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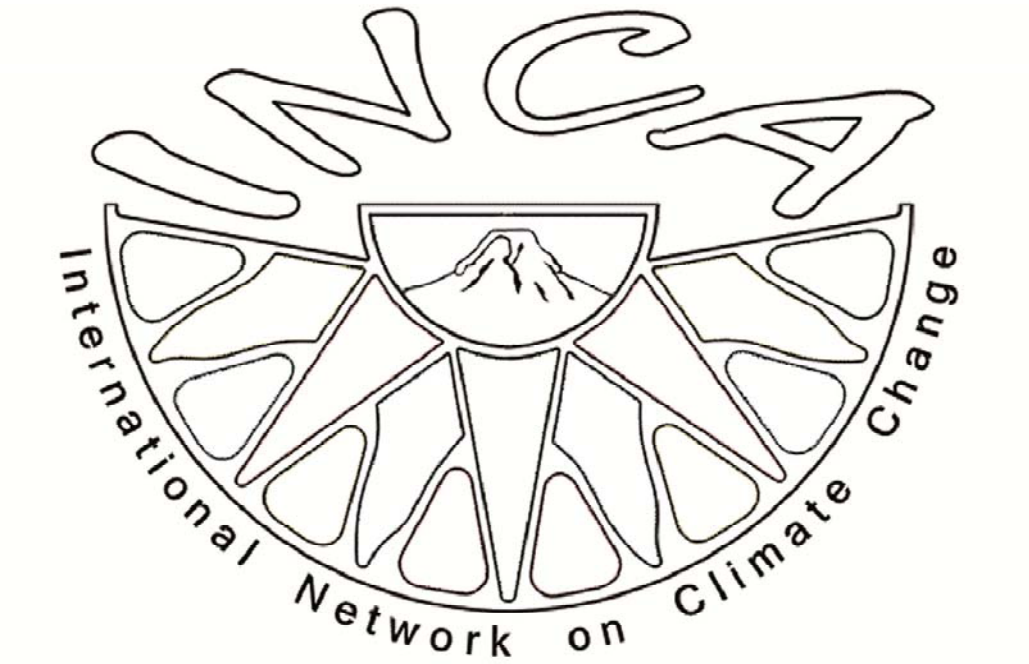

Understanding Adaptation and Mitigation Strategies of Tropical Andean People

1st Project Workshop, Tharandt / Germany 30.07. – 07.08.2011

Integration of Project & Workshop Program

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Global issue on a local scale

For people living in the tropical Andes, climatic change is not a problem of the future - it's already there. Countries like Peru and Bolivia are bearing the consequences of climate change, such as retreat of glaciers and extreme weather events, which are directly affecting crops, livestock, biodiversity, and, last but not least, increasing levels of poverty. Almost the entire agricultural sector is suffering from increasing water stress due to melting glaciers and changing precipitation patterns. The productivity, especially of small-scale agriculture production systems is threatened, and thus the income of smallholder families is at risk.

As traditional inhabitants of the tropical Andean Region, these farmers historically have had to cope with extreme daily temperatures, unpredictable weather events from one year to the next, and a diversity of environmental conditions scattered across the elevations. This has made locals aware of the recurrent diversity of climate related impacts and its consequences. Understanding these adaptations has become one of the most important focuses of research into climate change impacts and vulnerability, since it provides essential knowledge for developing and transferring strategies towards a sustainable management in agriculture and agroforestry.

Objectives

- To organize and integrate in a Research & Development oriented network of relevant stakeholders on the topic of adaptation and mitigation on climate change in exemplary rural areas of the tropical Andes
- To conduct an analysis of the biophysical and socio-economic factors that influence livelihood strategies of traditional Andean farmers and to study how these systems are being affected by climate change
- To compare case study outcomes in order to generate and typify key indicators for livelihood strategies in the tropical Andean region and to comparatively assess trade-offs between the options that enhance food and income functions (adaptation strategies) and those options that enhance the ecosystem functions (mitigation strategies)
- To elaborate models for the simulation and planning of successful interventions in farming and forestry systems in order to improve adaptation and mitigation strategies
- Scientific exchange of adaptation and mitigation strategies on climate change among local users, scientific community, state authorities, NGOs, as well as other relevant stakeholders in the tropical Andean region
- To contribute to the international debate within the UNFCCC from the bottom up to consider the needs and experiences of local stakeholders in using natural resources

Upshot

The main intention of the International Network on Climate Change (INCA) is to understand the situation of local farming and forestry systems in the tropical Andes, deriving and testing livelihood strategies for small-scale farms and indigenous communities together with local actors, scientists, experts, and students. The network contributes to transfer of technology and knowledge among all members and bridges the gap between the global discourse on climate change and local action.

Socio-economic field laboratories

INCA International Network on Climate Change

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cde centre for development and environment

AGRORURAL
PROGRAMA DE DESARROLLO PRODUCTIVO AGRARIO RURAL

giz

- existance of other related networks has to be taken in consideration
- review on studies / projects / material / methods to prevent unneccessary replication
- synergies to Biodiversity-Network

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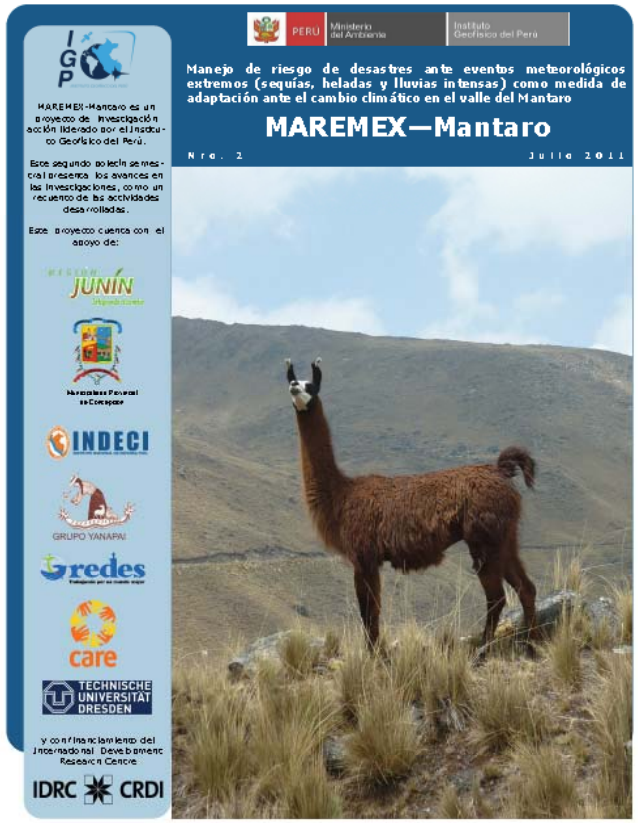
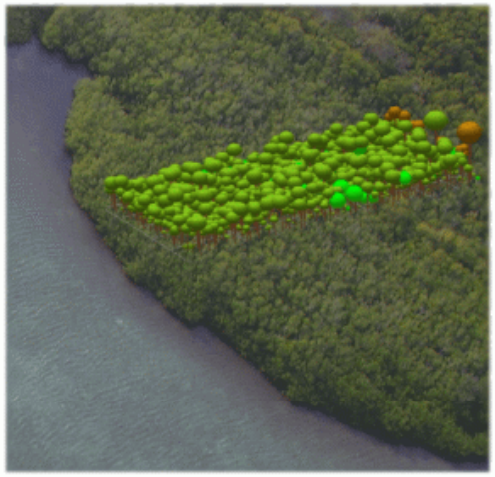


- embed research in existing frameworks
- current PhD and MSc.-Theses
- upcoming PhD and MSc.-Theses
- upcoming PostDoc research



TUD Professorship in Forest Biometrics / Systems Analysis
Prof. Dr. U. Berger & MSc. M. Vidal

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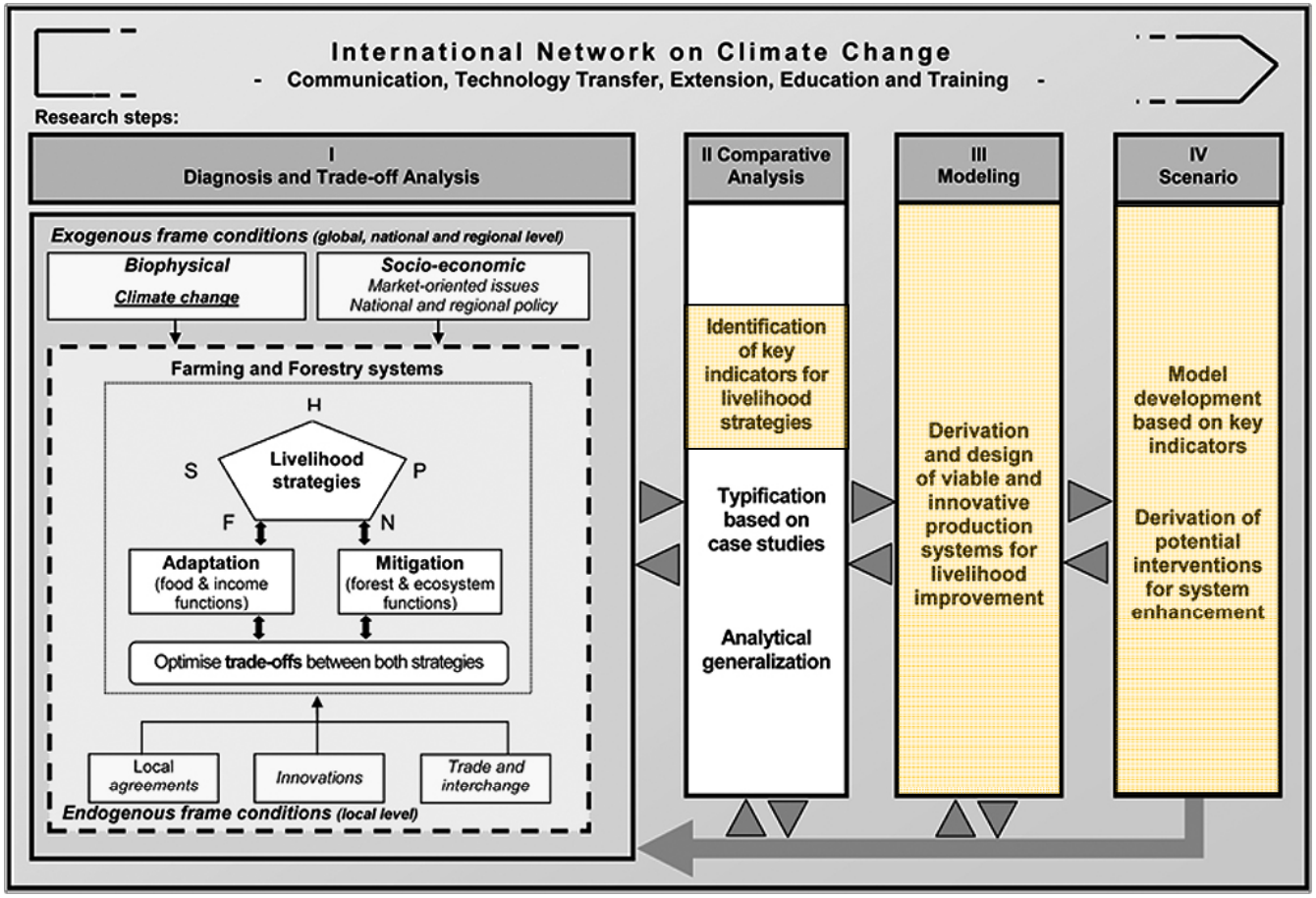

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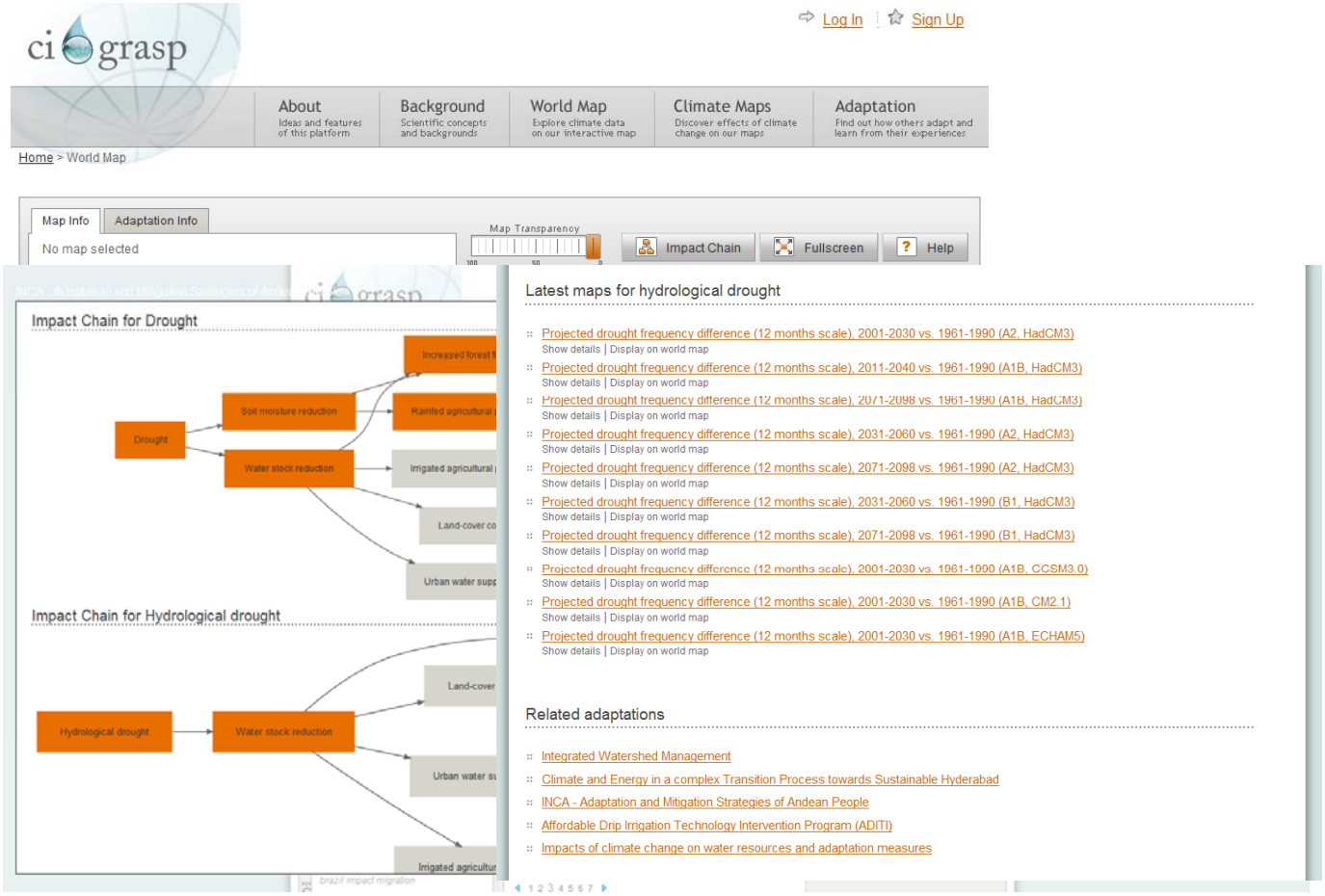
http://cigrasp.pik-potsdam.de/



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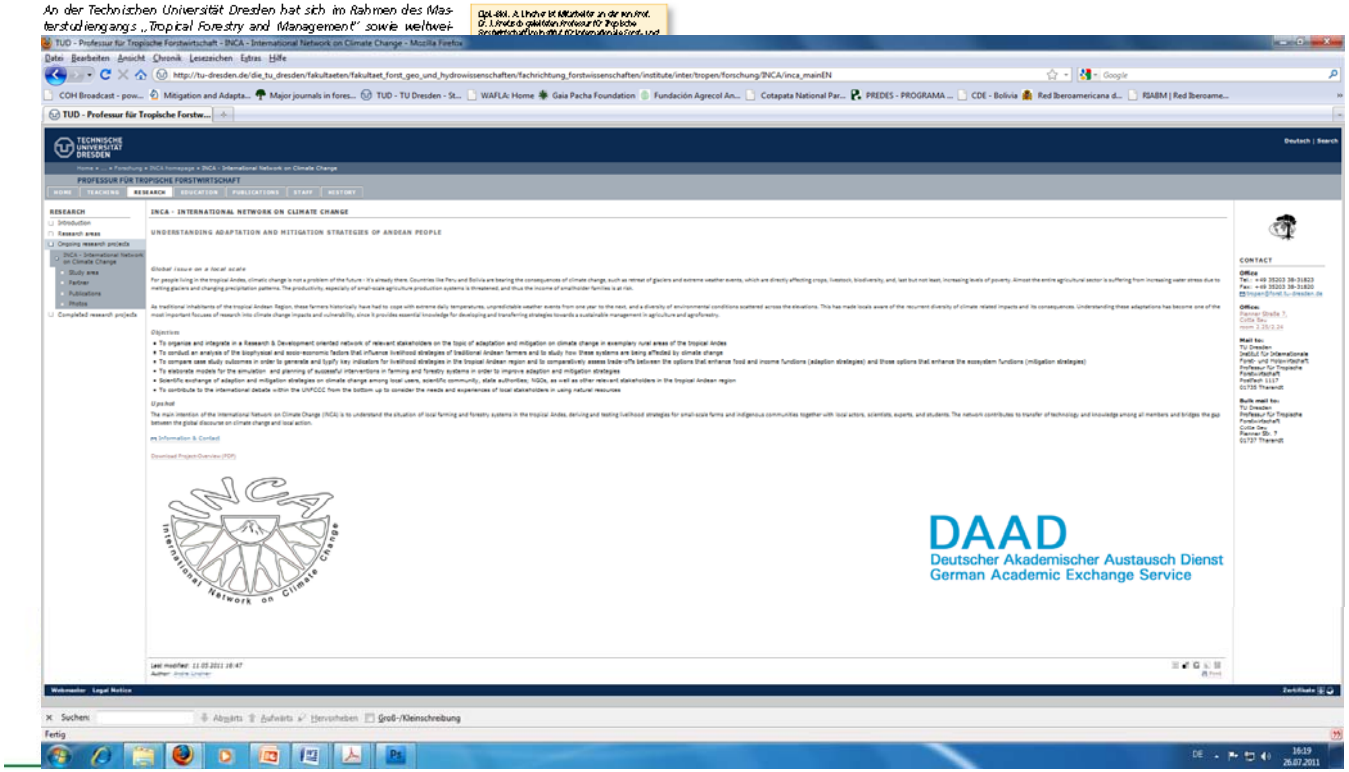
Globale Konventionen aus lokaler Sicht

Biodiversität und Klimawandel

Andrea Lindner, Jürgen Pretzsch, Ute Berger

- create information and exchange platform
- beside the scientific level – enhance exchange among local users, state authorities and NGOs



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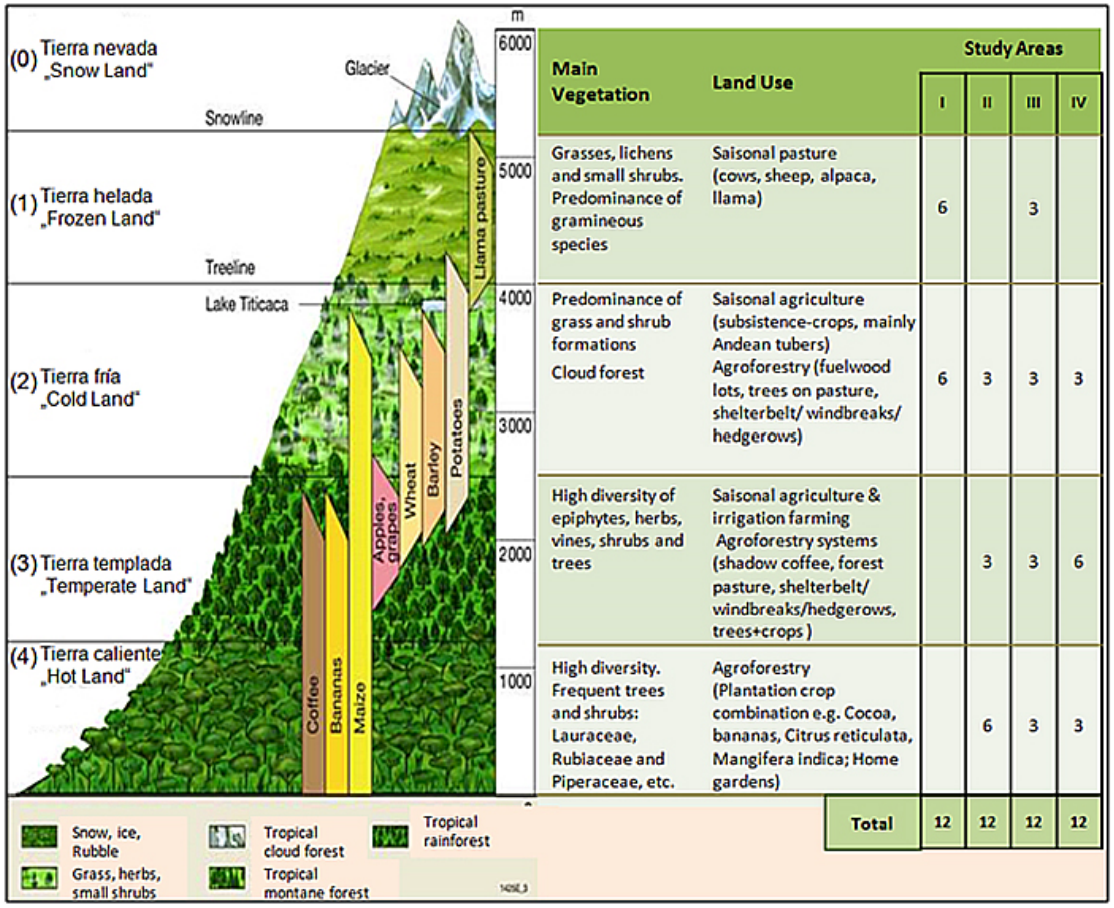
Study Area



Main Vegetation	Land Use	Study Areas I	II	III	IV
Grasses, lichens and small shrubs. Predominance of gramineous species	Saisonal pasture (cows, sheep, alpaca, llama)	6		3	
Predominance of grass and shrub formations Cloud forest	Saisonal agriculture (subsistence-crops, mainly Andean tubers) Agroforestry (fuelwood lots, trees on pasture, shelterbelt/ windbreaks/ hedgerows)	6	3	3	3
High diversity of epiphytes, herbs, vines, shrubs and trees	Saisonal agriculture & irrigation farming Agroforestry systems (shadow coffee, forest pasture, shelterbelt/ windbreaks/hedgerows, trees+crops)		3	3	6
High diversity. Frequent trees and shrubs: Lauraceae, Rubiaceae and Piperaceae, etc.	Agroforestry (Plantation crop combination e.g. Cocoa, bananas, Citrus reticulata, Mangifera indica; Home gardens)		6	3	3
	Total	12	12	12	12

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- suitability
- comparability
- infrastructure & logistics

Study Area

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Scientific Program

Saturday 30.07.2011 - Overview
Starting at 09:30 am

1) Pretzsch J.: General overview and status of INCA
2) Lindner A: Overview about the integration of the project to date & presentation of Workshop schedule

Monday 01.08.2011 - Colloquia & Discussion
Starting 09:00 a.m.

1) Beck S: Impacts of Climate Change on natural ecosystems in the Andes (*keynote*)
2) Brandt R: Ethnobotany and social learning in regard to climate change in the Andes
3) Valverde A: Insertion institutional, technical and operational change component in "The Bolivian National Watershed Plan"
4) Ruiz C: Project overview Bolivia and aspects of infrastructure at "Instituto de Ecologie" (UMSA)
5) Berger U: Introduction to agent-based modelling approach and data demand

Tuesday 02.08.2011 - Colloquia & Discussion
Starting 09:00 a.m.

1) Tapia M: Andean Ecosystems, Agriculture and Climate Change (*keynote*)
2) Martinez A: Introduction Project MAREMEX, Peru
3) Llerena C: Project overview Peru
4) Vidal M: PhD project-report
5) Jost F: PhD project-report

Wednesday 03.08.2011

09:00 – 11:00 a.m. Open group work - discussion

Friday 05.08.2011 - Colloquia & Discussion
Starting 09:00 a.m.

1) Zuleta C: MSc. project-report
2) Medina F: MSc. project-report
3) Lindner A: Introduction to current planning-, organization-, and financial issues
4) general: summary, discussion, implementation of coming PhD, MSc, Humboldt, FONASO and project extension plans

Saturday 06.08.2011
Starting 10:00 a.m.

Open group work - discussion

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Excursions

Saturday 30.07.2011 – City Tour Dresden

14:00 p.m.	departure Therandt
14:30 – 16:00 p.m.	city tour Dresden

Sunday 31.07.2011 – Elbsandsteingebirge National Park

08:00 a.m.	departure Therandt
10:00 a.m. – 16:00 p.m.	exploring the National Park; incl. Lunch in Czech Republic
~ 19:00	arrival Therandt

Wednesday 03.08.2011 – Elbe river tour

11:00	departure Therandt

River Tour:

departure Dresden:	12:00 p.m.
arrival Pillnitz:	13:30 p.m.
departure Pillnitz:	16:00 p.m.
arrival Dresden:	17:30 p.m.

Thursday 04.08.2011 – Leipzig

07:30 a.m.	departure Therandt:
09:30 a.m. – 12:00 p.m.	University Leipzig / introduction to TEEB (The Economics of Ecosystems and Biodiversity – Dr. H. Wittmer, UFZ) / project presentation "Regeneration of tropical montane forests in Bolivia" by D. Lippok (University of Halle) / tour Botanical Garden
12:30 – 13:30 p.m.	lunch at historical train station "Bayrischer Bahnhof"
14:00 – 16:00 p.m.	floodplain forest and canopy research station, presentation by chief forester
16:30 – 19:00 p.m.	tour historical city center, individual time
~ 21:00 p.m.	arrival Therandt

Friday 05.08.2011

Evening - Barbecue

Saturday/Sunday 06./07.08.2011

Optional trips (own expense): e.g. Prague, Panometer (Leipzig) - information will be provided

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Gracias por su atención.