



2E. Engage and Empower rural communities to be the drivers of social-economic development through water

OTS 2^E3 : Monday 21 March, 13h30-15h, salle 8

INNOVATIVE TECHNOLOGIES AND PRODUCTIVE WATERS

Ordinary Thematic Session number 3, from the Group 2E :

Media-friendly session Title/ Titre de la session adaptée aux médias *	Innovative technologies and productive waters to empower rural communities
Media-friendly session summary (3-5 sentences)/Résumé de la session adapté aux médias (3-5 phrases) *	In this session, the panelists will provide insights, and highlight examples, of how smallholder farmers can be empowered through the introduction of innovative irrigation and water management technologies and knowledge, combined with innovative education, communication, financing and institutional platforms, to secure sustainable and equitable year-round access to water, put it to productive and profitable use, and adapt-to-climate-change, all while maintaining their water resources.
Keywords to describe the session's main elements (5 keywords max.)/ Mots-clés pour décrire les principaux éléments de la session (5 mots-clés maximum) *	Innovative technologies and institutions, Circular food systems, water saving, farmer-led-irrigation, innovative education
Description of the session (250 words max.). It should include objectives and expected outcomes and/or questions that the session intends to answer/ Description de la session (250 mots maximum). Elle doit inclure les objectifs et les résultats attendus et/ou les questions auxquelles la session se propose répondre. *	Climate change is further debilitating the ability of smallholder farmers in sub-Saharan Africa to survive and thrive. Over dependence on low-value rain-fed crops has already led to low incomes and long hungry seasons. And now climate change is disrupting seasonal rains, extending dry seasons, and increasing the frequency and intensity of droughts and floods—making traditional rain-fed farming even more challenging. Access to affordable water-efficient irrigation technologies, water management methods and climate smart tools, information, institutions and practices are critical for increasing the sustainable incomes and climate resilience of smallholder farmers, while maintaining the health of critical water resources. New technologies including irrigation, water management, information, communication and financing technologies, and agricultural innovation platforms, are accelerating what is possible, and demonstrating how they can empower smallholders and their communities. In this session we will explore how the introduction of new affordable and sustainable irrigation and water management technologies, and the near real-time monitoring of soil moisture and nutrient content,(and understanding of soil, moisture, nutrient dynamics) combined with innovative education, communication, financing and institutional platforms, can enable smallholders to

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	dramatically increase their yields and incomes, and their ability to adapt to climate change, while preserving their local resources and ensuring the inclusiveness of the impacts.
Name of session coordinators/Nom des coordinateurs de session *	FISHER Martin (KickStart International, CEO, USA) BJORNLUND Henning (IWRA, Vice-President, UniSA, Professor, Australia) ORANGE Didier (IRD, France)
e-mail *	martin.fisher@kickstart.org henning.bjornlund@unisa.edu.au didier.orange@ird.fr
Organization name and type/Nom et type d'organisation *	KickStart International, private company IWRA, International association IRD (French National research institute for sustainable development), French public research institution
Country/Pays *	USA Australia France
Other associated organizations and stakeholders/Autres organisations et parties prenantes associées	KickStart: Hichem Mihoub hichem.mihoub@kickstart.org IWRA: Ignacio Deregibus i.deregibus@iwra.org SIF: Laura Le Floch lefloch@secours-islamique.org VERGNET-HYDRO: Romain Dubreuil r.dubreuil@vergnet-hydro.fr ESF (Electriciens Sans Frontières): Jean Comby jeancomby@orange.fr AMETEN : Ludovic Le Contellec l.lecontellec@ameten.fr COSTEA (INRAe, AVSF, BRL ; Algérie, Sénégal, Cambodge): Sami Bouarfa sami.bouarfa@inrae.fr , Katia Roesch k.roesch@avsf.org , Eric Scopel eric.scopel@cirad.fr , Caroline Lejars caroline.lejars@cirad.fr , Benjamin Vennat benjamin.vennat@brl.fr , Sidy Seck sidysecksn@yahoo.fr Santé & Territoires (CIRAD, ISRA, ...): Raphael Duboz raphael.duboz@cirad.fr , Amandine Adamczewski-Hertzog amandine.hertzog@cirad.fr IRD / CERAAS : Vincent Vadez vincent.vadez@ird.fr , Ndjido Kane ndjido.kane@isra.sn LATEU (IFAN, UCAD): Nouhou Diaby nouhou.diaby@ucad.edu.sn INOWASIA (Erasmus+): Ignasi Rodriguez-Roda ignasi.rodriguezroda@udg.edu , Antonina Torrens antoninatorrens@ub.edu , Magali Gérino magali.gerino@univ-tlse3.fr , Didier Orange didier.orange@ird.fr , Coco Gonzalez (PI INOWASIA) coco.inowasia@udg.edu
Duration of the session (max. duration allowed is 90 minutes)/ Durée de la session (la durée maximale autorisée est de 90 minutes) *	90 mn



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Draft session schedule (expected times for presentations, panel discussions, etc.)/ Projet de programme des sessions (heures prévues pour les présentations, les discussions de groupe, etc.) *	<ul style="list-style-type: none"> - Welcome and introduction [10'] - 5 introductions of 5 mn based on examples [25'] - Discussion Panel on questions raised in the assembly [50'] - Key messages and Conclusion [5']
Expected panellists / speakers / moderators/ Panélistes / intervenants / modérateurs attendus *	<p>Speakers:</p> <ul style="list-style-type: none"> - Martin Fisher (KickStart International, USA) Scaling low-cost smallholder irrigation across sub Saharan Africa : what works and why - Henning Bjornlund (IWRA and UniSA, Australia) Transforming small-scale irrigation schemes in southern Africa' (TISA) - Laura Le Floch (Secours Islamique France, Pakistan) Strengthen the resilience of vulnerable communities facing climate change, through sustainable WASH and agriculture solutions (Pakistan, Tharparkar disctrict) - Romain Dubreuil (VERGNET HYDRO, France; RDC) Construction of hybrid solar-powered water systems for the NTSIO agroforestry project (DRC) - Didier Orange (INOWASIA, IRD, France; Vietnam, Laos, Cambodge) INOWASIA, an innovative education platform promoting the Living Lab approach <p>Panelists:</p> <ul style="list-style-type: none"> - Moderator: Martin Fisher (KickStart, USA), confirmed - Henning Bjornlund (IWRA and UniSA, Australia), confirmed - Laura Le Floch (SIF, France; Pakistan), confirmed - Romain Dubreuil (VERGNET-HYDRO, France; RDC), confirmed - Didier Orange (INOWASIA, IRD, France; Vietnam, Laos, Cambodge), confirmed - Ludovic Le Contellec (AMETEN, France; Mauritanie), confirmed - Jean Comby (ESF, France; Burkina Faso, Bénin, Togo), confirmed
CGs contributions received that will be included in the session (with a word or two about how they are included)/CGs Contributions reçues qui seront incluses dans la session	N/A

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(avec un mot ou deux sur la façon dont elles sont incluses)	
Potential overlaps with other OTS/Possibles chevauchements avec d'autres OTS	En lien avec les travaux du GA 1F, nécessité d'accroître la connaissance des populations sur les effets du changement climatique et sur les techniques d'adaptation, respectueuse de l'environnement. En lien avec les travaux du GA 1A et GA 2A, affirmer l'eau comme étant un bien commun et un droit humain, et garantir l'approche basée sur les droits humains dans la gestion de la ressource..
Missing stakeholders/Parties prenantes manquantes *	N/A
Intended audience and expected minimum and maximum number of participants/ Public visé et nombre minimum et maximum de participants attendus *	All stakeholders concerned by the nexus Food/Health/Energy/Water saving. It will attract all people working on agronomy, ecology, hydrology, ecohydrology and nature-based solutions within academic and civil arenas, in order to reinforce the cooperation between actors of the Research and the Development.
Session Format/Logistics required (e.g. preferred room type, translation, audio, and video facilities, recording, stationery, printed material, special equipment, etc.)/ Format de la session/logistique requise (par exemple, type de salle souhaité, traduction, installations audio et vidéo, enregistrement, papeterie, matériel imprimé, équipement spécial, etc.) *	Translation, audio, and video facilities, recording, stationery, (and printed material if possible)
Expected outcomes, impacts, and follow-up linkages with events and initiatives after the Forum/Résultats attendus, impacts, et liens de suivi avec les événements et initiatives après le Forum *	<p>This session will advocate for a paradigm change to ensure the sustainable intensification of agricultural, food and nutritional security in sub-Saharan Africa through the sustainable use of surface and groundwater by smallholder farmers to enhance their productivity and incomes through introduction of new technologies.</p> <p>The key political message will be: Empower smallholder farmers in SSA through the introduction of new technologies, new policies, innovative education and systems that enhance sustainable and equitable access to, and use of, groundwater and surface water for productive and sustainable smallholder farming, through the following concrete actions:</p> <ol style="list-style-type: none"> 1. Introduce country level policies, education, structures and funding that promote the widespread up-take and use of technologies that enable smallholders to sustainably use groundwaters and surface waters to irrigate their farms and increase their year-round yields and incomes. 2. These may include: Adjusting duties/taxes on relevant water/irrigation technologies; Incorporating training on sustainable

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	<p>irrigated farming and water use into agricultural curricular; Widely promoting, with extension and demonstrations, the use of sustainable irrigation and water conservation technologies and practices through innovative education in the universities (Problem Based Learning #PBL, Living Lab #LL, Nature Based Solutions #NBS); Providing ‘smart subsidies’ to increase the uptake and use of relevant smallholder irrigation and water monitoring technologies; Providing ‘loan guarantees’ to financial institutions that finance smallholder irrigation; Creating new policy frameworks and/or institutions that promote, monitor and/or regulate the sustainable use of local water resources, etc.</p> <p>3. Advocate for the improvement of global and local water governance in conjunction with structures dealing with food and agriculture issues, through the creation of an intergovernmental structure on Water&Food as part of the UN and approved by Member States.</p>
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