PERU
CONSEJO NACIONAL**

www.unep.org

33. Climate Change Impacts on Mountain Regions of the World
The Other Problem with CO₂)

The Threat and Environmental Consequences of the Acidification of the Ocean

www.uab.cat

34. Generation of Statistically Downscaled Climate Change Scenarios in Peru.

www.senami.gob.pe

35. The Acidification of the Ocean: Connecting Science, Industry, Politics and the Public

www.oceanacidification.org.uk

aa@pml.ac.uk

36. Andean Glaciers: the Necessity of a Cross-Cutting Agenda

www.can-la.org

37. World Future Council Foundation

info@worldfuturecouncil.org

38. Investing in Rural People – IFAD
IFAD Climate Change Strategy (English)

www.ifad.org/climate/strategy/e.pdf

39. IFAD Climate Change Strategy (Spanish)

www.ifad.org/climate/strategy/s.pdf

40. The IFAD-GEF Advantage: Partnering for a Sustainable World

www.ifad.org/climate/gef/advantage_web.pdf

41. **World Food Programme**

Climate Risk and Food Security: Analyses of Climate Impacts on Food Security and Livelihoods in Ethiopia

42. MAP: Climate Change and Food Insecurity

<http://documents.wfp.org/stellent/groups/public/documents/newsroom/wfp229182.pdf>

43. Global Water Partnership South America

www.gwpsudamerica.org

44. India's Progress in Combating Climate Change
Ministry of Environment, Forest and Climate Change

www.mnre.gov.in

45. Creating Universal Access to Clean, Safe and Affordable Transport for All.

www.slocat.net/resultsframework

46. Climate Protection in Figures

Facts, Trends and Incentives for German Climate Policy

www.bmub.bund.de/english/service/publications

47. European Union Experiences with Latin America on Climate Change, Renewable Energies and Water

[Http://bookshop.europa.eu](http://bookshop.europa.eu)

www.onu.org.pe/cop20

48. The UN and the World Climate Change Conference /COP20
European Commission

www.ec.europa.eu/europeaid

49. www.euroclima.org



**COLEGIO DE INGENIEROS DEL PERU
CONSEJO NACIONAL**



Alongside the Minister of Women and Vulnerable Populations During the COP20
Mr. Arbel Dávila, Minister Carmen Omonte, Ms. Eneida Vieyra, Mr. Segundo Reusche



Ms. Eneida Vieyra, Mr. Segundo Reusche showing their public commitment to the environment