CarboAfrica Training Courses
BIOMASS SESSION

Context:
The objective of CarboAfrica is to set up a first attempt of a greenhouse gases (GHGs) fluxes monitoring network of Sub-Saharan Africa, in order to quantify, understand and predict, by a multi-disciplinary integrated approach, Sub-Saharan GHGs emissions and its associated spatial and temporal variability. Specific regional studies in key areas are also conducted, considering carbon sources and sinks, assessing the impact of the current land use change, and evaluating the potential for carbon sequestration in Sub-Saharan Africa. Within this research framework, CarboAfrica develops communication and capacity building activities, dedicated in particular to African students, institutions and stakeholders.

Aim:
The aim of this training course is to propose a state of art in the field of biomass assessments in natural ecosystems (forests, agro-forests, savannah, etc.). It will mainly focus on methodological aspects such as sampling, analysing raw data, finding and fitting appropriate equations, calculating confidence intervals, validating models. The course is divided into two parts: (i) two days and a half are devoted to general lectures and the sessions will be opened to every student or professional with an interest of these topics; (ii) the remaining time is devoted to the practices (field and computer) and sessions are opened to a limited number of persons (12). The course is organized by FAO, Cirad, UR2PI and the University Marien Ngouabi of Brazzaville. It will be held in Brazzaville, from the 10th of December to the 14th 2007.

Program (temporary, to be finalized in December):
Day 1: Morning (W. Kutsch) – Ecosystem functioning, principles, main drivers, role of the biomass. Afternoon (B. Zeller) – Main biogeochemical cycles (carbon, water and nutrients) and role of the biomass
Day 2: Morning (A. de Grandcourt) – The carbon cycle, main components and associated errors. Afternoon (J-N Marien) – Carbon markets, what is required?
Day 3: Morning (L. Saint-André, C. Jourdan and N. Picard) – Biomass assessment, methodologies. Afternoon – Computer training (data analysis, L. Saint-André and N. Picard)
Day 4: All the day - Field training (with the staff of UR2PI).

Day 5: All the day - Computer training (model fitting, confidence intervals, L. Saint-André and N. Picard)

Audience:
The course is at the graduate level, and aimed at PhD students and professionals with an interest in the current state of the field of biomass assessments.

Literature:
We will provide a syllabus with lecture notes, hand-outs from presentations and key papers. The course will also be available as an E-Learning training course on the FAO website.

Prerequisites:
Essential: BSc or equivalent degree in Biological Sciences.
Preferably: some courses taken or knowledge of statistics (regression).
Each applicant for the practice sessions should provide a CV and a half-page of its own research/development project. The selection will be based on these documents. They will be asked for a presentation of their work.

Lecturers (temporary list, to be completed):
Agnes de Grandcourt, Cirad
Werner Kutsch, MPI
Laurent Saint-André, Cirad
Nicolas Picard, Cirad
Jean-Noel Marien, UR2PI
Bernd Zeller, Inra
Christophe Jourdan, Cirad

Language:
French and English (the presentations will be printed in the two languages, oral communications will depend on the lecturer).

Contact:
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