Editorial

Football, forests, climate and adaptation

By Denis Sonwa

All eyes are on Africa because the FIFA World Cup is being held in South Africa. This competition is dominating the headlines and is hard to avoid. However, here we look at this subject from another point of view – that of forests and the adaptation to climate change in Central Africa. Is there a link between football, forests and climate change adaptation?

The national football teams of Central Africa are often named after forest animals. Team names include: the Fauves du Bas-Oubangui [Big Cats of Bas-Oubangui] of the Central African Republic, the Lions Indomptables [Indomitable Lions] of Cameroon, and the Léopards of the Democratic Republic of Congo. Cameroon’s team name reveals an even greater desire for a close relationship with nature. The use of these names shows how forests play an important role in the culture of countries in this subregion. It also demonstrates the pride people feel in identifying with their natural surroundings. Be it a wild animal in a
forest or its human counterpart in a football team, each is influenced by their environment. In forests, different stress factors such as the destruction of plant cover or changes and variations in the climate, make these animals more vulnerable. In football, the social environment and economic globalisation have an enormous impact on a team’s performance. Both wild animals and footballers are thus vulnerable to external stress factors. We must do our utmost to ensure that, in the event of stress, both animals and players are able to adapt and cope with the situation.

The sporting calendar, which includes football matches, takes weather forecasts into account. Football stadiums (at least in certain cities in the West) are increasingly being adapted to deal with the weather by being enclosed. Similarly, those working in the forest sector take weather conditions into account when programming their activities. Just as weather conditions determine the scheduling of sporting events, they also determine the agricultural calendar and the management of natural resources in forest zones.

Forests – another source of African pride after football – are one of the main elements people focus on when discussing the continent in terms of development and the environment. Above all, people speak about biodiversity and the role that forests play in carbon sequestration. By paying too much attention to ecological services (carbon sequestration and biodiversity), which interest the international community, people can forget that many human populations are vulnerable to climate change and that we must develop adaptation strategies for them as well as the forests on which they depend, in order to protect them both from climate stress. In football, Africa has given the world iconic players such as Roger Milla, Samuel Eto’o and Shabani Nonda. By focusing too much attention on these stars and their skills, which delight Western teams, we often forget that numerous young people in Africa have no stadiums at all to play football in, or even classrooms or proper health care facilities. Whether it be in the world of football or the forest sector, the pride we feel for a few individual examples recognised on a global level should not stop us remembering the high degree of vulnerability that exists at local, national and even regional levels.

While a few African footballers are outstanding on an international level, the local football situation is very different from that of the continent’s Western counterparts. Similarly, while African forests sustain a significant economic sector and bring joy to consumers in other parts of the world, paradoxically the local populations living in these forests endure extreme poverty. While young people in Central African countries constitute the raw material of the world sports industry, forest communities and resources constitute an important link in the global efforts to fight climate change. Just as African football is said not to allow African players to develop their full potential in their homeland, wood and ecological services originating in African forests are seldom regarded as sufficiently benefiting African populations.

Similarly, just as South African football was boycotted during the apartheid regime, African forest products could be boycotted if they lack a minimum degree of governance accountability. Good governance often includes sustainable management rules that take into account not only environmental but also socio-cultural aspects of forest management. In the near future, it is quite possible that climate change aspects (greenhouse gas emissions or the vulnerability of communities to climate change) will also be taken into account. While, as far as possible, sustainable management sets its sights on the long term, it also aims to reduce inequality. Football stars are often used to defend humanitarian causes. The Confederation of African Football (CAF) and the Food and Agriculture Organisation thus arranged a campaign entitled ‘African Football against Hunger’ to coincide with the 2010 FIFA World Cup. Let us hope that the international football world starts to show an interest in the peoples and forests of Africa, which are both vulnerable to climate variation and change.

While football plays a role in integrating people from North and South, forming part of cultural globalisation, forests can also allow Central African countries to contribute substantially to the international agenda in the fight against climate change. However, in order for forests to be effectively and legitimately protected in Africa, it is necessary that local communities and forests themselves adapt to climate change just as it is necessary that the countries of Central Africa develop their football at the local level.

Many people hope that hosting the 2010 World Cup will sow seeds for growth and development that will flourish long after the competition has finished. In 2011, Africa will also hold the United Nations 16th Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP 16). While both are organised far in advance, just as the 2010 football year needs to be seen as a success, work will have to begin early to ensure that the 2011 climate change year also marks an important turning point for promoting adaptation in Africa. Work must start on this now, as it is the only way to ensure that the 2011 COP represents a big step forward for Africa.

Let us hope that the current football craze also encourages those working on a daily basis to promote the adaptation of forests to climate change in Africa. The FIFA World Cup has now begun and it is hoped that it will be successful and bear fruit in the future. Let’s hope the climate is perfect for it!
Over the past decade, terms such as gender roles, gender relations, gender discrimination, gender equality, gender equity, gender analysis, gender balance and gender mainstreaming have all been accepted into declarations, plans of action, policies, programmes and projects. Although these terms are accepted, they are not fully understood: the stumbling block is the word ‘gender’. CIFOR emphasises gender in its research but many of its researchers do not know how to go about mainstreaming the concept in their research. CIFOR has therefore organised a training series on gender for its staff at various levels.

CoFCCA project team members Youssoufa Bele attended a training workshop on gender analysis at CIFOR's Bogor campus from 26 April to 1 May 2010. About 10 researchers attended this workshop, where they learnt about concepts, levels, participatory tools, application of tools and data analysis as they relate to gender analysis. The workshop included oral presentations and interactions among participants. Theory was supplemented with practice through a field visit.

Key concepts included defining gender as the social, cultural, politico-legal and ideological construction of male and female roles, relations and rights on the basis of perceived differences between men and women. Gender is also a system of social relations and ideologies that influence other social relations, institutions and processes. In other words, gender refers to the social attributes and opportunities associated with being male and female and the relationships between women and men and girls and boys, as well as the relations between women and those between men. These attributes, opportunities and relationships are socially constructed and learned. They are specific and changeable depending on context and time. Gender constructs determine what is expected, allowed and valued in a woman or a man. In most societies there are differences and inequalities between women and men in the responsibilities assigned, activities undertaken, access to and control over resources, as well as decision-making opportunities.

Integrating gender into our project may include stressing more locally based research on gender–climate links and understanding local gender dynamics, such as how gender roles ‘vary across culture, class, ethnicity, income, education and time’. Such research should ask:

- How do the different types of climate change impacts, such as droughts and flooding, affect men and women differently?
- How do men and women adapt to climate variability and extreme events?
- How do men’s and women’s roles complement each other in coping with changing climate conditions?
- How may gender roles change when climate conditions change?

Fortunately, the CoFCCA project was designed so that gender is mainstreamed from its inception. In the project framework, gender study helps to ensure that women and men are not burdened and made more vulnerable by changing responsibilities due to climate change; that gender inequalities are not amplified; and, that opportunities are identified that can collectively reduce vulnerability and enhance adaptive capacity.
How to introduce forests and climate change adaptation into mass communication curriculums

By Edith Abilogo

On 10 May 2010, Denis Sonwa, CoFCCA Project Coordinator, and Edith Abilogo, the regional communication officer, visited the directors of the École Supérieure des Sciences et Techniques de l’Information et de la Communication [School of Journalism and Mass Communication] (ESSTIC). Dr Emmanuel Mbede, course director and coordinator of the master’s degree programmes in health and the environment, and Dr Alice Nga Minkala, deputy director of ESSTIC, took part in the working session, which was held in the reception room belonging to the ESSTIC deputy director. The discussions touched on the opportunities offered by this institution for teaching students about forests and climate change and the possibilities of establishing a partnership with CoFCCA. The meeting allowed the CoFCCA representatives to get an idea of the gap between the education being offered at ESSTIC and the global climate change challenges we face today in adaptation and mitigation.

Apiculture and climate change, the start of a study in Cameroon

By Denis Sonwa

As part of CoFCCA’s activities, a new line of communication has just been opened with several people working in apiculture in Cameroon. A discussion between Denis Sonwa and Verina Ingram, both CIFOR researchers, led to a research protocol being drawn up that will be co-financed by CoFCCA and the CIFOR Livelihoods Programme. This will allow one student, Stéphanie Tangkeu Ngana, from Dschang University to conduct research into apiculture and climate change as part of the second year of her master’s degree. The aim is to see how climate disturbance can impact honey and beeswax production; discover beekeepers’ perceptions of these changes; and, find out what their adaptation strategies are. The work will be carried out in the Adamawa Region and in NW Cameroon. In addition to receiving CIFOR’s scientific support, Stéphanie will be supervised by Dr Jonas Pinta (University of Dschang) and Professor Tchuengem (University of N’Gaoundéré). These two university lecturers are known for their extensive experience with apiculture in Cameroon.

Reflection on adaptation to climate change and epistemology

By Denis Sonwa

The CoFCCA project includes plans to increase the number of disciplines dealing with climate change as far as possible. One area that appears to be missing is epistemology, which is the discipline that deals with the philosophy of science. This allows scientists’ behaviour and scientific policies to be questioned. It is useful, since it allows for a permanent reappraisal and renewal of scientific work. This is particularly true if epistemology is linked to contemporary activities. Epistemology specialists within the subregion do not appear to have worked on forests or on climate change adaptation yet. In our circle, we have already begun to speak about this. Therefore, we are now opening up this discussion, to allow more people to begin to think about this issue.
CoFCCA helps create a new subregional project
By Denis Sonwa

On 22 May 2010, Cyrie Sendashonga signed an agreement on behalf of CIFOR to fund a new project to be launched in the near future in Central Africa. The project, ‘Congo Basin Forest Adaptation and Mitigation: Synergies between Adaptation and Mitigation’ (COBAM), is a new initiative following up work that began as part of the CoFCCA project. The new project will deal with climate change adaptation and mitigation. It will mainly work on CARPE landscapes (Biodiversity conservation landscapes). The project will help develop responses to the vulnerabilities created by climate change, and avoid emissions created by deforestation and the degradation of biodiversity conservation landscapes in the Congo Basin. This agreement is an important milestone in establishing CoFCCA because it is the second initiative after CoFCCA, and it shows that the subregion’s stakeholders are gradually beginning to understand the need to focus on forests and adaptation to climate change in Central Africa. The project will last 5 years and the African Development Bank has granted funding to the Central African Forests Commission (COMIFAC), through the Economic Community of Central African States (ECCAS), for the Support Programme for the Conservation of the Congo Basin Ecosystems.

Meeting at the Ministry of Environment to prepare Cameroon’s second national communication
By Denis Sonwa

In the process leading up to the preparation of Cameroon’s second national communication, on 16 April 2010 the Ministry of the Environment and Nature Conservation (MINEP) invited several experts to reflect on a draft introductory document for this communication. This stage follows on from several meetings aimed at defining the main lines of this second national communication on climate change. Denis Sonwa represented CoFCCA at this meeting.

CoFCCA offers research grants to broadcasters
By Edith Abilogo

In June 2010, the Congo Basin Forests and Climate Change Adaptation (CoFCCA) project invited applications for six research grants (master’s degree, diploma of advanced studies [DEA] or the equivalent), focusing on communication on forests and the climate change adaptation strategies of forest communities in the Congo Basin. These grants will allow students in journalism and mass communication schools in Central Africa to write their dissertations on this subject. CoFCCA decided to organise these grants because climate change, and indeed forests and adaptation, are little covered by the subregion’s media. The curricula of journalism and mass media schools do not include specific courses on climate change and even less so on forests and adaptation. Specific institutions and projects do not offer enough places on training courses to ensure an effective and lasting involvement of the media in these issues, due to the institutions’ limited capacity.

Besides contributing to the project by reinforcing the skills of national media professionals with regard to climate change, adaptation and forests, CoFCCA’s current grant scheme aims to get more broadcasters involved in covering climate change and adaptation issues in Central Africa.
There have been a few changes to the CoFCCA team in the Central African Republic. Bruno Bokoto, who worked as a CoFCCA assistant, has joined the Food and Agriculture Organisation. Thus, Cyrie and Denis went to the Central African Republic to speak to Bruno and the university authorities about his departure and see how he could be replaced in the team. After consulting with university authorities, Martial Gapia, a CoFCCA grant holder, was appointed as the new CoFCCA assistant. Martial is among the first batch of students to receive financial aid as part of the CoFCCA project, for his research into forests and adaptation to climate change. Enrolled at the University of Yaoundé 1 in Cameroon, his master’s degree is entitled ‘Rainfall and runoff variability and adaptations by farmers in the SW of the River Mpoko watershed in a Central African forest environment’. He views his new responsibilities as a promotion within the CoFCCA project. He will work with Professor Ngana Felix (the project’s focal point in the Central African Republic) to ensure that CoFCCA project activities progress in this country.

We wish Bruno all the best in his new venture and welcome Martial back into the CoFCCA group, this time as country assistant.

Climate change vulnerability maps are essential to provide people with more information. Since 8 June 2010, Charlotte Pavageau has been working on maps within the scope of the CoFCCA project.

She will carry out this work as part of her course for a Diploma in Rural Engineering, Water and Forestry at AgroParistech-ENGREF. Before arriving in Cameroon, she visited Bogor in Indonesia to discuss methodology with Bruno Locatelli, who leads research in adaptation to climate change at CIFOR. During her time in Central Africa, Charlotte will be assisted by Germain Mbock, a forester and former trainee on the CoFCCA project. She will collect secondary information and interview different people to discover their points of view on the importance of the parameters required in evaluating vulnerability. She will also help researchers refine their methodology more precisely.

The Forest and Environmental Sector Programme (PSFE) provides a framework for forest sector activities in Cameroon. In order to integrate the programme climate aspects more fully, the German agency for technical cooperation (GTZ) organised a meeting on 21 June 2010. The reason is that, starting in 2010, all German cooperation programmes in the forest sector have to take climate change into account. In the initial phase (2007–2010), the PSFE did not explicitly consider climate aspects. The programme’s assessment mission in June aims, among other things, to propose a climate component in the next PSFE phase (2011–2015). The meeting on 21 June allowed actions within this climate change component to be identified. CoFCCA has contributed by talking to Dominic Stanculescu of GTZ about his experience and the information already obtained. So, let us hope that climate change adaptation will be taken into account in future forest programme.
Participatory action research activities in Cameroon

By Youssoufa Bele

Participatory action research (PAR) activities for CoFCCA from April–June 2010 included the identification and prioritisation of adaptation strategies, as well as negotiating with the partners who are to accompany the communities in implementing the chosen adaptation strategies. Meetings were organised with communities and partners to arrive at the definitive choice of strategies and their means of implementation. The choice of strategies took the specific characteristics of each site into account. However, the final selection of strategies for the climate change adaptation to be implemented bore several factors in mind:

- How important the strategies were for the communities;
- The feasibility of the strategies in terms of time (short, medium and long-term), bearing in mind the time left before the project ends (around 1 year or less than 1 year);
- Factors related to CIFOR’s and the project’s mission;
- Factors concerning the forest, the communities and adaptation to climate change;
- The expertise available to implement the activity;
- Reasonable costs;
- The experimental basis.

Table 1 sums up the final choice of strategies to be used in our sites.

In the case of some partners, partnerships for implementing some strategies were negotiated and agreed. More specifically, the strategies included:
- Teaching people to grow *Gnetum* spp. in Nkol-Evodo (ADIE), Yokadouma (CENDEP);
- Training in mushroom growing (Projet Champignons d’Obala [Obala Mushrooms Project]), and supplying cuttings of high-yield cassava resistant to mosaic disease and root rot (IITA).

In our study sites in Cameroon, climate change adaptation strategies began implementation in June 2010 with the distribution of cassava cuttings to members of the Lekié Farmers Cooperative (COPAL) in Nkol-Evodo. These cuttings come from the International Institute of Tropical Agriculture (IITA), which is a technical partner in this project. The exercise aimed to test the capacity of these cuttings to produce a good yield of cassava, which is resistant to root rot and mosaic disease. Twenty-four COPAL members have been supplied with these cuttings. IITA monitors the community on a regular basis.

Table 1. The most important adaptation strategies selected by the communities

<table>
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<tr>
<th>Strategy</th>
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<tr>
<td>Teaching people how to grow <em>Gnetum</em> spp.</td>
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<tr>
<td>Supplying high-yield cassava cuttings resistant to mosaic disease and root rot</td>
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<tr>
<td>Teaching people how to breed cane rats (<em>Thryonomys swinderianus</em>)</td>
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<tr>
<td>Teaching people how to keep bees</td>
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<tr>
<td>Teaching people how to grow mushrooms</td>
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<tr>
<td>Agroforestry training</td>
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<tr>
<td>Teaching people nursery techniques for growing tree species important to the communities (<em>njansang</em>, wild mangos, etc.)</td>
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<tr>
<td>Domestication of <em>Moringa</em> sp.</td>
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<tr>
<td>Raising awareness about and training people in small-scale livestock breeding techniques</td>
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Identification and prioritization of adaptation strategies in Yokadouma. Photo by Youssoufa Bele
CoFCCA awards academic support to 15 master’s candidates in 3 countries

By Youssoufa Bele

CoFCCA aims, among other initiatives, to boost the capacity to research and apply adaptation strategies in the Congo Basin. We therefore selected 15 students specialising in biology, ecology, geography and sociology, among others, to participate in the CoFCCA fellowship programme for the academic year 2009/10. The 15 students were selected from the three project countries, in addition to the four students selected last year. Students will gain experience through working on tasks related to climate change adaptation. It means in future that the Central African region will have a set of young scientists familiar with climate change science, especially climate change adaptation.

In addition, we have put out a call for CoFCCA research fellowships in communication. Expertise in communications is also important in promoting the role that forests play in mitigating and adapting to climate change.

Participatory action research activities in the Democratic Republic of Congo

By Emile Mulotwa

In the Democratic Republic of Congo, participatory action research (PAR) consists of effectively implementing alternative activities to reinforce the capacity of local communities to adapt to climate change. These activities, specifically adapted to each site, follow on from workshops that brought together the CoFCCA team, the communities and the partners that accompany the communities. The 3rd PAR workshop, held in Kisangani and Mambasa in March, was of great value in mobilising the partners and allowing them to play a role in climate change adaptation activities.

In the Mambasa site, two partners ensured that the local communities and indigenous peoples receive constant guidance – VIFEDE (Vision Intégrée des Femmes pour le Développement) [Women’s Integrated Vision for Development] and ACRIPEL (Inspection territoriale de l’Agriculture Pêche et Elevage) [Territorial Inspection of Agriculture, Fishing and Livestock Breeding]. They are supervised by the international NGOs, WCS and PACT Congo. These two partners are now ready to start implementing field activities. In the Kisangani sites, the NGO APILAF (Association pour l’Appui aux Initiatives Locales en Afrique Forestière) [Association to Support Local Initiatives in African Forests] is also ready to implement the field activities.

Evaluation of the Copenhagen conference and preparation for Cancún: Ministers gather in Brazzaville

By Denis Sonwa

From 16 to 17 April 2010, a ministerial meeting was held in Brazzaville to evaluate the Copenhagen COP and the Paris meeting on climate change and perspectives, and to prepare for the COP 16 in Cancún. Technical experts, including Denis Sonwa and Professor Bouka Clobite of CoFCCA, met before the meeting of the subregion’s ministers for forestry and the environment. Organised by the COMIFAC-CEEAC, the Brazzaville meeting provided an opportunity for reflection on the COMIFAC Convergence Plan, and to focus on emerging aspects such as climate change in greater depth. A Group of Climate Experts from Central Africa will now be established as Central Africa’s version of the IPCC, with Professor Bouka presiding over the trio chosen to ensure the group’s effective establishment.
CoFCCA scholarship post-graduate students receive training in data collection

By Youssoufa Bele

Due to their limited capacity for exploiting the data collected in the field properly, students often have great difficulty assessing the results of their research work. In order to ensure that these students, who have received grants from the CoFCCA project, are up to speed in data processing, CIFOR organised biometrics training. This workshop was held from 16–18 June 2010 in the IITA conference room at the Nkolbisson station in Yaoundé. Twelve CoFCCA grant-holders based in Cameroonian universities took part. In parallel with the actual training, the participants were given complementary information on the use of Excel, to build their confidence in using this tool.

Dr Michel Ndoumbe Nkeng, the research manager and head of the biometrics centre at the Institute of Agricultural Research for Development (IRAD), was the resource person.

More specifically, the objectives consisted of strengthening the participants’ skills in:

- Designing a questionnaire to fit research hypotheses
- The formatting of a questionnaire
- Extracting data from a questionnaire
- Creating a dictionary of variables
- Creating a data entry form in Excel
- Formatting and cleaning up data
- Transferring data to software for statistical analysis

There was a brief talk on univariate descriptive analysis techniques including graphic techniques and digital summaries. To ensure participants were effectively operational, the consultant was made available for two months, from June to August 2010, to answer any questions about the questionnaires, plan data collection and mentor students.

CoFCCA presents at Central African Forests and Institutions conference in the USA

By Olufunso Somorin

Prof. Arun Agrawal of the School of Natural Resources and Environment, at the University of Michigan, invited CoFCCA to present at the 2010 Central African Forests and Institutions conference held 6–8 May, 2010, in Ann Arbor, Michigan. The conference centred on ‘Environmental governance, forests and logging concessions: The effects of institutional complexity on forest systems, cover and change in Central Africa’.

I represented the project and presented on ‘The adaptation-mitigation debate in the Congo Basin forest: Trade-off or synergy?’ The presentation was based on extensive data collection in Cameroon, the Central African Republic and DR Congo on the policy discourse about adaptation and mitigation. In the presentation I concluded that despite some trade-offs that cannot be ignored between adaptation and mitigation, there are more opportunities for synergy in strategy. Policy design should strongly encourage such synergies.

Prof. Elinor Ostrom, who was awarded the 2009 Nobel Prize in Economic Sciences, was the guest speaker. She spoke about the role of local institutions in co-managing forests for maximum benefits for livelihoods and environmental conservation. Other presentations focused on different topical issues on the Congo Basin forests: forest concessions, sustainable forest management, non-timber forest products (NTFPs), community forestry, deforestation and land cover change. The conference was successful and provided visibility for our project.
Presentation on PRECIS simulations at the CIFOR Yaoundé offices

By Wilfried Pokam

On 8 June 2010, a presentation entitled ‘Climate modelling work using PRECIS in the Congo Basin Forests and Climate Change Adaptation (CoFCCA) project’ was given at the CIFOR Yaoundé offices by Wilfried Pokam, consultant in charge of atmospheric modelling with the PRECIS (Providing Regional Climate for Impacts Studies) regional model provided by the Met Office. The presentation aimed to make the notions of climate modelling accessible to the public, to explain the link between modelling at CIFOR and the results of global models such as those used by the IPCC, the need for regional modelling, and finally to present our preliminary results.

When simulations are performed with PRECIS on any given part of the world, the boundaries of the geographical area defined in the model are always wider than the region in question. Depending on the climate characteristics in the study area, the difference between the two surface areas can significantly influence the result of the simulations. Therefore, it is sometimes necessary to carry out a simulation sensitivity study on the variation of this spatial difference.

The first stage of our activity involves the validation of PRECIS. In order to do this, we began by studying the sensitivity of the above-mentioned model. Several studies describe how the size of the domain can influence the results of the simulation. Our preliminary results on precipitation reveal that the size of the domain has little impact on the results. After obtaining these results, we were informed by the Met Office about problems with the data that we were using. Thus, this stage needs to be carried out again to confirm our findings.

CoFCCA work on PRECIS presented at the Brown International Advanced Research Institutes on climate change

By Wilfried Pokam

From 13–26 June 2010, I attended the Brown International Advanced Research Institute’s (BIARI) ‘Resilience and Adaptation to Changes in Precipitation’ symposium on climate change and its impacts, at Brown University in the United State. I was invited to present preliminary results on PRECIS’s sensitivity to the geographical scope of simulations.

BIARI convenes high-level academic institutes in workshop settings on Brown University’s campus each summer. The climate change impacts symposium focused on changes in the amount and variability of precipitation that will occur globally in future decades. Major themes included regional variations in changes to the hydrologic cycle; resilience of existing ecological, agricultural, economic and social systems; the potential for REDD+ to increase the resilience of these systems; and what can be learned from one region to inform effective design of adaptation policies in other regions.

The presentation focused on the first results of PRECIS’s sensitivity to the geographical scope of the simulation, and the goals for future work. After the presentation, I fielded questions on the confidence level in the results from modelling studies and the choice of a 2070–2100 timeframe for future scenarios, instead of 2030 or 2050. It was recommended we consider conclusions from atmospheric modelling studies based on several climate models. Since our modelling work aims to anticipate climate change impacts in the Congo Basin in order to develop regional adaptation activities, participants suggested 2030 or 2050 would be more relevant for future climate change scenarios. This earlier timeframe could be more interesting for policy makers. On the other hand, earlier timeframes could reveal minor changes that might prove negligible compared to 2070–2100.
Review: towards a better understanding of adaptation to climate change: Francophonie gives a helping hand
By Denis Sonwa

In issue No. 85 of the Liaison Énergie-Francophonie newsletter, IDDRI (Paris-France) and IEPF (Québec-Canada) published a 168-page document that covers several aspects relating to climate change adaptation. Prepared in the light of the 2009 Copenhagen conference, and the processes that will follow it, the directors of IDDRI and IEPF say this special issue can be seen as Francophonie’s way of helping to broadcast the concept of climate change adaptation. In the editorial, Raphaël Bille and Alexandre Magnan explain that the issue contains five parts, which consider cross-cutting and thematic aspects and case studies on different geographic scales. The five parts are (1) the scientific and political context; (2) the key notions of climate change adaptation; (3) tools for adaptation; (4) sectoral approaches; and, (5) debriefing. These chapters, written in a style accessible to the general public, are aimed at all those interested in climate change adaptation issues.


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Review: Adaptation to climate change in forest management: proposals from colleagues in Canada
By Denis Sonwa

Climate change adaption in forest management is an increasingly relevant issue. However, addressing this point is quite a challenge. David Spittlehouse (Senior Research Climatologist, Research Branch, B.C. Ministry of Forests) and Robert Stewart (Climate Change Research Co-ordinator, Canadian Forest Service, Natural Resources Canada, Ottawa) discuss this subject in an article published in the ‘BC Journal of Ecosystems and Management’ and suggest ways forward. In a four-step framework, they give an example of what could be done to integrate climate change adaptation into forest management. The first step consists of defining the issue, the second step involves assessing the vulnerability to change, the third step involves the adaptation actions to be taken now, and the last step consists of actions required for the future. Although their examples may be in the Canadian context of British Colombia, the same approach to integrate adaptation aspects into forest management can very easily be applied elsewhere. The authors also summarize adaptation actions in forestry. They discuss (1) gene management; (2) forest protection; (3) forest regeneration; (4) silvicultural management; (5) forest operations; (6) non-timber resources; and, (7) park and wilderness area management. In each case, the authors try to provide guidelines based on work already carried out in the field of forestry. This article can provide ideas on how to make the adaptation to climate change more specific in terms of forest management, and suggests ways in which forest vulnerability can be dealt with.

Further resources

UNFCCC 2010 Synthesis report on efforts undertaken to monitor and evaluate the implementation of adaptation projects, policies and programme and the costs and effectiveness of completed projects, policies and programme, and views on lessons learned, good practices, gaps and needs. UNFCCC, Bonn, Germany. http://unfccc.int/resource/docs/2010/sbsta/eng/05.pdf (7 November 2010).


