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Minutes of the 4th regional meeting of RALCEA

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ACRONYMS

Acronym	Definition
AECID	Spanish Cooperation Agency/Agencia Española de Cooperación Internacional para el Desarrollo
ANAM	Ministry of the Environment of Panama
AQUASEC	Center of Excellence for Water Security
CODIA	Conferencia de Directores Iberoamericanos del Agua
CETA-UBA	Centro de Estudios Transdisciplinarios del Agua (CETA)
FCH	Fundación Chile
FICH-UNL	Facultad de Ingeniería y Ciencias hídricas de la Universidad Nacional del Litoral
FP(s)/PF(s)	Focal Point(s)/Punto focal(es)
IAI	Inter-American Institute for global change research
IDB/BID	Inter-American Development Bank/Banco Interamericano de Desarrollo
IST	Instituto Superior técnico de Lisboa
IWRM	Integrated Water Resource Management
KC(s)/CE(s)	Knowledge Centre(s)/Centro(s) de Excelencia
LA WETnet	Latin American Water Education and Training Network
LAIF	Latin American Investment Facility
PTA(s)	Panel Técnico de Apoyo de los directores del Agua (CODIA)
RWB/BH	Regional Water Balance/Balance Hidrico working group
SIAGUA	Sistema Iberoamericano de Información sobre el Agua
SMCB/MADC	Stakeholder Analysis Mapping, or Stakeholder Mapping and Capacity Building/Mapeo de Actores o Mapeo de Actores y desarrollo de capacidades working group This group modified its name in Chile 2013.
STP-CODIA	Permanent Technical Secretariat/Secretaria tecnico Permanente del CODIA
UNAL-IDEA	Universidad Nacional de Colombia
UNESCO-IHP/UNESCO-PHI	International Hydrological Program of UNESCO/Programa Hidrológico Internacional
UNICAMP	Universidade Estadual de Campinas
UPC	Universidad politécnico de Cataluña
WG(s)	Working Group(s)/ Eje(s) tematico(s)
WQS/CAS	Water Supply and Sanitation/Calidad del Agua y Saneamiento working group

SUMMARY: Main Results

The 4th regional meeting was mainly dedicated to share and analyse the results, their impacts on water resources management and collect lessons learnt of the activities implemented during 2010-2014 in the 3 thematic working groups: Stakeholder Mapping and Capacity building, Regional Water Balance and Water Quality & Sanitation. This was also the opportunity to continue the dialogue between policy and scientific/technical sides. This dialogue has been extended to the LA Water directors of the CODIA through the participation of RALCEA to the XV CODIA meeting. Finally, this meeting allowed to progress toward the sustainability of RALCEA through active discussion with RALCEA partners. JRC will continue to assure the Technical Secretariat and Coordination of the network (duration to be defined).

The main results of the 4th RALCEA regional meeting are:

- The presentation of all implemented activities during 2010-2014 to all RALCEA members, RALCEA partners (IAI, AECID, Fondo del agua, UPC, AQUASEC, the technical panel and the Secretariat of the CODIA)
Presentations are available on <http://www.aquaknow.net/en/ralcea-centros-de-excelencia-en-america-latina/document/4a-reunion-regional-ralcea-nov-2014-presentaciones>
- The identification of the strengths and weaknesses of RALCEA to get lessons learnt (2010-2014) followed by a discussion on the improvement of RALCEA (ANNEX III).
- A concrete synergy and official recognition of the RALCEA network (ANNEX IV) as complementary tool to the formation program of the CODIA.

Point 4 of the XV CODIA statement:” Recognize RALCEA as a network of centres of excellence which could complement and canalize the development of knowledge and tools in support to the Training program of the CODIA”.

- The preparation of the next round of activities by the RALCEA members with open discussion with partners, in particular with IAI, AQUASEC, AECID, LAIF, Fondo del Agua, and CODIA. The institutions showed their interest in collaborating with and funding RALCEA activities. The following steps are:
 - RALCEA will present capacity activities proposals in line with the 3 action lines of the “Plan de Transferencia, intercambio y gestión del conocimiento de AECID: Comunidad temática de Conocimiento Agua y Saneamiento” to AECID by the first trimester 2015 (Contact: Monica Corrales).
 - IAI committed itself to participate to co-funding RALCEA capacity building activities (to be discussed later with the implementation of these activities Contact: Marcella Ohira)
 - LAIF program committed some funds to support RALCEA regional meetings (2015-2016) and some activities in line with its priorities (Contact: Francisco Gonzalez)
 - A joint program of training CODIA-RALCEA is agreed in principles and should be developed in 2015 (Contact: Concepción Marcuello).

RESUMEN: Resultados Logrados

Este cuarto seminario fue dedicado principalmente a compartir los resultados y las lecciones aprendidas de las actividades realizadas durante los últimos 4 años en las tres áreas temáticas principales: Mapeo de Actores, Variabilidad del Balance Hidrológico Regional, Calidad del Agua y Saneamiento. Fue también una oportunidad para continuar el diálogo entre los actores de investigación y las políticas científicas nacionales reforzado, este año, por la sinergia con los directores del Agua de latín América (CODIA -sesión de trabajo junta). El seminario permitió también de debatir y organizar la sostenibilidad y las perspectivas de la red RALCEA por los próximos años con los socios de RALCEA e instituciones regionales. Para ello, el JRC continuará en una primera fase (a definir) a asegurar las labores de Secretariado Técnico y la Coordinación General de la red.

Los resultados principales de la reunión son:

- La presentación de todas las actividades implementadas durante 2010-2014 a todos los miembros RALCEA, el CODIA (incluyendo el Panel técnico de Apoyo y la Secretaria Permanente), y demás socios de la red (IAI, AQUASEC, UPC, AECID, Fondo del Agua). Las presentaciones están disponibles <http://www.aquaknow.net/en/ralcea-centros-de-excelencia-en-america-latina/document/4a-reunion-regional-ralcea-nov-2014-presentaciones>
- La identificación de las fuerzas de RALCEA (2010-2014) pero también los puntos a reforzar en la organización e implementación de las actividades RALCEA.
- Una sinergia concreta y un reconocimiento de la red RALCEA como instrumento de apoyo al programa de formación del CODIA.

Punto 4 de la declaración de acuerdos del XV CODIA: “Reconocer a RALCEA como una red de centros de excelencia que permitiría complementar y canalizar el desarrollo de instrumentos y conocimientos en apoyo del programa de formación del CODIA”.

- La preparación del segundo ciclo de actividades de RALCEA por los miembros, discusión con los socios, en particular, con IAI, AQUASEC, AECID, LAIF, Fondo del Agua y CODIA. Estas instituciones demostraron su interés en colaborar y apoyar ciertas actividades propuestas. Los pasos siguientes son:
 - RALCEA va a presentar propuestas de capacitación a la AECID (Contacto: Monica Corrales) integrándose en las 3 líneas de acción prioritarias del “Plan de Transferencia, intercambio y gestión del conocimiento de AECID: Comunidad temática de Conocimiento Agua y Saneamiento” en los primeros meses del 2015.
 - IAI confirmó su voluntad de contribuir a financiar/cofinanciar actividades de capacitación (a discutir más en detalles con la implementación de estas actividades, Contacto: Marcella Ohira)
 - El programa LAIF confirmó su apoyo a la reunión anual RALCEA (en 2015 y 2016) y algunas actividades correspondiendo a sus prioridades de trabajo (Contacto: Francisco Gonzalez)
 - El programa de capacitación junto con el CODIA fue aprobado en principios y tendrá ser desarrollado concretamente en 2015 (Contacto Concepción Marcuello).

1. Background

In Latin America, the availability of water resources varies widely between and inside countries. In parts of the region, the current patterns of water use are unsustainable. Many countries in the region are vulnerable to recurring natural disasters from floods and droughts, a situation that will get worse with climate change. Economic growth will require more water for different sectors (agriculture, industry, tourism...) and it will be a challenge to allocate water resources across sectors while safeguarding environmental flows.

There are a number of knowledge institutions which have a high level of technical and scientific expertise, as well as a long experience in the water sector. These institutions have traditionally worked independently, isolated from each other, and without a direct link to the policy level. This project aims at improving the water management governance, first of all by developing capacities at technical level in order to impact the sector decision making at the political level.

The RALCEA project was identified within the framework of a *Pilot Budget Line for innovative actions in Water Resources Management towards international cooperation*, and it is part of the Thematic Programme for Environment and Sustainable Management of Natural Resources including Energy – Water Management in Developing Countries in favour of Latin American Region.

Key information

- On the 18th of December 2009, the European Commission approved the project (Decision 2009/021-910) in support to RALCEA network of knowledge centres of excellence. It has a duration of 4 years starting in mid-2010, is being implemented in the Latin American Region. The total budget is of € 2.5 million where € 2.25 million have been granted by the European Commission. No cost extensions have been authorized until the 15 August 2015.
- The direct beneficiaries are : i) the scientific/technical staff of Knowledge Centres; ii) the policy-making level, i. e., practitioners, officials and decision makers at governmental level, basin agencies, local level etc... The indirect beneficiaries are the population of the LA countries as a whole, which would benefit from an increased coordination and capacity in the water sector.

Objectives

The specific objective of the Project is to foster information based policy, promoting south-south cooperation in capacity development in the water sector by supporting the development of a network of knowledge centres.

The RALCEA Project supported the establishment of the LA network of knowledge centres in the water sector. For that purpose, a plan of activities, to better coordinate the research work of the knowledge centres and to reinforce its orientation towards the support to the policy decision level, has been implemented. A common strategic plan for capacity development has been settled starting from the needs expressed by governmental representatives (National focal points). Emphasis was put on governance-oriented training sessions addressed to technical staff as well as in technical training sessions addressed to policy-makers, in order to foster mutual understanding. Therefore, this development of capacities in the water sector, has led to a better and sustainable water resources management and pushed for information-based policies, coherently with the objectives of the EU Water Initiative in the region.

Implementation

DG JRC (Institute of Environment and Sustainability, Unit H01) handles the implementation while DG EuropeAid is responsible of the project. DG JRC has played, since capacity development (technology oriented) is one of its fundamental assets, an important role in terms of knowledge management, technical support and technology transfer, also through other parallel actions in this sector (EuroCLIMA Initiative in Latin America, AquaKnow and the African networks of Centres of Excellence). During the first semester of 2010, a mobilisation phase (contractual and coordination arrangements) took place, before the start of the operational period from mid-2010 to the end of 2014. After a setup/organisational phase in 2010-2011 and the work plan's collaborative design in 2012, the different thematic activities related to Water Quality and Sanitation, Stakeholder Mapping and Capacity Building and Regional Water Balance, were implemented in 2013-2014.

2. 4th regional meeting's objectives

RALCEA hold a regional meeting each year that allows to make a point on the activities, to adjust the strategy/planning of RALCEA work plan if necessary and to ensure the communication between the 3 current thematic working groups of RALCEA: Stakeholder Mapping and Capacity Building (SMCB), Water Quality and Sanitation (WQS) and Regional Water Balance (RWB).

The objectives of the 4th regional meeting was twofold:

- Reinforcing the interaction between the CODIA and RALCEA thanks to the synchronization of both meetings (RALCEA regional meeting and the XV CODIA)
- Learning and sharing lessons learnt from the first cycle of implementation of RALCEA activities.

These general objectives can be detailed as follow:

- Presenting the activities by thematic working groups to all RALCEA members and partners,
- Collecting and sharing the lessons learnt from this 1st cycle of activities RALCEA (2010-2014) and their impacts on the water resources management in Latin America.
- Continuing and facilitating the dialogue between the Focal points, Centres of excellence and institutional partners of RALCEA to pursue the identification of needs of the water sector in Latin America.
- Allowing a direct dialogue with IAI, UNESCO-PHI, EU, BID, AQUASEC, LAIF, STP CODIA, to implement potential cooperation and stimulate RALCEA sustainability.

All presentations made are available online on [aquaknow.net: http://www.aquaknow.net/en/ralcea-centros-de-excelencia-en-america-latina/document/4a-reunion-regional-ralcea-nov-2014-presentaciones](http://www.aquaknow.net/en/ralcea-centros-de-excelencia-en-america-latina/document/4a-reunion-regional-ralcea-nov-2014-presentaciones)

3. Minutes of the 4 regional meeting

The meeting is organized in two main parts: 1. thematic sessions to review and discuss the work done by working groups and 2. Plenary sessions (with joint session with CODIA) on RALCEA sustainability. The agenda of the 4th regional meeting and the participants list are available in ANNEX I

DAY 1: 17 NOVEMBRE

Noel Trejos, Director of the River Basins Integrated management Unit of the Ministry of the Environment of Panama (ANAM) opened the 4th regional meeting of RALCEA followed by a welcoming word from Cesar Carmona Moreno from the Water Resources Unit of the Joint Research Center.

Roberto Galan from ANAM presented, as host country, the main water resources management issue in Panama. Indeed, Panama is facing conflicts between water uses, in particular in river basins where hydro electrical infrastructure are implemented, and has to manage various threats on its aquifers.



Roberto Galan presenting the main Water related issues in Panama.

1.1. International institutions session (10.30 -13.00/14.30-15.00)

Objective: This session was dedicated to present the institutions working in the regions to all members of RALCEA, providing their interest and priorities in the region regarding water management.

LAIF and Fondo del Agua

Francisco Gonzalez, representative of the Spanish Cooperation (AECID) and of the Inter-american Development Bank (IDB), presented two funding mechanisms: the Latin American Investment Facility (LAIF) and the Water Fund (Fundo del Agua)

File: LAIF_REGIONAL_Nov 2014_RALCEA_Francisco_Gonzalez.pdf

The LAIF funds come from the European Commission program named “Promover la adaptación al Cambio Climático y la Gestión Integral de los Recursos Hídricos en el sector de Agua y Saneamiento en América Latina en el marco del Fondo de Cooperación para Agua y Saneamiento (FCAS). The LAIF investments target 1) the improvement of basic social services, 2) the environmental protection, adaptation and mitigation of climate change and, 3) the

energy efficiency, renewable technologies, transport and communications. The water and sanitation sector is therefore a priority domain that can include these three aspects. The LAIF funds are implemented by the AECID and where technical assistance is mainly handled by the IDB.

The Fondo del Agua (1.500 million US\$) is allocated on national country basis and aims at contributing to the extension of the water access, the extension of sanitation access through sustainable and integrated water resources management and, at reinforcing governance promoting transparency and stakeholder participation.

The presentation ended up with the potential collaboration with RALCEA in terms of:

- Common interest in IWRM, Water supply and Sanitation in particular in rural areas.
- Capacity building and tools to be developed to support LAIF program.
- Development of project proposals of interest from the beneficiaries.

It is stressed the LAIF looks at funding activities that bring measurable impacts on the ground.

Discussion : This presentation raised a high number of questions and high interest from the RALCEA members with the intervention of Mario Schreider (FICH-UNL, Argentina), Jose Joaquin Chacon (FP Costa Rica), Marta Paris(FICH-UNL, Argentina), Luis Espinoza (FP Honduras), Crowmell Alva (FP Peru), Alejandro Conza (Agualimpia), Magdalena Guimac (FP Peru), Claudia Galleguillos (FCH, Chile), Yaset Martinez (CIH, Cuba), Ulrike Broschek (FCH, Chile).

The questions focused on how RALCEA can interact with LAIF/Fondo del Agua and how to include RALCEA activities proposals (projects Canicula/OCLA/INDICA/YPACARAI, and capacity building activities) into these programs to combine efforts and funding (application procedure).

Inter-American Institute for Global Change (IAI)

Marcella Ohira, Director of the Capacity Building program of the Inter-American Institute for Global Change (IAI) presented the objectives and funding opportunities of the IAI.

File: IAI_RALCEA_Nov2014_Marcella_Ohira.pdf

The IAI works to develop scientific knowledge, research and capacity building program in the following themes in America:

- Understanding the climate change
- Studying ecosystems, biodiversity, land, and water uses
- Studying the changes of the Atmosphere, the oceans and freshwaters
- Including human aspects and developing applications

The IAI provides funds as research grants and supports capacity building activities (seminars and courses). The synergy with RALCEA can be high in particular because of its regional view and common interest in capacity building.

Discussion: The discussion focused on how to collaborate with the IAI to implement capacity building activities of RALCEA, designed from LA country demand. This debate was already handled in the previous seminar in Peru in June 2014. Please refer to the minutes and presentations available here: <http://www.aquaknow.net/en/ralcea-centros-de-excelencia-en-america-latina/document/taller-mapeo-de-actores-junio-2014-lima>

AQUASEC

Robert Varady from AQUASEC presented the activities of the virtual Centre of excellence that focuses on Water security, therefore a common theme with RALCEA.

File: AQUASEC_RALCEA_Nov2014_Robert_Varady.pdf

AQUASEC manages two main projects: 1) **Aquascapes** that supports the Innovative Science and Influential Policy Dialogues for Water Security in the Arid Americas and the International network 2) **International Water Security Network (IWSN)** that involves three universities from 3 continents. The Aquasec is rather an umbrella under which stakeholders working on water security can implemented projects therefore, a collaborative framework with multiple actors.

Discussion: Luis Tavares (IST, Portugal), Ulrike Broschek (FCH, Chile), Crowmell Alva (FP Peru), Hector Maureira (CAZALAC, Chile), Jose Joaquin Chacon (PF Costa Rica) Francisco Gonzalez (AECID)

To the question “how to maintain an active communication between institutions that are not spread over the LA region?”, Robert Varady answered that the various networks and universities working within Aquasec are following similar purpose. Therefore, their management is easier.

Hector Maureira shared that Chile set up an observatory of Droughts, initiative of interest related to water security. Jose Joaquin Chacon asked for explanation on drought management methods that are of interest of Costa Rica. Francisco Gonzalez asked details on the work done on groundwater recharge.

1.2. Stakeholder Mapping and Capacity Building (SMCB) session (15.00 – 18.30)

This session aimed at presenting the seven capacity building activities implemented and gathering the lessons learnt and impacts on the water sector in LA. The reporting in Spanish is available in ANNEX II.

The two presentations successively made by Mario Schreider and Marta Paris (FICH-UNL Argentina) summarized:

- the objectives, the methodology, and the activity overview;
file : Presentación_1_eje_mapeo_actores_Mario_Schreider.pdf
- the different products generated and next steps foreseen.
file : Presentación_2_eje_mapeo_actores_Marta_Paris.pdf

Feedback and experiences were then expressed directly by the PFs involved in this work (to whom the activity was delivered). Hereafter a summary:

- *Jose Joaquin Chacon (Costa Rica):* Costa Rica was involved in a capacity building activity on groundwater management that is like others countries in the region (i.e Panama) an important issue. It allowed to make a case study on the river basin Nimboyores, Guanacaste. This work benefited to local stakeholders through capacity improvement in term of monitoring and management of aquifers. This experience and knowledge gained can be used in other basins facing similar issue.
- *Emma Quiroga (Bolivia):* She expressed her satisfaction regarding the implementation and benefit get from the activities handled in the framework of the SMCB, even she was one of the skeptics at the beginning. She called for the amplification of this type of actions and more ambition in developing such capacity building program.
- *Cromwell Alva and Magdalena Guimac (Peru):* After a presentation of the way the Autoridad Nacional del Agua (ANA) is implementing the IWRM (through river basin plan), Peru expressed its strong commitment in terms of capacity building reinforcement and saw the advantage to design the necessary courses starting from

the needs, as RALCEA do. The multi-criteria method for managing water resources at river basin scale, subject of the course implemented in Peru, was found appropriate, fostering transparency. RALCEA as a network was a valuable tool to bring knowledge to the local level and has already committed itself to finance at 100% another capacity session.

- *David Roman (Colombia)*: Colombia benefited from the implementation of a course on the same previous multi-criteria IWRM method that responds to the need to integrate all stakeholders (social participation) in the water management process. Following this activity, an observatory oriented to conflicts has been set up.
- *Roberto Romero (Mexico)*: Mexico had identified the need to reinforce capacity and make efforts toward the explanation of technology choice and use to provide water supply and sanitation. The seminar had a great success, therefore the follow-up steps will include the : 1) setting up of a comity for organizing the 2nd seminar on the same topic 2) the dissemination of the material developed (through a CD) 3) integration of more countries and stakeholders.
- *Betzabe Atencio (Panama)*. The activity implemented in Panama focused on water resources management in a river basin (Chiriquí river) where the impacts of hydroelectricity infrastructure generate conflicts. The method and the seminar aimed at involving more the actors (in particular farmers) to find solutions and better manage resources at river basin level. The ANAM has committed additional funds to apply the methodology learn during the training activity to other river basins. **File:** *RALCEA_Nov2014_ANAM_Betzabe_atencio.pdf*



Panel of Focal Points who participated in the SMCB working group

From left to right: Emma Quiroga (Bolivia), Jose Joaquin Chacon (Costa Rica), Cromwell Alva and Magdalena Guimac (Peru), Roberto Romero (Mexico), David Roman (Colombia) , Betzabe Atencio (Panama)

As the meeting was host in Panama, the actors involved in this SMCB activity detailed the work done to manage the different uses of water in Chiriquí River and their experience regarding the capacity building session implemented.

The company in charge of the hydroelectric infrastructure – EISA presented the project of hydroelectric equipment of the river, their impacts on the ecosystems and the local farming community (farmers), as well as the solutions found.

file: *EISA_ANAM_RALCEA_Nov2014_rio_Chiriquí.pdf*

Magdaleno Quintero, president of the farming community of Monte Lirio in Panama, first expressed his preoccupation toward the increase of dry periods and their impacts on the working practices and crop's production. He also detailed the role and action of the farmer's community in the reforestation of the upstream part of the Chiriquí basin to limit soils erosion and run-off of precipitation. He finally highlighted the importance of capacity building reinforcement of community leaders.



EISAM hydroelectric company presenting the infrastructure in Chiriquí river (Panama)



Mr. Quintero, president of farmer's community of Monte Lirio explaining the reforestation actions

Discussion:

Luis Tavares (IST Portugal) mentioned that the use of a pragmatic model can support the management of conflicts related to water resources uses. The IST has developed one that could be appropriate.

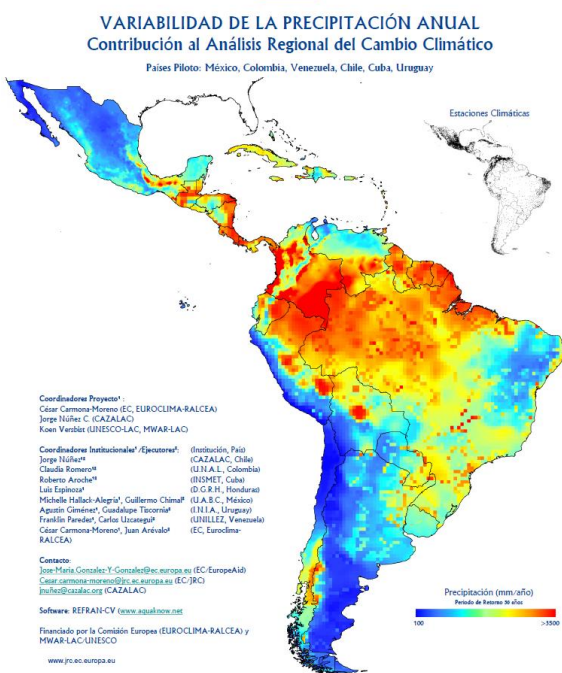
DAY 2: 18 NOVEMBRE

This day was dedicated to the other two thematic working groups of RALCEA: Regional Water Balance and Water Quality and Sanitation.

2.1 . Regional Water Balance (RWB) session (09.00 – 11.00)

Hector Maureira Cortes from CAZALAC, the coordinating institution presented the objectives, the activities implemented and the main results of this working group (2010-2014). A significant part of the stakeholders working on the Water balance were not able to attend as they were attending the seminar “Manejo de Sequias” from the 19-21 November. However, outputs of the working group could have been presented and discussed with the participants.

file: Presentacion_1_CAZALAC_Hector_Maureira.pdf



The objective of this working group is to analysis the variability of the water balance components at regional and national level. This work aims at complementing the calculation of the water balance made by the UNESCO-PHI. These activities has also included necessary workshops to enable technical staff to produce the frequency maps.

Up to date, a regional map and 16 national maps has been delivered related to precipitations ‘variability.

Several remaining challenges need to be addressed:

- One challenge resides in how to impute missing data.
- The regionalization process supposes to detect non coherent meteorological stations.

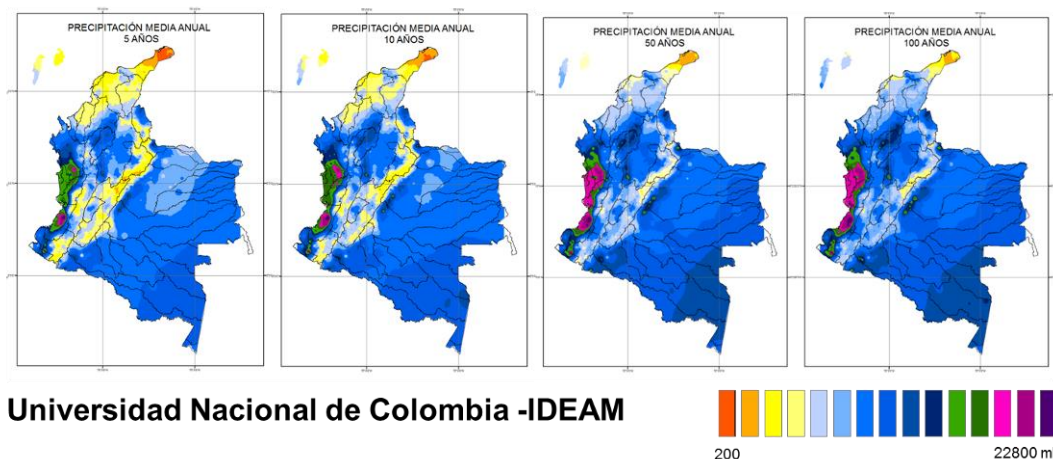
- The relationships between precipitation data and temperature, ozone change, evapotranspiration etc.... should be analysed.
- The probabilistic and short term scenarios of climatic changes can be developed and supported water management in sensitive river basins (This activity has already been initiated with the workshop in Chile 19-21 November).
- This method needs to be applied to pilot river basins: Chile (Huasco), Perú (Chancay, Huaral y Chillón) and Colombia (Neusa).

The L-moments method has been already implemented in Bogota River for Precipitation and temperature variables as presented by Claudia Romero (Universidad San Tomas, Colombia).

File: Presentacion_2_BALANCE HIDRICO_Claudia_Romero.pdf

The frequency maps have been delivered for five return periods, 5/10/50/100 years, for both precipitations and temperatures. The REFRAN-CV software guidance to compute maps is under translation in Spanish. NEUSA sub basin has been identified to be a pilot for further modeling.

MAPAS DE PRECIPITACIÓN MEDIA ANUAL PARA 4 PERIODOS DE RETORNO



In addition to this work on variability, the RWB group has identified the phenomenon of Canícula as a priority issue to be addressed in Central America. Jose Mario Carbajal (PF Honduras) presented the “Canícula” issue in this region, detailing the impact of this dry period in the different country. A project is under development to study how to set up a monitoring system of this phenomena, which is a necessary step to define appropriate mitigating measures.

File: La_Canicula_Central_America_Jose_Carbajal_Honduras.pdf

The main impacts of the occurrence of such dry periods during summer are: i) the increase of diseases affecting crops and rural population, 2) the change in farming practices and reduction of crop productivity 3) the multiple impacts on ecosystems that affect the forest, soils erosion, water scarcity and water quality in dry period...

Discussion:

Noel Trejos (ANAM Panama) mentioned that there is a working plan on droughts for Central America (Plan de Acción de la Estrategia Mesoamericana de Sustentabilidad Ambiental, available here:

http://www.proyectomesoamerica.org/joomla/images/Documentos/EMSA/Plan%20de%20Acci%C3%B3n%20EMSA_FINAL.pdf). The two initiatives can be complementary.

Magdaleno Quintero (Farmers community president in Panama) expressed his concern as farmer of this increase of dry period describing their impact on his work and crop production. Magdaleno Quintero (Presidente de la comunidad de productores de Monte Lirio en Panamá) expresó su preocupación en referencia al aumento del período de sequías con su impacto en el trabajo así como en la producción. El Sr Quintero habló de la importancia de hacer un proyecto de capacitación a los líderes comunitarios en la conservación de los recursos hídricos y conservación de suelos.

Ulrike Broschek (FCH, Chile) highlighted the potential of wastewater reuse in agricultural that can mitigate the impacts of dry period on production. Another mitigation option is the groundwater recharge. These measures are to be considered in an integrated water resources management.

Luis Tavares (IST, Portugal) mentioned that there are technics to recharge artificially the aquifers to alleviate impacts of dry periods.

2.2. Water Quality and Sanitation session (11.00 -12.30/14.00-16.00)

Claudia Galleguillos and Ulrike Broschek (FCH, Chile), coordinator of the working group water supply and sanitation, presented 3 project proposals and 3 training/case studies defined and implemented during 2010-2014.

File: CIERRE_Calidad_Agua_RALCEA_Ulrike_Broschek_Claudia_Galleguillos.pdf

The work plan designed by both PFs and CEs included the design of 3 regional projects from interest of the countries and 3 courses on concrete cases in 3 LA countries. The principles for these developments were:

- Developing project that are replicable in the region,
- Ensuring the sustainability of the actions implemented,
- Ensuring the representativeness of the stakeholder involved,
- Working with cross-disciplinary team and associating capacity building.

The projects developed are INDICA, OCLA, YPACARAI, the case studies and associated courses were implemented in Bolivia, Guatemala and Panamá.

The futures actions reside in the implementation of six projects: OCLA /INDICA/YPACARAI/REUSO/HUELLA HIDRICA/WATERCLIMA where funding is for some of these projects still to be found.

PROYECTOS DE CONTINUIDAD



As for SMCB group, the PF and CE expressed their experience and feedback on this work.

Bolivia: Sistemas de tratamiento de Agua para Reuso.

The main interest of the approach taken is the attention paid to needs expressed by the population trying to fit them as close as possible. The technology chosen for water supply and sanitation should be adapted and simple as possible to ensure its sustainable use.

Emma Quiroga (Bolivia): Seeing the positive impact of the few activities done within RALCEA, the working group should amplify its activity and be more ambitious.

Cynthia Corroto (CETA-UBA, Argentina): the participants to the seminar demonstrated a great interest in understanding and taking ownership of the knowledge/tools described.

Guatemala: Herramientas para el manejo de recursos hídricos-

The seminar implemented in Guatemala aimed at analysing the case of a freshwater ecosystem under high anthropic pressure, the lac Amatitlán. The issue of collections of data related to health/status of this ecosystem and their exchange/dissemination among stakeholders was identified as a barrier to the efficient management of lac Amatitlán. With the support of RALCEA (CICESE, UNAL and FCH) the data collection and nomenclature have been adjusted. The additional output of this joint work is the confidence built between CEs and FPS involved.

Erasmus Rodriguez (UNAL, Colombia): An important output is the online broadcast of the course implemented in Guatemala that amplified significantly the number of beneficiaries.

Panamá: Indicadores Ambientales-

This activity was about knowing and learning how to measure several bio-indicators of quality/health of a water ecosystem (including groundwaters).

Ana Raquel Tuñon (Panamá): The seminar was a success and adapted at the need expressed therefore, the educational material is published and available freely on the ANAM website.

Luis Tavares (IST Portugal) highlighted that EUROPE and LATIN AMERICA face similar issues regarding surface and ground waters. Therefore, in term of environmental law, the European directives (Water directives, Nitrate directive...etc.) can be evaluated and adapted to LA region. This also stated that ground and surface water should be analyzed together. This analysis relies on the availability of representative data and time series. Based on this, the management measures can be defined to ensure the different uses of resources including ecosystem requirements. For instance, it can be proposed to implement a bio-monitoring for both surface and ground waters (BIO-AQUA).

Additional Discussion

Miguel Gomez (Argentina): The theme of wastewater treatment plant is identified as a major target for capacity building as well as the choice, use and analysis of the water indicators that allow the monitoring of the resources.

Alejandro Conza (Aqualimpia, Peru) noted that the RALCEA activities built a relationship between the PF and the CE of the same country that did not exist before as for Peru. This is also a significant output of RALCEA that leads to set collaborations beyond the framework of RALCEA.

DAY 3: 19 NOVEMBRE

This day was dedicated to discussion to next activities of RALCEA and the sustainability of the network. This included a joint session with the Panel Técnico de Apoyo (PTA) of the CODIA followed by a session for collecting feedback on the organization of RALCEA during this first cycle for its improvement.

3.1. PTA – RALCEA joint session (8.30-10.30)

The objective of this session was to present successively the capacity building program implemented by the CODIA and RALCEA mechanism and proposals in term of capacity building, to examine how to combine efforts and complementarities. The PTAs are the national technical support to Latin American Water Directors constituting CODIA Assemblée.

Concepción Marcuello of the Permanent Secretariat of the CODIA (STP-CODIA) presented the results of the capacity building program and indicated that the CODIA training program was currently in reformulation

File: SESION PTA-RALCEA_Nov2014_Concepcion_Marcuello.pdf

The courses are rather adapted to train institutional professionals of the member states (selection at 90 % using open calls) and can be given either onsite and/or online. The program implemented 54 onsite courses (2009-2013) and 20 virtual courses (2012-2013) for around 1900 people.

With the reformulation, the priority themes for capacity building of the CODIA suggested are: planning and IWRM, water security and extreme events, water supply and Sanitation.

On behalf of RALCEA, Mario Schreider described and stressed the on-demand method of RALCEA to design capacity building sessions, before summarizing training activities implemented.

File: Presentacion_RALCEA_sintesis_PTA_equipo_coordinador.pdf

The beneficiaries of RALCEA training are not only institutional staff as the target audience is defined directly by the PF requesting the course. The Pf is also responsible for bringing

appropriated beneficiaries. The training program of RALCEA counted 16 courses (2013-2014) for the benefit of around 900 people.



Joint session PTAs of the CODIA and RALCEA

Open Discussion:

Cromwell Alva (PF Peru) renewed the interest of Peru to continue in the capacity building activities and called for the coordination between CODIA and RALCEA.

PTA CODIA asked for the way RALCEA financed the training sessions and how it is organized itself. *Mario Schreider (FICH, Argentina)* explained that the seminar have been funded through a co-funding including the recipient country, RALCEA project, other actors such as UNESCO – PHI and LA WET-Net. The coordination team of each working group supported the organization and implementation of the activity.

PTA CODIA (Ecuador) saw the interest of a coordination with RALCEA that respond on concrete issues on the ground. RALCEA can be the executive arm of CODIA complementing the current formation program of the CODIA. This coordination can move forward the regional training effort through adding up funding resources.

Roberto Galan (PTA CODIA and PF Panama) highlighted the synergy and complementarities between the two programs of capacity building and is confident that a collaboration agreement will be reached at the end of the week.

Emma Quiroga (PF Bolivia) mentioned the advantages in making a joint effort: 1) the improvement of capacities is an objective for all LA countries and 2) the limitation of the transfer costs therefore an optimization of funds at regional level. RALCEA is able to include the participation of a local CE in the training program, therefore the reinforcement of local capacities at the same time (understood as national/local level with comparison to Regional/Latin America scale).

PTA CODIA (Argentina): The formation program of the CODIA is oriented to the institutional officials of the LA countries and this training basis should remain and not be replaced by RALCEA. The interaction with RALCEA can lead to enlarge the scope of beneficiaries (civil

society, farmers, schools...) and complement the CODIA program in that way. Mario Schreider stated that indeed RALCEA does not intend to replace the CODIA program but to complement it. In addition, RALCEA is a flexible organization that can adapted according to CODIA identified needs

Concepcion Marcuello (STP-CODIA) clarified that RALCEA is not going to replace the CODIA program, the objective is to combine efforts to reinforce the capacity building in LA.

Claudia Galleguillos (FCH, Chile) reminded that the Centres of Excellence of RALCEA have high qualified resources and expertise that are able and want to support the policy making in LA regional and therefore, the CODIA which represents the high policy level of Latin America. This is the main objective of RALCEA.

Marta Paris (FICH-UNL, Argentina): RALCEA is a mechanism to respond on-demand to identified needs that could also include CODIA's one.

PTA CODIA (Nicaragua) noted that both program are useful in the reinforcement of the capacities. The two can be evaluated to see how they can complement each other.

Jose Joaquin Chacon (PF Costa RICA) described the contribution and follow up of RALCEA activity in COSTA RICA where groundwater management is an issue for the government. The groundwater management issue has been included in the national plan 2015-2018 for development.

Cesar Carmona Moreno (JRC) reminded how RALCEA network was developed following the LA governments needs and highlighted the complementarities between the training program of the CODIA (solid knowledge for institutional staff) and the capacity building mechanism of RALCEA (that can be used at regional scale and also adapted to local need, including various stakeholder types).

The conclusions of the discussion are the following:

RECAPITULACION: Programa Conjunto

Temáticas:

PLANIFICACIÓN Y GESTIÓN INTEGRADA DE RECURSOS HÍDRICOS (GIRH), SEGURIDAD HÍDRICA y EVENTOS EXTREMOS, ABASTECIMIENTO Y SANEAMIENTO

RALCEA aporta: Un marco de funcionamiento basado identificación de demandas de capacitación con Centros de Excelencia. Coordinación + Red de Centros + PNFs. Áreas prioritarias de trabajo

CODIA aporta: Un marco de funcionamiento basado en la aprobación por Conferencia de Directores. Necesidades a demanda de los Coordinadores. STP-CODIA + Coordinadores de Área.

Cómo se articula la formulación del Programa anual de actividades: Figura de coordinación conjunta. Discusión en reunión anual.

Financiación: Combinada: CODIA+ Agentes exteriores

3.2. RALCEA Sustainability session (11.00-12.30/14.00-16.00)

This session was dedicated to the sustainability of the network through 1) discussion on opportunities to implement identified activities in particular with the support of AECID 2) summarizing the direct feedback from the RALCEA members asking for good points and elements to be improved.

Spanish Cooperation

Monica Corrales from the Spanish cooperation (AECID) presented the “Plan de Transferencia, intercambio y gestión del conocimiento de AECID: Comunidad temática de Conocimiento Agua y Saneamiento”.

File: AECID_CTC_RALCEA_Nov2014_Monica_Corrales.pdf

The AECID has 4 training centers in the region to support capacity building and knowledge dissemination in the region.



These centres allow the implementation of the “Plan for transparency, Exchange and Management of knowledge”. In addition, the AECID is developing a virtual centre to reinforce this network. This plan will be validated in January 2015 and will be implemented during the next 3 years.

Related to water and sanitation issue, there are three actions lines for this thematic knowledge community (COMUNIDAD TEMÁTICA CONOCIMIENTO DE AGUA Y SANEAMIENTO - described in the presentation in slides 18-52):

- IWRM
- Access to basic Water supply and sanitation
- Governance and water right

Monica Corrales invited RALCEA to present activities in the first months of 2015 fitting these three thematic lines.

Discussion:

Ulrike Broschek (FCH, Chile) asked if this plan included activities outside courses and seminar such as cases studies. It is answered that such activities could be included in that plan.

The coordinators of the SMCB working group (Mario Schreider and Marta Paris) committed themselves to submit identified capacity building to the AECID for their inclusion in the plan in due time.

Claudia Romero (Universidad Santo Tomas, Colombia) asked if this funding included also climate change and water balance as the related working group could propose a course on the new REFRAN CV software. It is answered that there is indeed a thematic line on climate variability and such activity proposal is welcomed.

Magdalena Guimac (FP Peru) highlighted that there is a capacity drain to the private sector in particular, therefore a loss investment and an endless capacity need for the state. How to limit

this issue? Monica Corrales, recognizing this issue, indicated that virtual course is maybe a way to reduce costs and optimize the funds available.

RALCEA Pros and elements to improved

A round table was done to get feedback of each participant. Hereafter the table that summaries the comments received (There was some consensus on the diagnostic with a lot of recurrent remarks). The full comments are available in ANNEX III.

Positive points	Elements to be improved
<ul style="list-style-type: none"> - the relationship and collaboration between FP and CE from the same country that didn't exist before AND with the other 18 LA countries represented. = unique mechanism/method to identify real needs and to find solutions to concrete water management issues - -The trust, friendship and feeling of common interest generated along these years => strong commitment (in time, enthusiastic representatives and in funding) <p>Therefore, High efficiency and additional funds from LA country.</p> <ul style="list-style-type: none"> - the RALCEA results: <ol style="list-style-type: none"> a) projects, training sessions, mapsetc.. that respond to the demand expressed. i.e. Appropriate people benefited from the training session b) institutional capacity building c) exchange and provision of knowledge thanks to this dialogue space created 	<ul style="list-style-type: none"> - The interaction/integration and communication between thematic groups - Reflecting and redefining if necessary the coordination (meeting between coordinators?) and the secretariat. - Expand the network with more CEs, private sector, other networks and stakeholders etc... - Enlarge the working themes (i.e coastal areas) beyond the 3 working groups - Weakness of the institutional support sometimes - RALCEA sustainability: <ol style="list-style-type: none"> a) more funding to implement more ambitious program b) Proposals and activities are not included in a clear strategy – global approach c) Including innovative design d) Improving the external communication in particular with Facebook, social networks and with Aquaknow e) Reaching the local level beyond only including local decision makers.

Questions raised:

- The formalization of the link between FPs and KCs to ensure the continuity of activities implementation?
Claudia Galleguillos highlighted that the high turnover of FPs has been an obstacle to activity progress. The formalization of the commitment of the country with (a) Centre(s) of excellence would be useful to remind the collaboration engaged when the PF is changing. It is mentioned that this kind of formalization is difficult to settle in some countries and will take for sure time (to sign agreement or something similar). This will reduce the advantage of RALCEA to have a flexible organization and therefore rapid process of implementation.
- Official Label RALCEA on nominated CE? Activities? Are we a Club?

This discussion highlighted that RALCEA is a very open network and have already included local centres in the 1st cycle of activities implemented. Bolivia already highlighted his will to integrate systematically local centre/scientific institution in all activities of RALCEA to reinforce local capacities.

Some participants reminded that an institution became a RALCEA centre of excellence according to a set of criteria, and a debate on the specificities of RALCEA CE was engaged. Some participants call for some kind of RALCEA certification.

4. Next steps

The identification of next activities has been done during 2014 by the 3 working groups. The 4th regional meeting gave the opportunity to share and discuss the implementation with RALCEA partners (IAI, AQUASEC, AECID, LAIF, Fondo del Agua, and CODIA). These institutions showed their interest in collaborating with and funding RALCEA activities. The following steps are:

- RALCEA will presented capacity activities proposals in line with the 3 actions lines of the “Plan de Transferencia, intercambio y gestión del conocimiento de AECID: Comunidad temática de Conocimiento Agua y Saneamiento” to AECID by the **first trimester 2015**.
- IAI committed itself to participate to co-funding RALCEA capacity building activities (to be discussed later with the implementation of these activities)
- LAIF program committed some funds to support RALCEA regional meetings (2015-2016) and some activities in line with its priorities.
- Following the recognition as complementary tool by the CODIA, a joint training program CODIA-RALCEA is agreed in principles and should be developed in 2015.
- The JRC will continue to ensure the secretariat and general coordination of the network.

List of Annexes

Annex I: Agenda and list of participants

Annex II: Synthesis of Stakeholder Mapping and Capacity Building session in Spanish

Annex III: Feedback from RALCEA participants.

Annex IV: XV CODIA Statement

As the Commission's in-house science service, the Joint Research Centre's mission is to provide EU policies with independent, evidence-based scientific and technical support throughout the whole policy cycle.

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