Food Security and Climate-Smart Agriculture

25 September 2012



Prof. Dr. Martin J. Kropff
Rector Wageningen University and Research Center, The Netherlands
Contribution to G20 meeting Agricultural Chief Scientists, Mexico

The world faces major challenges like safe and healthy food for all and a changing climate in a context of a growing demand for biomass in the green economy and a growing need to safeguard our natural environment. The agro-food domain will play a major if not decisive role in meeting these challenges. Our agro-systems need to be geared to produce enough food to feed the world in the years to come.

The systems must be robust and resilient to withstand shifting and volatile conditions. Green-house gas emissions need to be reduced or reverted where possible. Climate-smart agriculture aims at combining these goals and reach a triple win: enhanced productivity, increased resilience (adaptation) and a reduced contribution to climate change through mitigation.



As second exporter of agri-food products in the world, the Netherlands is a major global player in the agri-food domain. Consequently, the Netherlands acknowledge the need for a climate-smart agriculture policy, as exemplified by the organization of the first policy conference on Global Smart Agriculture in The Hague, and the first scientific Global Smart Agriculture Conference in Wageningen. The policy conference calls for policy action like focused and joint research, and the science conference identified scientific priority actions, calling upon the scientific community to take this up. The recommendations are summarized in the Wageningen Statement. The policy conference was followed by a second one in Vietnam earlier this year, while the next science conference will be organized at UC Davis early next year.



The domain of Wageningen UR (food and food production, the living environment and health, lifestyle and livelihood) suits the global challenges and the Dutch economic activities well. Technology in combination with natural and socio-economic sciences, access to many relevant expertises, a knowledge chain ranging from fundamental to applied, a strong international focus, many international students and a turn-over in the range of that of the CGIAR makes Wageningen UR a major player in this field. Wageningen UR does so by teaming up with many international networks and partners both in developed and in developing countries. TEAM-Africa is an example, where in a ministerial meeting in Kampala organized by RUFORUM the importance of tertiary agricultural education was acknowledged. The initiative has grown to a RUFORUM/ANAFEE/CAADP led program, supported by the World Bank and other donors.



Wageningen UR also believes in an intensive collaboration with the CGIAR by taking part in the CRPs or link CRP-research to on-going research of Wageningen UR and its partners. The reform of the CGIAR offers new possibilities that should be fully explored and exploited.

Within Europe, forces are linked to reach synergism and critical mass. The new 80 billion euro research program, Horizon 2020, will focus on challenges rather than on themes or domains, fitting well the climate-smart agriculture policy. Most of the European S&T funding, however, is spent on a national level rather than via the framework programs. The Joint Program Initiatives (JPIs) are initiated to stimulate national research councils to join forces in order to again reach synergy and critical mass. The JPI on food security, agriculture and climate change (FACCE) is the place where climate-smart agriculture topics are dealt with. FACCE is very much dedicated to reach out and link up with global players like the Global Research Alliance (GRA), and a joint call is being prepared.

A Dutch approach to join forces is the 'golden triangle', where the government, industry and scientific organizations closely collaborate to reach innovation. This approach is the base of the so-called 'top-sector' policy, where selected innovative sectors –among which the agri-food sector- are specifically stimulated and supported. Implementing this approach in an international context could be very rewarding. At high global level, the G20 embraced the food security agenda. Major private companies joint forces and formed the B20, again with food security on their agenda. We may need the major scientific players to join forces and form an S20, complementing the golden triangle in an international context. The current MACS meeting may well be the place where such a collaboration comes into existence.

