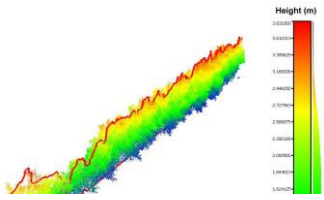
INNOVATIONS PROGRAMME AT GFIA 2014

GFIA 2014 featured over 100 presentations across four Innovation Theatres. Delegates agreed the choice of content was extraordinary; many innovations were ground-breaking and the quality of presentations were of an exceptional standard. GFIA 2015 will build upon this success and ensure the Innovation Presentations and Round Table Discussions will host the thought leaders that are shaping the future.

If you are interested in participating as a speaker in GFIA 2015 please contact Nicola Davison on n.davison@turretme.com



3D modelling of crops

Harvesting data from crops for more sustainable farming

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Accordion

How algae can help tackle climate change

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Agricultural Information

Harnessing the power of data in agriculture

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Agri-Fin Mobile

New mobile money program to increase smallholder productivity

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Agrilution One

Turning consumer to farmer: growing food in the closet

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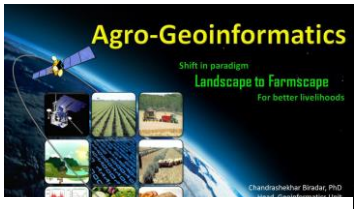

Agro-Geoinformatics

A shift in paradigm from landscape to farmscape for ensuring food security

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Agro-ICT solutions for

Integrated farm-, advisory-management including stakeholder needs

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AIRRIA

Turning cattle and poultry manure into food, fuel and water without any waste

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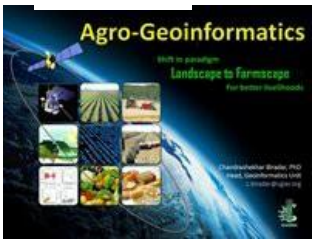
Innovation: Agro-Geoinformatics



Speaker: Dr Chandrashekhar Biradar, Head-Geoinformatics Unit, ICARDA
Organisation: ICARDA
Country: Jordan

Geospatial technologies are becoming an integral part of solving the food security equation from an integrated research and development, aid intervention and delivery programs, policy, and outreach. A recent advance in geoinformatics technology has opened new avenues for integrated agro-ecosystems research and applications. The shift in paradigm from landscape level studies to farmscape to underhand the matric of granularity within and among the small holder farming systems in a participatory and integrated agro-ecosystem approach to improve capacity and processes which leads to cross-fertilization of diverse interests and, by way of spill-overs, to the development of sustainable, imagery-based farm information services at a higher spatial scale from effective interventions to ex-ante analysis.

Website: www.icarda.cgiar.org

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Innovation Profiles

INNOVATIONS THEATRE A

Presentation ID: **A1**

The Netherlands and global food security

Speaker: Dr. Marcel Vernooij, Ministry of Economic Affairs, The Netherlands
Country: The Netherlands

Achieving food security for all is one of the great challenges of our time. The Netherlands believes that the most effective way to achieve this is to invest is agricultural development. Agricultural development is a driver for economic growth that can provide people with incomes, productive employment and access to healthy and nutritious food. Innovation will be key to make agricultural development work all around the world. The overall objective is to increase sustainability: agriculture needs to be climate-smart and eco-efficient. The Netherlands has vast (inter)national experience with market-based innovations, combining the strength of the private sector, research institutes and governments.

Presentation ID: **A2**

Greenhouses - the inside story

Innovation: Water efficient greenhouse: sustainable horticulture in arid regions
Speaker: Dr Jouke Campen, International project manager, Wageningen UR Greenhouse horticulture
Country: The Netherlands
Website: www.wageningenur.nl

Fresh food production is becoming a major issue all around the world. Countries are considering their food security in terms of their ability to provide the population with enough food. Secondly food safety plays an important role. The use of chemicals to prevent diseases should be abandoned since it directly influences the health of the people. Finally sustainability is an important issue, which has to be addressed when food production is considered. The use of water and energy has to be limited since these are scarce commodities. Protected horticulture, production in greenhouses, is known to be able to address these three issues. Production increases, less pesticides are used and the use of water is decreased. Protecting the crop from outside conditions (wind and excessive solar radiation) increases water use efficiency. Taking the plants out of the soil is the next step in the water saving strategy. The final step is addressing the cooling by using mechanical cooling instead of evaporative cooling. This will result in water saving of more than 95% compared to the open field production.

Presentation ID: **A3**

Harnessing the power of data in agriculture

Innovation: Role of agricultural information for policy on food security and development of sustainable agriculture
Speaker: Dr George Beers, Project Manager, Wageningen UR
Country: The Netherlands
Website: www.wageningenur.nl

Growing population and food consumption in a context with limited resources require intelligent agricultural food policy for managing the use of resources in a sustainable way. Effective policy can only be developed on the base of reliable information. Obtaining reliable agricultural information is a major challenge and can only be based on sound methodology and appropriate use of the methods and strong quality management. Using IT technology gives opportunities for efficient collection of reliable data at farms and markets. Wageningen is supporting the development and implementation of the Agricultural Information Centre for the Kingdom of Saudi Arabia. Experiences and first results of this promising new infrastructure to support Saudi agricultural policy will be presented.

and environment as well as in maintaining the sustainability of rural areas by launching new technological

Presentation ID: **B5**

A shift in paradigm from landscape to farmscape for ensuring food security

Innovation: Agro-Geoinformatics
Speaker: Dr Chandrashekhar Biradar, Head-Geoinformatics Unit, ICARDA
Country: Jordan
Website: www.icarda.cgiar.org

Geospatial technologies are becoming an integral part of solving the food security equation from an integrated research and development, aid intervention and delivery programs, policy, and outreach. A re advance in geoinformatics technology has opened new avenues for integrated agro-ecosystems researc and applications. The shift in paradigm from landscape level studies to farmscape to underhand the mat of granularity within and among the small holder farming systems in a participatory and integrated agro ecosystem approach to improve capacity and processes which leads to cross-fertilization of diverse inter and, by way of spill-overs, to the development of sustainable, imagery-based farm information services a higher spatial scale from effective interventions to ex-ante analysis.

Presentation ID: **B6**

Using your Raspberry Pi for web-enabled irrigation

Innovation: Low Cost RPi automated Irrigation kit
Speaker: Donald Byamugisha, Founding Partner, BITEPH Strategic Consulting
Country: Uganda
Website: www.biteph.com

Our project is designed to develop an automatic irrigation system which switches the Pump on or off acco to moisture content of the soil. In the field of agriculture, the use of proper irrigation methods is importan The advantage of the using this system is that it's cheap, reduces human intervention and ensures good irrigation. The system can be enhanced by using GSM technology such that whenever the pump switches on or off, an email or SMS is delivered to the concerned person regarding the status of the pump. With thi technology the pump can also be controlled via SMS or smart phone.

Presentation ID: **B7**

The platform that connects agricultural stakeholders

Innovation: mLouma
Speaker: Aboubacar Sidy Sonko, Founder & CEO, Amandjine Consulting
Country: Sénégal
Website: www.mlouma.com

Mlouma is a web and mobile service which connects farmers to food purchasers by displaying real-time market prices and localizations. With our innovation we are among the winners the mAgri Challenge 2013 (http://www.infodev.org/mAgri) launched by InfoDev (a branch of the World Bank). Our project has a sub-regional focus (West Africa) because the majority of the population in each of these countries is involved in agriculture and face problems selling their produce. Our solution bring together in real time thousands of producers and buyers. Our guiding principle is to offer to Africans (particularly in rural areas) the opportuni to use technology as a lever for

Presentation ID: **B5**

Dr. Chandrashekhar Biradar

Head-Geoinformatics, International Center for Agricultural Research in Dry Areas (ICARDA), **Jordan**

Dr. Chandrashekhar M. Biradar (Chandra in short) is agro-ecosystem ecologist with remote sensing specialization, working as Head of the Geoinformatics and Principal Scientist at the International Centre for Agricultural Research in Dry Areas (ICARDA), one of the 15 research centre of the Consultative Group on International Agricultural Research (CGIAR). Formerly he was a research professor at the Department of Microbiology and Plant Biology and Manager, Centre for Spatial Analysis, College of Atmospheric and Geographic Sciences, University of Oklahoma, Norman, OK. His current research interests include global vegetation remote sensing; ecology and vegetation phenology, forest and biodiversity, land use and land cover change, livestock feedstock inventory, climate change and ecology of infectious diseases, leads to mapping global food and environmental security,. Over the last 15 years, he has played a key role, as one of the lead researchers, in producing the first satellite sensor based global croplands, irrigated and rainfed areas, cropping intensity, LULC maps. In addition, extensive use of spatial modelling, decision tree algorithms, and high resolution data for agro-ecosystem applications. He has played a key role in conceptualization and development of geospatial data gateways. Now leading and working to set up an integrated remote sensing observation system consists of the optical, thermal, hyperspectral, neutron sensors and climate variables to study the carbon, water and energy fluxes of the grassland ecosystems.