**Proposed activities ITT (**concrete activities that could connect with your activities/needs/priorities/abilities – the focus here is on proposals, not on prior achievements/activities)

**CLiMWaR-LAC**

**1. Improved integrated drought risk management**

Drought risk is defined as a combination of drought hazard and drought vulnerability. At ITT, drought risk is assessed in an interdisciplinary way looking at both, the hydro-meteorological hazard and socio-economic vulnerability at river basin scale. The hydrological system thus needs to be understood from its demand and availability side.

ITT will contribute to

* *deliverable 1.1.2* by assessing drought vulnerability and resources sustainability in river basins located in LAC countries. The analyses will be carried out in the scope of guided MSc and PhD theses as well as of research and interdisciplinary student projects. The drought vulnerability of basin populations (urban/rural) and different economic sectors is assessed based on historical drought periods and scenarios addressing socioeconomic development in the specific basin.
Key activity is to systematically guide the studies and document the results (e.g. on [www.basin.info.net](http://www.basin.info.net)).
* *deliverable 1.1.3* by developing basin specific drought indicators (hydrological, climate, vegetation, soil moisture, agricultural/demand driven) and corresponding thresholds. Suitable indices will be suggested to be applied in drought management of pilot basins

**1.2 Training**

* *deliverable 1.2.1:* training of basin scale working stakeholders and academics in drought management (Community of Practice) related to climate and water resources monitoring, tracers, modelling, information management to contribute to the suggested trainings:

1. Integration of hydrological data in near real-time from remote sensing and in situ monitors to enable a more integrated approach to continuously calibrate models for water management

2. Training on vulnerability assessment of societies and local livelihoods

3. Development of real-time drought indicators (SPI/SPEI) for climate extreme monitoring

4. Hydrological forecasting for improved water resources management in snow and ice dependent catchments

**2 Climate services**

**2.2 Resilience**

* *deliverable 2.1.1:* develop seasonal and long term water availability projections for selected river basins/watersheds and train local water managers on uncertainties and application

Identify and suggest ecosystem based drought adaptation measures (proposals in calls ERANET-LAC, IKI) for the Andean region (and tropical catchments, projects ADAPTA, TropiSeca).

**2.3 Strengthening of the community of practice on dryland management (GWADI-LAC)**

- participate in conferences, trainings and contribute to regional handbook of drought management tools

**2.4 Implementation of climate services to improve water management**

 - provide basin scale information to connect to LAC drought monitor (basin scale water balancing, project proposal GROW/BMBF)

**IHP VIII Water security**

**I - VULNERABILITY ASSESSMENT, MAPPING AND IMPLEMENTATION OF ADAPTATION STRATEGIES IN DIFFERENT MOUNTAINOUS REGIONS OF THE WORLD**

**P1:** Similarly as to the CliMWar-LAC programme, ITT will contribute by assessing **drought vulnerability** and resources sustainability in Andean river basins. The analyses will be carried out in the scope of guided MSc and PhD theses as well as of research and interdisciplinary student projects. The drought vulnerability of basin populations (urban/rural) and different economic sectors is assessed based on historical drought periods and scenarios addressing socioeconomic development in the specific basin.
Key activity is to systematically guide the studies, provide info maps for stakeholders and document the results to be used by the public and in further studies (e.g. on [www.basin.info.net](http://www.basin.info.net)).

P1, P4 and P5. identify and suggest site appropriate **ecosystem based adaptation measures** responding to hydro-meteorological risks (proposals in calls ERANET-LAC and IKI) for vulnerable Andean catchments.

Also further **research r**elated to hydro-meteorological processes in Andean catchments will be carried out for improved climate change impact studies, water availability scenario development and seasonal predictions.

**III - DEVELOPMENT OF A GLOBAL KNOWLEDGE FORUM**

ITT can contribute to such a global knowledge forum with capacity building and training measures to the addressed topics as well as e- learning and Mooc/curricular development for different target group levels. Also the translation from scientific research results in stakeholder friendly information products is one of the key objectives/activities of ITT.

Tentative titles for a 15 min presentation:

* Drought risk management in semiarid Andean catchments, demand for research and capacity building:
	1. a (+-7 min) section on achievements and prior activities relevant to the topic
	2. a (+- 7 min) proposal of joint activities related to the above described activities (research + capacity building, dissemination)
* Tools and adaptation measures to overcome droughts in Andean and tropical catchments: ITT projects and proposals