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Climate Change & Environment Network Newsletter

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Dear members of the CC&E Network

The open tender to secure the necessary backstopping for our network as of 1 July 2015 resulted in three interesting offers characterized by new and more inclusive working modalities and greater flexibility to respond to new needs in the future. After a careful review and evaluation process, the bid proposed by INFRAS was awarded. It consists of a platform composed by the Stockholm Environment Institute, the ZOÏ Environment, UNITAR from Geneva, the University of Zurich, CSD engineers and Schwank Earthpartner AG. The new contract will last for 30 months until end of 2017. It consists of three services packages: 1) Capitalisation and communication, 2) Mainstreaming and capacity strengthening, 3) Thematic and conceptual expertise. The basic idea is to secure the need for core services such as e.g. the production of our newsletter, the maintenance of our website etc. while allowing to tackle new needs such as extracting lessons learnt and packaging them as attractive capitalization products or organizing interesting thematic events in Switzerland and abroad. Moreover, the new agreement allows to further widen the range of sub-contracting partners from all over the world and to involve them into the project. One fourth of the budget has been reserved for this purpose. We hope that it will allow us to provide the support needed by our colleagues in the field and that new regional sub-networks driven by own initiatives and high commitment for the cause of CC&E will emerge.

Let's move! Your Focal Point Daniel Maselli

SDC Funded Projects & Programmes

Nutrition in Mountain Agro-Ecosystems (NMA)

A disproportionally high number of the world's hungriest and chronically malnourished people reside in mountain regions. Households and communities in mountain areas depend highly on agriculture, which is often constrained by scarce arable land resources, difficult climatic and topographic conditions, and poor infrastructure. SDC supports the establishment of a Mountain Agro-ecology Action Network by IFOAM (International Federation on Organic Agriculture Movement) and a consortium (Helvetas, FiBL and UR-Centre for Development Innovation CDI) which will facilitate the integration of nutrition sensitive practices into service delivery and policies. Triggering consumer demand for diversified diets and diversified agricultural production shall lead to improved nutrition and resilience for half a million people, particularly women and children. The country focus of the project will be Kyrgyzstan, Peru, Pakistan, Nepal and Ethiopia.

Water Efficiency in Rice and Cotton Production

Rice and cotton are two very important agricultural products for the world but also high water consuming crops. 70% of the global water use is consumed by agriculture, mainly for irrigated crop production. Around 30% of the total irrigation water is used for rice and cotton. Both crops are relevant for food security because of crop rotation and diversification. Furthermore, both crops are relevant for smallholder farming and thus their occurrence depends on household income and the economic status of families. The overall goal of the project will be to improve water use efficiency of rice and cotton by promoting effective water use systems and behaviour as well as better agronomic approaches. Moreover, the project will promote a better involvement of the private sector and coordinating platforms. The project will focus on two regional clusters; Central Asia (Kyrgyz Republic and Tajikistan) and South Asia (India and Pakistan) and will be implemented by Helvetas/Swiss Intercooperation.

Update on SDC funded projects - Climate Services for the Andes, CLIMANDES

The first phase of the project CLIMANDES (Servicios climáticos con énfasis en los Andes en apoyo a las decisiones), aiming to improve climate services in Peru, has been successfully completed. In addition to improving climate services, the project also envisaged the formation and training of students and professionals in meteorology and climatology.

Hydrology modelling course, Peru, Lima 20-22 April 2015

The project was run by the Peruvian Meteorological and Hydrological Service, SENAMHI, and the Federal Office of Meteorology and Climatology MeteoSwiss to improve climate services and transfer Alpine know-how to the Andes. "It is a very good example of cooperation between two mountainous countries which share many geographical and meteorological characteristics. It's a good example of a win-win cooperation," said WMO **Secretary-General Michel Jarraud**. Peru is vulnerable to rising temperatures and the subsequent melting of Andean glaciers as well as ocean warming and acidification. In Peru, the impacts of cold waves on the health sector and the losses due to extreme hydrometeorological events in the agricultural sector alone are estimated to amount to approximately 0.5% of national GDP, according to a World Bank study. Nearly one third of Peru's economically active population works in the agriculture sector. Rainfall patterns are changing and ancient techniques by farmers do not show the expected results. Vulnerable groups such as the rural population of the Andean region therefore desperately need better forecasts and support tools. SENAMHI and MeteoSwiss conducted a pilot case study in the mountainous region of Cusco. The study estimated that the socio-economic benefits of early warning systems would be at least USD 10 million for a ten-year period in Cusco, and at least USD 100 million at national level for coffee and maize. Building on the positive results of the first phase, the focus will now switch to expanding and upscaling the pilot project in the next phase planned for 2016 to 2018. More

Policy Processes

SDC/SECO Annual Report – Switzerland's broad-based international cooperation activities in 2014

The Annual Report of SDC and SECO highlights that despite an increasingly complex development policy context over the past year, Switzerland has succeeded in making a number of important contributions to key aspects of international cooperation. These include the promotion of democracy, sustainable economic growth, and vocational education and training, support for smallholder farmers, aid for refugees and migrants, as well as conflict prevention and emergency assistance. The report especially highlights Switzerland's contributions to the Green Climate Fund, in order to support developing countries in the transition to a low-carbon and climate-resilient development path. More

How to finance the international climate contribution? – Interview with Bruno Oberle

Bruno Oberle, Director of the Federal Office for the Environment, provided his insights on the future of climate financing. His main statement reveals that SDC may have to rethink its position. Instead of focusing on gender and governance, focus shall be set on climate. With this statement he claims that additional climate contributions promised in Copenhagen shall be financed from the development budget. He argues that because the ODA budget has been augmented to 0.5 percent, it already is additional. Opinions may differ on this interpretation. More

Newly published research papers on climate change policy issues

Two papers developed by MAPS (Mitigation Action Plans & Scenarios) Programme and funded by SDC have recently been released, discussing two important topics relevant for the international climate policy process. The paper on **Negotiating the 2015 Climate Agreement** highlights issues to the legal form and nature of future climate agreements. In addressing the issue of "legal form" it identifies the instruments that will likely form part of the Paris package and explores the characteristic features of each with a particular focus on their legal status, significance, and influence. In addressing the issue of the "legal nature" of nationally determined contributions submitted by Parties, the paper considers the nature and scope of contributions, the range of options for housing them, as well as their relationship to the core 2015 agreement. More The second paper discusses **the contribution of the Long Term Mitigation Scenario process to South African climate mitigation policy.** In 2005 the South African Cabinet mandated the Department of Environmental Affairs and Tourism to commission a Long Term Mitigation Scenario process. The process was a combination of modelling and facilitated stakeholder engagement, which provided the Cabinet with a set of scenarios describing South Africa's options in mitigating climate change. The process has now been reviewed and findings may also be of interest for countries wishing to advance and deepen climate mitigation policy. More

Climate Intelligent Agriculture – A regional climate resilient agriculture strategy for West Africa

Between 15th and 18th June 2015 a high-level meeting of agricultural policy leaders and technical experts of West Africa assembled in Bamako with the aim to prepare a regional climate strategy for the development of sustainable agriculture. The aim was to adjust the agriculture production and better protect environmental resources so that the region may better adapt to the upcoming challenges of climate change. Responsible persons of different organisation such as CEDEAO (Economic Community of West African States), UEMOA (West African Economic and Monetary Union) and of CILLS (Permanent Interstates Committee for Drought Control in the Sahel) as well as various focal points of the 17 member countries attended the meeting. Representatives of the producer organisation, civil society and private sector actors, technical and financial experts contributed to the discussion led by USAID. Experts exchanged their view on integrating a climate intelligent agriculture into their local and regional investment programmes. The Bamako forum has led to an intervention framework of climate intelligent agriculture and to the creation of the Alliance West Africa in order to operationalize the implementation. The outcome of the discussion will also influence the position of West Africa regarding the upcoming COP21 conference in Paris. More

Science and Research

Large-Scale Patterns of Turnover and Basal Area Change in Andean Forests – New publication

General patterns of forest dynamics and productivity in the Andes Mountains are poorly characterized. A first large-scale study of Andean forest dynamics using a set of 63 permanent forest plots assembled over the past two decades has thus been realized. In the North-Central Andes tree turnover (mortality and recruitment) and tree growth declined with increasing elevation and decreasing temperature. In addition, basal area increased in Lower Montane Moist Forests but did not change in Higher Montane Humid Forests. However, at higher elevations the lack of net basal area change and excess of mortality over recruitment suggests negative environmental impacts. In North-Western Argentina, forest dynamics appear to be influenced by land use history in addition to environmental variation. Taken together, the results indicate that combinations of abiotic and biotic factors that vary across elevation gradients are important determinants of tree turnover and productivity in the Andes. More extensive and longer-term monitoring and analyses of forest dynamics in permanent plots will be necessary to understand how demographic processes and woody biomass are responding to changing environmental conditions along elevation gradients through this century. More

CoDriVE-PD webtool goes live – making projects climate smart

CoDriVE – Programme Designer" (CoDriVE-PD) is a decision support tool that has been developed to enable processing of data for generating the vulnerability profile of communities and production systems, while pointing out specific adaptive actions required. The tool was developed as part of the SDC supported project Climate Change Adaptation Project in Semi-Arid and Rain-fed Regions of Maharashtra, Madhya Pradesh and Andhra Pradesh (CCA). The tool examines 'Drivers & Pressures' that influence decisions to promote change and reduce vulnerability and helps to prioritize channelling of resources to the most vulnerable regions and communities. More

Lake outburst and debris flow disaster in the Himalayas – A scientific pilgrimage

The flood that swept through the Indian state of Uttarakhand two years ago killed thousands of people and was one of the worst disasters in the nation's recent history. Now researchers are saying that melting glaciers and shifting storm tracks played a major role in the catastrophe and should be a warning about how global warming could lead to more damaging floods in the future. Four months after the flood, scientist Vaibhav Kaul set off on a scientific pilgrimage to the disaster site, determined to learn why a town considered relatively safe had flooded. More

Adaptation to climate change and agriculture – what does it mean?

Adaptation to climate change in agriculture is a hot topic, but what exactly does it mean? And is it clear how to measure the success of adaptation strategies? The authors of the article in Rural 21 (The international journal for Rural Development) take a step back before embarking on adaptation work in rural development (continuation on page 4).

Thematic Focus – r4d programme

Insights in companion modelling of the r4d project Oil Palm Adaptive Landscapes (OPAL)

The r4d programme is a joint funding initiative of the Swiss Agency for Development and Cooperation (SDC) and the Swiss National Science Foundation (SNSF) focusing on the reduction of poverty and global risks as well as the provision of public goods and services. It aims to generate innovative and relevant knowledge that is applied in policy and practice. To develop solutions that account for complexity and diversity, the r4d project teams are working in transnational teams, often including different disciplines, and are applying transdisciplinary methods.

Companion modelling (ComMod) is a participatory methodology that facilitates the understanding of complex, socio-environmental systems crossing disciplinary boundaries and involving multiple stakeholders. It has been developed and used since 2000 by some researchers working in the field of renewable resource management. ComMod comprises various tools, particularly Agent-Based Models and Role-Playing Games to tackle issues regarding decision processes, common property, and co-ordination among actors.

The Oil Palm Adaptive Landscapes project, which is funded by the r4d programme, contributed to a course on ComMod in May 2015, organized by the Forest Management and Development Group (ForDev - ETHZ/CIRAD) and its partners. Members of the OPAL team from Cameroon, Colombia, and Indonesia joined the training, and during a week, gained skills and developed models, using the "Sepultura" Man and Biosphere Reserve in Mexico as a case study. Here, they give their views and outlooks of the approach.

Beth Sua Carvajal (Colombia): The ComMod workshop was an amazing opportunity for learning while participating in a role-play game. We had to immerse ourselves into the problem, which in turn allowed us to see clearly how different stakeholder behaviours are driven. Building a ComMod process allowed us to find the challenges and benefits of this process and its potential application in the Colombian OPAL project. This methodology might be applied to generate and facilitate the dialogue and consensus between the palm oil sector and other stakeholders (e.g. local and regional governments). In this kind of role-playing space, where reality is simplified and carefully modelled, stakeholders can explore the various impacts of oil palm production. Furthermore, they can explore alternatives in order to improve the management of oil palm landscapes.

Heru Komarudin (Indonesia): While assisting us (as scientists) in better understanding complex environments through the cycle of field situation, models, and simulation, the real strength of ComMod lies in the continuous and iterative confrontation between perceptions and views held by scientists, planners, engineers, and local land users. This helps lead us towards more subtle and mutually agreed decisions, and potential changes in behaviour, practices and policies. The current expansion of oil palm plantations in Indonesia represents such a complex situation, marked by wicked problems and contentious debate among actors on oil palm as drivers of deforestation and sources of the national economy and important benefits for companies and livelihoods for local people. By using a ComMod approach, the Indonesian team intends to co-construct, calibrate, and validate a conceptual model for sustainable palm oil development in specific settings in East Kalimantan. We will engage relevant stakeholders such as local government agencies, local people, large and small scale oil palm growers, NGOs and others in iteratively and communally developing the model, and hence explore and define possible scenarios for future governance of oil palm.

Durrel Halleson (Cameroon): The ComMod approach brings new perspectives to participatory mapping, especially through role play games. In the context of Cameroon with the government's ambition of becoming an emerging economy by 2035 and with the absence of appropriate land use planning, the ComMod approach could help in resolving some of the visible conflicts between conservation and development.

Integrating ComMod in the implementation of the OPAL project shall contribute especially in promoting a sustainable oil palm sector with focus on promoting smallholder schemes. The use of ComMod in the OPAL project has the potential of improving dialogue between the different stakeholders and especially between the smallholders and large scale oil palm companies operating in Cameroon and the secondary level industries (those transforming crude palm oil to finished or semi-finished products). Between August and September 2015, we are planning to involve the different stakeholders to define scenarios for a sustainable oil palm development in Cameroon.

Using models and games to discuss management options (photo: OPAL project)

If you are interested in finding out more about the project or the method, you can follow the OPAL project on facebook.

If you are interested in getting involved in the participatory approach of the OPAL project in one of its partner countries, you can contact Ariane Hangartner.

Text by Beth Sua Carvajal, Heru Komarudin, Durrel Halleson, Jaboury Ghazoul, Claude Garcia, Claudia Rutte

They carefully clarify the goals of adaptation and scrutinise the role of rural development organisations in adaptation processes. They argue that formulating the goals and designing measurements for adaptation success in agriculture is much more challenging than commonly thought. In fact, adaptation to climate change brings neglected dimensions of rural development work to the fore, calling for a thorough reassessment of how to best engage in this work. More

Events and Trainings

Past: JRB Study Tour to Switzerland, 24-30 May

In the context of the Jinsha River Basin Project (JRB), which deals with the impacts of climate change to water resources and elaborates adaptation strategies in the upper Yangtze river catchment (Jinsha river), a first Study Tour to Switzerland took place in May 2015. The Study Tour offered Chinese experts the opportunity to communicate on the implementation process, to update their knowledge on extreme event analysis, analytical methods of hydro-meteorological data, terrestrial and remote sensing monitoring systems, hydro-meteorological forecasting and water allocation modelling, and to discuss general topics on climate change scenarios relevant for the project (e.g. uncertainties).

Past: Information sharing mission, Chile's CONAF and Peru's SERFOR South-South Cooperation, 25-26 May, Chile

The Andean Forests Program with the support of Swiss Cooperation COSUDE - has identified opportunities to promote South-South cooperation in priority issues for conservation and sustainable management of Andean forest landscapes and climate change adaptation. During an information sharing mission in May 2015, the bi-national working session brought together representatives of Peruvian and Chilean government agencies and International Cooperation Agency (AGCI). Teams formed from the Andean Forests Program and Swiss Cooperation COSUDE's Global Programs also joined the sessions. More

Programa Bosques Andinos

Past: National workshop on Building insulation Material Testing & Application, 19th June, New Delhi, India

The national workshop on "Building Insulation Material Application and Testing" was organized in partnership with the Bureau of Energy Efficiency, Ministry of Power and the India Insulation Forum (IIF). The workshop was part of a bilateral cooperation project "Indo-Swiss Building Energy Efficiency Project (BEEP)" which is supported by SDC. The event achieved a major milestone by launching the technical manual on insulation materials testing, a manual prepared by IIF in consultation with BEEP on the application of building insulation and IIF website. A Memorandum of Understanding was exchanged between BEEP and the representatives of the five India partner labs to enhance their capacities on insulation material testing. More

Upcoming Events:

- **2nd Africa Ecosystem Based Adaptation for Food Security Conference 2015** (EBAFOSC 2) – International UN Conference, 30-31 July, Nairobi, Kenya More
- **Scaling up good adaptation practices** – International Conference, 24-25 August, New Delhi, India More
- **World Symposium on Climate Change Adaptation,** 2-4 September, Manchester, England More
- **Vanishing glaciers and coping communities: Insights from around the world –** Learning event, 10th September, Bern, Switzerland More
- **Second International Conference on Community Land and Resource Rights**, 30th September – 1st October, Bern, Switzerland More
- 8th International Scientific Conference on **Energy and Climate Change**, 7-9 October, Athens, Greece More

Key Resources

Below is a list of resources worth looking at:

- Release of the Final MDG Report: Gains, Shortfalls Point Way to Post-2015
- A new OECD report on Aligning Policies for a Low Carbon Economy
- The Independent Evaluation Office of the Global Environment Facility (GEF IEO) has undertaken a Good Practice Study on Indicator Development, Selection and Use Principles for Climate Change Adaptation M&E.
- The WHO issues a Guidance on Heat-Health Warning Systemshttp://climate-l.iisd.org/news/wmo-who-issue-guidance-on-heat-health-warning-systems/.
- A new book released by FAO is reviewing scientific and economic climate change impacts on food and agriculture over the past 20 years
- Biodiversity and IDS publish Toolkit to Measure Communities' Climate Change Vulnerability

Special thanks go to the contributors of information:

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- **Jocelyn Patricia Ostolaza Beytia and Jean-Gabriel Duss** on activities in the Andes Region
- **Jürg Staudenmann** on an interview with Bruno Oberle
- **Antonia Sutter and Manish Mohandes** on CoDriVE-PD webtool
- **Liyan Wang** on Chinese Study Tour