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Organization of the  
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Investing in rural people



World Food  
Programme

# Land



# Water Days 2015



## Synthesis Report



**Land**  **Water**  
Days **2015**  
**Synthesis Report**

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## Executive summary

As World leaders forged two new big deals in late 2015 – the Sustainable Development Goals (SDGs) and the Climate Change Agreements – over 200 experts and technical officers working in fields related to land and water management, participated in the 3<sup>rd</sup> Land and Water Days held at the Food and Agriculture Organization of the United Nations (FAO) Headquarters in Rome, from 10 to 12 November 2015. The three-day event was organized by FAO, in collaboration with the International Fund for Agricultural Development (IFAD) and the World Food Programme (WFP), with support from a Steering Committee composed of dedicated colleagues from the three Rome-based agencies (RBAs). The timing of the event allowed participants to reflect on their future work programme as they exchanged experiences across projects and regions and debated *how to reach effective and lasting impacts for land and water actions*.

Three main overarching themes – **governance, integrated approaches and climate change/risk and resilience** – were at the centre of the three-day event. Experts from across FAO, IFAD, WFP Headquarters and Country Offices, and project partners, shared the challenges they face in linking land and water *governance* across scales (from local, to national, to global levels), presented the different integrated approaches they developed and are currently working on, and discussed the ever growing challenges faced by the agriculture sector in view of the new realities of *climate change and resilience building*.

Participants raised many issues and concerns regarding the complexity of achieving the highest awareness possible in order for policy makers to give priority to *water scarcity and land degradation* to ensure sustainable food production, as these are receiving inadequate attention compared to some other sectors that receive subsidy, such as energy and health. Several existing approaches, concepts, frameworks, guidelines, data portals and assessment tools were presented.

Knowledge gaps were identified; in particular the need to ensure that all technical knowledge be “*people-centred*”. As such, the real challenge is to allow existing tools and knowledge to be linked strategically to facilitate better integration between bio-physical and socio-economic information. Stakeholder engagement and participation, as well as negotiation amongst different interests, that are not limited to the agriculture sector, are central to addressing land and water issues. Finally, it is important to communicate effectively with policy makers to ensure more effective policy reforms and programmes.



The exacerbation of the linkages between water scarcity and land degradation, food security and nutrition, with recurrent shocks and emerging issues, such as human mobility and migration, rural youth unemployment, and lack of social protection, were among the topics debated needing more attention. In fact, when designing projects, it is crucial to take into account the complexity of the situation in a given context and use a multi-sectorial approach in mainstreaming land and water actions. As such, member governments and donors are looking to RBAs to develop innovative tools including the use of GIS mapping, remote sensing, spatial data and modelling techniques, to design incentives for farmer’s increased productivity and ecosystem protection, to use scenario and pathways development for project design, and to facilitate consensus-building and conflict management among diverse stakeholders. The direct field knowledge of FAO, IFAD and WFP, through their local and community programmes, has exemplified readiness for up-take and scaling-up – a potential for stronger collaboration among RBAs technical officers working with different ministries and policy-makers. Together, they can have one voice and inform government actions to reform their policies on land, tenure and water management, and to have a more solid impact on people’s food security and nutrition.



Minimizing and managing *trade-offs* among different priorities and maximizing *synergies* among different sectors should be taken into account, bringing new designs of incentives mechanisms and innovative technologies such as the solar irrigation systems. Hence, technical experts with the knowledge of integrated approaches and tools, need to be enabled to appear in the frontline to effectively support national and local actions on the ground.

Developing new sets of soft skills, in addition to technical skills, should be fostered in order for technical experts working on projects on the ground to become more effective: in particular, *reaching out and networking, facilitating negotiations and partnering* with key stakeholders.



As such, joining networks and platforms will be essential for both technical officers from headquarters and from field offices. A majority of the participants are members of the FAO *Technical Network on Land and Tenure* as well as the *Technical Network on Water*, both coordinated by the Land and Water Division. The Technical Networks served as a good mechanism in the preparation of the Land and Water Days and will be instrumental for follow-up engagements. Participants endorsed that the Technical Networks be strengthened and allowed to grow, in order to open membership to IFAD and WFP technical officers, and potentially to key external partners. The Networks will serve as the hubs for information exchange and enhanced knowledge sharing, following the recommendations of the Land and Water Days. A proposal to join up the *Technical Network on Water* and the *Water Platform* was specifically put forward.

The running slogan of the 3<sup>rd</sup> Land and Water Days 2015 - *Reaching effective and lasting impacts for land and water actions* – allowed participants to share and learn on the causes behind project mistakes which do not necessarily result from technical issues of land and water sectors, but are mostly linked to social and human aspects that are often overlooked in technical projects. The participant's evaluation of the event expressed very high satisfaction regarding the way the event was organized, with good participation especially from field officers, and in particular from Africa and the Near East regions. They appreciated the vibrant debates, learned about integration, and especially valued the networking experience. Their take away messages mostly indicated a need for people-centred planning, a need to harmonize the many integrated approaches discussed and ensure continued experience-sharing in order to learn from each other.



The key messages and recommendations described in this document are specific to each of the three main themes of the event: priority areas for action, focusing on a range of concrete suggestions, including the need to put people at the centre of any land and water-related initiatives; more integration and cross-fertilization between existing approaches; more effective, targeted collaboration between RBAs in countries and in the field; extended partnerships with other platforms and with the private sector and civil society; the need to address land and water issues at all scales; more systematic use of existing assessment, mapping and planning tools; and the use of FAO Technical Networks for further dissemination of good practices and knowledge exchange.

The detailed reports from over 50 sessions and side events that took place during the Land and Water Days 2015 have been collected in the extended report. The key messages that *look forward to the future vision of land and water* described below were elaborated from the highly participatory and active discussions and debates from the many sessions and side events, as well as from the results of the pre and post-events organized by the two Technical Networks – *Land & Tenure and Water*.

## Facts and figures about the Land and Water Days 2015



- 250 participants coming from 50 countries:
  - 70 representing FAO, IFAD & WFP Technical officers from the field and project partner organizations from different regions, with the highest participation from Africa and the Near East
  - 40 representing member governments, research and NGOs
  - 140 FAO staff and colleagues from IFAD and WFP
- 26 Plenary and Thematic Sessions
- A *Market Place* as a Knowledge Fair where colleagues were able to share and learn and showcase over 150 projects, partnership initiatives, case studies, thematic decision-support tools, technologies, methods, data portals and spatial data
- 14 side events around open spaces organized to discuss regional and national projects
- 3 Project *Think Shops* on project design and review and critics from about 10 remodelling experts
- A *World Café* interactive Session on Learning from mistakes
- A *World Café* interactive session on Regional synergies and priorities
- Several training and demonstration sessions of learning tools and guidelines
- Documentary film sessions and a Soils Film Festival
- A Catalogue of Land and Water tools and methodologies
- A Glossary of Technical Terms on Land, Tenure and Water
- A Joint Statement between the RBAs on identified joint actions on work related to land, tenure, soils and water contributing to the “One UN” spirit and efforts at the country level

**Find all of the above documents and Land and Water Days news, articles, interviews, web streaming, photos and detailed session reports online: [www.fao.org/about/meetings/land-and-water-days-2015/en/](http://www.fao.org/about/meetings/land-and-water-days-2015/en/)**



## Introduction

The Sustainable Development Goals (SDGs) and the Climate Change Agreements are considered a breakthrough for FAO, IFAD and WFP, since agriculture, food security and nutrition are embedded in many of the SDGs and recognized as priorities in the Climate Change Agreements. This implies a major role for these agencies to assist their member governments in achieving their national goals and commitments. FAO's Strategic Objectives are well aligned to the SDG process and contribute to 14 out of 17 SDGs. Land and water play an important role in achieving several of FAO's Strategic Objectives, in particular those related to sustainable agriculture, rural poverty reduction and resilience. WFP is aligning its new Strategic Objectives to the SDGs, in particular to SDG 2 on zero hunger and sustainable agriculture — also contributing to other SDGs through diverse interventions — and is already shaping its strategic and operational planning at the country level, linking national and global efforts to reach the objectives of SDG 2.

Collaboration among the RBAs, in particular at country and field level, is crucial to link these global targets that are owned by governments with land and water actions through projects on the ground.

This document aims to convey the key messages that emerged from the three main themes introduced on each day of the Land and Water Days 2015: Day One — *Land and Water Governance*, Day Two — *Integrated Approaches for Sustainable Land and Water Management*, and Day Three — *Climate Change, Risk and Resilience*. The Conclusion endorses the key messages as a basis of future collaboration among land and water practitioners that can serve as a new vision of land and water actions on the ground, to be re-visited for follow-up and to ensure their continuing relevance in the next Land and Water Days (expected for end of 2017).



## Theme 1: Land and Water Governance

### Highlights

There are different dimensions in the understanding of the word “*governance*”. There was a major debate on achieving a clear definition and understanding the context specificity of different governance situations, especially at the local level. However, the main challenge for land and water governance is how to link the technical issues of land and water with the ongoing political and economic dimensions influencing the rules and institutions that govern how, when and where people access and use land and water resources. It is necessary to reconcile the needs at different levels, bringing solutions to the right scale of intervention. Above all, negotiation and reaching agreements takes time.

The good news is that since the adoption of the *Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (VGCT)*, the discourse of land tenure and governance has changed from something that is difficult to touch and to talk about, to something that people can work on together. The VGCT are an international soft law instrument that was prepared through intergovernmental negotiations, which included the participation of civil society, private sector and research institutes. The VGCT and the Voluntary Guidelines for Small-Scale Fisheries are now being used as key instruments at the country level to highlight the importance of an *inclusive process* that considers all land and water users. There is more work needed in order to integrate tenure issues in wider development and water management projects, and particularly on agricultural investments.

A range of capacity development tools, including technical guides, have already been developed by FAO to support the application of the VGCT, and are being disseminated for wide

use of all RBA staff and partners. It is important to note that these tools and guidelines can only be widely used if they are first shared widely, demonstrated and explained, adapted to country realities, and tailored to local needs including translation into local languages.

Land and water governance are closely linked, especially at the local level. This is demonstrated when we map the people in the communities and existing stakeholders within the landscape and when we understand how they relate to each other in regards to their productive assets and natural resources.

IFAD projects in Swaziland, Chad and Mauritania exemplified how the growing competition for land and water can only be addressed comprehensively if the links between secure access to, and use of both resources are recognized, and the related governance issues are understood.



One very important lesson from the “*entente foncières*” (land use agreements) from the Mauritania IFAD support project, is the signing of agreements between local landowners and the landless. It is a unique demonstration of the ties of solidarity (social capital) existing in the project area, and above all, it provided access to land for those who were landless. Such agreements became a pre-condition for all water infrastructure development for the River Basin Authority. It also involved conflict management between pastoralists and farmers, as well as with the natural reserve management.

Land and water actions need to be coordinated and managed at the right level, considering conflicting interests between all users. FAO promoted the “Groundwater Governance – A Global Framework for Action (FFA)” jointly implemented by FAO, UNESCO IHP, the International Association of Hydrogeologists (IAH), and the World Bank, financed by the Global Environment Facility (GEF), that aims to raise awareness and engage stakeholders at all levels, given the current limited governance setup. The FFA is the starting point of the dialogue and decision-making processes among stakeholders’ competing interests. It creates a basis for groundwater governance, proposes strengthening the institutions, linking other sectors to mainstream groundwater, and prioritising actions, investments and incentives. FAOs role as a facilitator of the FFA processes can apply the Participatory and Negotiated Territorial Development Approach to set the stage for joint action. It would be important to tap the potential of water user associations on the negotiation process.

## Challenges

The fruitful cross-learning from different countries including Egypt, Jordan, Morocco, Rwanda, Spain, Tunisia and Yemen, allowed participants to reflect on the gaps of the FFA in addressing financing tools and incentive mechanisms that can foster (or worsen)

groundwater governance. Participants highlighted the dramatic impact of the ongoing crises and political instability in many countries on groundwater management that now calls for urgent response.

Scaling up of local land and water governance solutions like the signed agreements as a main tool, may face constraints as we bring them at a higher policy level, where land and water governance are often separated in different institutions and considering that they actually stemmed from customary practices that are not yet fully embedded in national legal frameworks. As a first step towards upscaling, the challenge is to make sure these local solutions are institutionalized and sustained.



A word of caution from the water management point of view: scaling-up good project practices for land and water governance and management should first ensure that local solutions are really sustainable with measured and monitored water depletion, water consumption, water salinity and evaporation levels. Good local water management may result in increased water consumption and may also result in reduced recharge of the aquifers. Increased water consumption

at the local level may lead to reduced levels of water availability for people downstream. Downstream versus upstream needs and consumptions should always be considered, which points back to the need for defining the right landscape scale for the governance solution, making sure water conservation and consumption is shared.

## Recommendations for future work

1. **Understanding different scales.** Participants identified that there are different ways and dimensions to coordinate land and water governance:
  - (i) Local/sub-national scale: Coordination through tenure systems, local governance;
  - (ii) National scale: Coordination through land/water/agricultural laws and policies;
  - (iii) River basin/regional scale: Coordination through basin treaties to include provisions on land;
  - (iv) Global scale: Coordination through normative policy processes, collaboration and knowledge sharing between *states and civil society*; and
  - (v) Across scales: Coordination through information flows, and coherence in laws and policies across the scales.

RBA colleagues should work together and further discuss the following questions: at what scale should these local solutions be developed to be sure we can address all needs and interests? What tools are needed for which scale?

As such, it would be useful to review different integrated resource management approaches and tools with a view of understanding at what scale they are most useful. It is important for the RBAs to use the results of the review and develop a common platform in order to address governments with a stronger and unified voice.

Additionally, there is a lack of cross-country experience knowledge sharing.

Local solutions are usually elaborated within a single country, and they remain within this national context. However, it is possible that the core issue could also be tackled through cross-border and regional level actions, for example on the use and management of water points along the transhumance corridors, in collaboration with sedentary farmers in Central Africa.



- 2. People-centred approaches and tools.** The success of the projects showcased by IFAD colleagues lays in the local solutions developed through facilitated dialogue processes at the local level, engaging different groups of stakeholders (i.e. local chiefs, local river basin authority, pastoral groups, local committees, women's groups, and the landless) and finally reaching consensual agreements that are formalized. As such, in order to ensure a people-centred approach, land and water experts are encouraged to systematically use stakeholder mapping and analysis tools, overlapped with mapping of status and availability of land and water resources, when initiating projects. Communities and institutions should be mapped as well, and their power asymmetry should be understood along with interests, drivers and incentive factors that are critical for project success. We need to understand that natural resources are not only used for agriculture purposes and that most of the conflicts are due to competition between agriculture and non-agriculture users.



## Theme 2: Integrated land and water management approaches

### Highlights

FAO's common vision for Sustainable Food and Agriculture (SFA) is the overall framework for its Strategic Objective 2, which aims at making agriculture, forestry and fisheries more productive and more sustainable. The SFA framework, based on five key principles – *Natural Resources*, *Resource Use Efficiency*, *Livelihoods*, *Resilience* and *Effective governance* – is considered the overarching framework to help mobilise effective action towards the achievement of the SDGs. It was offered as a starting point to kick-start the presentation of eight integrated approaches promoted by FAO and WFP, including: 1) Sustainable Land Management (SLM) at catchment level, 2) Watershed Management, 3) Community-based participatory Watershed Development (promoted by WFP), 4) Forests and Landscape Restoration (FLR), 5) Ecosystem Approach to Fisheries and Aquaculture, 6) Participatory and Negotiated Territorial Development (PNTD), 7) Agro-Ecology and 8) Source-to-Sea.

There was a clear indication that all integrated approaches that were presented and debated share the same common principles but with different weights, and their entry points, scales or thematic focus (applications), can differ. A clear common thread emerges from the approaches presented, and specifically, the need to work at a landscape level involving multi stakeholders and design dialogue processes, and the need for a systematic analysis. One of the differences is whether or not they put people (community management, territorial planning) or natural resources at the centre (agro-ecology, source to sea). Another key element that emerged from the discussion is that we do not “start from scratch”. Furthermore, there is a need to ensure that the various concepts included in different approaches that contain similar elements, do not confuse the key audience with excessive messages promoting essentially the same thing.



One example of FAO's attempt to deliver coherence in regards to its inter-related Major Area of Work (MAW) on ecosystem services and biodiversity (ESB) was the launch of the ESB Web Portal (<http://www.fao.org/ecosystem-services-biodiversity/en/>) which gathers all FAO work on ecosystem services and biodiversity and intends to be disseminated to a large audience. This web Portal is unique because, for the first time, FAO has gathered all its work on ESB to show how agriculture can have a positive impact on ESB. ESB issues are usually perceived as solely environmental issues, while in fact, agriculture holds part of the solution and should be a major part of the debate.

The integrated land and water approaches presented and debated, touched upon many issues in regards to working across environment and agriculture sectors. It is important that land and water sectors should also link with the energy sector. In this context, the Water-Energy-Food Nexus envisaged, in practical terms, to work towards a more coordinated management and use of natural resources across sectors.

One illustration of a positive policy outcome as a result of the use of the *Nexus* concept is shown on the UN Economic Commission of Europe (ECE), Water-Energy-Land Use-Ecosystems Nexus in Trans-Boundary Basins in Central Asia and Eastern Europe (Alazani/Ganikh (Georgia, Azerbaijan); Syr Darya (Kyrgyzstan, Tajikistan, Uzbekistan, Kazakhstan) and Sava (Slovenia, Croatia, Bosnia Herzegovina, Serbia, Montenegro). The Nexus approach improved cooperation across sectors and now serves as a good platform for inter-sectoral dialogue and for insight for cooperative solutions. A further example provided was the practical application of the water-energy-food nexus which resulted in an increased understanding of the prospects of the use of solar-powered irrigation systems in developing countries, such as the presentation from the FAO project in Mexico. The benefits of the use of solar energy for irrigation are now generating a lot of interest amongst governments, farmers and development agencies in the framework of national action plans, seeing it as a solution to climate change and to the lack of access to electricity and fossil fuel in rural areas. FAO conducted, earlier this year, the first-ever international UN workshop on this topic with over 60 experts from across the world which recalled international attention to the importance of solar powered irrigation.



The Nexus concept is also applied in the understanding of the positive and negative impacts of adopting solar powered technologies. The application of the European Union (EU) “*Biofuels sustainability criteria in the land acquisitions in Africa*” and the “*Safe Access to Fuel and Energy (SAFE)*” was debated within the context of nexus ideas.

The conclusion on the debates on the nexus ideas and what can be done to address the trade-offs and synergies between water, energy and food was that there are several factors to be considered in linking land and governance and in assessing the economic and environmental sustainability of technologies such as solar energy for water irrigation, includ-

ing solar tractor and hydroponics, land size limitation, funding resources and capacity of users.



A session was organized to discuss land use planning for sustainable agriculture and city and region food systems. An important consideration for land and water management is the rapid urbanization that calls for a strong urban-rural linkage and the role of the local authorities and local stakeholders, including small-scale farmers in sustainable land management. A recently developed concept on the City-Region Food Systems (CRFS) shows a way to improve local food

systems sustainability, while taking into account environmental and socio-economic aspects, encompassing a given geographical region that includes an urban centre and its surrounding peri-urban and rural hinterland. The concept promotes integrated land use planning at a regional landscape level, showing the flows of people, goods, resources, and ecosystem services that are integrally managed, and thereby provides a basis for sustainable and resilient livelihoods.

The presentation on *Planning for Growing Greener Cities* cited the Democratic Republic of Congo, that has allocated 2700 hectares of peri-urban land in over five cities, established a multi-stakeholder committee that aims to facilitate access and tenure to land and water, protect and increase the green spaces and develop sustainable crop production intensification practices. The city of Kigali in Rwanda also developed a city master plan that includes a land use planning in CRFS which highlights urban agriculture and horticulture.

The principles of negotiated land use planning process promoted within the Participatory and Negotiated Territorial Development (PNTD) highlight several considerations in order to go beyond the discussions on land suitability integration in the development plans including governance issues. There is a need to have transparent public participation mechanisms in the development plan processes taking into account the political influence and capacity of local authorities. It should also be iterative and flexible in order to adjust to stakeholder needs. As such, the facilitation of processes should also be considered.

Participants debated the need for incentives to support small-scale farmers in their transition to sustainable agriculture for ecosystem services. It started with the presentation of the concept of *Incentives for Environmental Services (IES)* that aims to help farmers overcome adoption barriers to transition to applying sustainable agricultural practices. These include: capacity building in technology and knowledge, financial support, fiscal incentives and Payments for Ecosystem Services (PES). The IES concept builds upon existing public programmes and private investments to improve their coordination for a more integrated landscape approach that provides multiple incentives to address threats to agro-ecosystem and support farmers to overcome adoption barriers.

Two IES case studies, from Columbia and Kenya, were presented to illustrate how the IES concept has developed since. In the Amazonian foothills of Columbia, the Public-Private IES Mechanisms have been used to provide incentives to farmers to overcome adoption barriers. While in Kenya, a coordinated public programme and private sector investment approach supports farmers in the Upper Tana Watershed and enables a continued water supply to Nairobi city and hydroelectric power stations. An important lesson to be learned from these two cases that emerged from the discussion, is that investing in environmental services, is investing in productivity, resilience, livelihood, and agricultural diversification. A session was organized to dive into the most up to date land and water assessment tools, methods and datasets for identifying vulnerabilities and sustaining rural livelihoods. Seven illustrative initiatives from FAO and its partners were presented:

1. DECCMA project: aims to understand the future risk zones for livelihood loss and food insecurity in deltas residents and identify their adaptive strategies and their ability to cope.
2. SWALIM: the Somalia Water and Land Information Management project provides high quality water and land information in order to support water and land resources development and management.
3. CLIMAFRICA project: assesses the related impacts on ecosystem and agriculture productivity from a seasonal to a decadal time scale and provides the relevant adaptation option mainly in terms of water use for irrigation and crop types.
4. “Using Remote Sensing in support of solutions to reduce agricultural water productivity gaps” project: generates a near real time validated pixel-based methodological framework to assess and monitor land and water productivity in order to assist farmers in obtaining more reliable yields.
5. “Analysis on water availability and uses in Afghanistan river basins” project: analyses the status of water availability and usage through a remote sensing based water accounting approach (WA+) which is jointly developed by UNESCO-IHE, IWMI and FAO and applied in the Helmand River Basin.
6. Land Cover Map: developed and recently updated by FAO together with the actual evapo-transpiration layer kindly provided by the United States Geological Survey (USGS), is being used by the WA+ framework to assess water consumption by land use class.



7. GAEZ v4 assessment and data portal: linked with major global assessments (International Panel on Climate Change, Water Futures and Solutions) delivers a wealth of information for identifying hot-spots of emerging land and water resources related risks and vulnerabilities and serves as a comprehensive account for current land use to support planning and decision-making.

The main findings from the presentations of the seven initiatives listed above and the debates from the floor, concluded that impressive work on methods, tools, datasets and research currently exist within FAO and its research/technical partners. They can further be scaled-up in combining relevant indicator sets to monitor and understand the people in the communities and the impacts on food security. While socio-economic mapping requires further work, it results more difficult because most socio-economic mapping exercises have political implications and therefore such maps are rarely accepted as reference maps. Dialogue processes coupled with assessment exercises are thus required when these dimensions are considered.



## Challenges

The different scales (including rural, urban and peri-urban areas) spanning across sectors, landscapes and ecosystems, (including mountains, deserts, megacities, fisheries and aquaculture), brought new dimensions and opportunities to re-think integrated approaches. Choosing the most suitable land use can support sustainable production and more resilient food systems. Biophysical assessment, backed by a good negotiation process, is necessary to reach an agreement amongst all concerned stakeholders regarding the optimum land use. Participants mentioned the fact that many land-use plans were never implemented because they were not part of integrated development plans. Political will and good governance is critical for both developing and implementing land-use plans. Most of the challenges appear to be procedural and political, hence there is significant scope for learning between sectors. Political will, rather than technical and social aspects, is urgently needed; hence the importance of understanding the political and economic context. When we think about scales, it is not sufficient to develop a master plan at the national level that is very problematic to implement. We need to focus on the district, province, and county or municipal level where capacity needs to be developed and where practical plans are possible.

There was a rich exchange of experience among participants working with a range of methodologies and tools in the different technical areas of land, soil, water, natural vegetation, rangelands, arable land (rainfed and irrigated), genetic resources, livestock, fisheries and aquaculture, forests, mountains, and gender, enabling environments and rural and urban markets. The existing tools and methodologies have proven useful and have been accepted by decision makers. However, the various change processes on the agricultural sector are a matter of management and legislation. Water scarcity and land degradation need to be

addressed through governance tools. The recommendation is not to start with the most difficult thing, but to build confidence in the methodology and trust, and social ownership.

One key issue to be addressed is the mapping of migration as critical when looking at resilience and adaptation. In conflict areas, people plant but do they harvest? How far must we go to involve the people who don't have a voice in the negotiation process? Initiating the process and developing a territorial pact is difficult and requires time. A participant from Jordan stated that the need to choose between using water for drinking or eating is a matter of crisis management.

Many divisions within the RBAs have been working towards sustainable agricultural production systems with their respective tools, but they have been working in *silos*. FAO's new Strategic Framework offers an opportunity to address these issues in a more integrated and very effective way. Furthermore, the RBAs recently developed a joint Conceptual Framework – “Strengthening Resilience for Food Security and Nutrition” – to work more and better together, and with key partners, to strengthen resilience of the most food-insecure. The framework provides a way for the agencies to seek and build complementary alignment across existing agency-specific approaches to support the resilience of food-insecure people rather than develop new approaches, thereby ensuring that RBA collaboration is cost-effective.

## Recommendations for future work

- There is a wealth of knowledge on integrated approaches and concepts that should be communicated to decision makers. The different integrated approaches should be presented so that a menu of choices on the range of applications is provided. We need to show that they can be used and applied in specific contexts, and can be owned and led at the country level. We need to emphasize the importance of integrating biophysical and socio-economic approaches followed by a negotiation process that ensures the needs of marginalized parts of the population.
- Existing packages of land use planning tools need updating and may not have kept pace with the people-centred approaches currently in use. We need to further develop ‘scenario development’ for land-use change, socio-economic mapping, population growth, etc. We need to use statistics and spatial data in land use planning tools at various administrative levels. It is recommended that FAO develop standardized methodologies, particularly on socio-economic mapping, and propose a guide for the use of the available sets of tools that can be combined to support integrated projects/approaches and address a wide range of issues.



- All integrated approaches use the *landscape* as a planning unit where people should be at the centre. Some approaches can be scaled up at national and multi-country levels, while other approaches are more applicable at the local and community levels. A *landscape approach* is both ambitious and essential. It seeks to reconcile different land-based activities, reconnecting the environment and people in an integrated and sustainable way. It aims to balance the global, top-down political agenda for climate change and development with a more bottom-up approach to land-use planning. It also acknowledges that, in the same landscapes where we are trying to adapt to or mitigate climate change, we are also trying to alleviate poverty. It requires us to confront the problems of power inequalities, recognizing that while some people will benefit, others, inevitably, will not. Although the concept is growing in popularity, more information is needed to understand if the landscape vision is working. There are existing platforms and forums, such as the Landscape People Food for Nature (LPFN) and the Global Landscapes Forum, that exist as networks and information exchange, as well as advocacy platforms, that are already embracing the *landscape management approach* through sharing and consolidating approaches across partners. FAO should seize the opportunity to have a stake in recognizing and promoting the integrated landscape management approach with its member governments and partners as a policy framework, and support them in the capacity and design of niche programmes through the FAO committees (COAG, CFS) and regional conferences.
- How do we bridge the gap on the lack of collaboration amongst colleagues, divisions and agencies? Synergies and cooperation at sub/national, regional, sub-regional and global levels should be advocated, while the delivery capacity on integrated solutions from all users of the ecosystem services need be developed. Thus, a big potential for collaboration amongst the three RBAs at all levels is evident.
- There is a call for increased partnerships and broader commitments from farmers and investments from the private sector on several initiatives. For example, i) the use of incentives from the private sector (i.e hydroelectric power in Kenya) is key to engage with industry issues in addressing improved waste water and recycling, and may be useful to include in the IES approach; and ii) the increase in the market value of agricultural products and improvement of the provision of ecosystem services through organic certification.





## Theme 3: Climate change, risks and resilience

### Highlights

The Plenary Session on Climate change, risks and resilience started with a session on fostering adaptive natural resources management to cope with risks and climate change. An introduction on the *Climate Smart Agriculture (CSA) Approach* provided the context of the session. CSA aims to re-orient agricultural systems to support food security under the realities of climate change. CSA calls for a set of actions by decision-makers from farm to global level, to enhance the resilience of agricultural systems and livelihoods and reduce the risk of food insecurity, in the present, as well as the future. Sustainable land management is at the core of many CSA strategies and solutions. CSA supports landscape approaches and analysis of the options in existing foresight and scenario initiatives, which can greatly increase the effectiveness of research efforts at local and international levels.

Four presenters shared approaches and stressed the differences related to the situations and context of their projects. A representative from Mexico discussed the *facilitation of adaptive capacity* among farmers by the Mexican government, including a new model called SWAPAH (Soil-Water-Air-Plants-Animals-Humans), emphasizing that “people must be at the centre”. A representative from WFP in Somalia described the *Three-pronged approach (3PA)*<sup>1</sup>, an innovative programming approach to building resilience that was undertaken in the country, and stressed the importance of multi-stakeholder consultative processes, and better coordination between humanitarian and development partners. A FAO programme officer working

<sup>1</sup> The Three-pronged Approach (3PA) brings people, governments and partners together to identify context-specific actions required, using converging analyses, consultations, and participatory approaches. It is made up of Integrated Context Analysis (ICA) at national level, Seasonal Livelihood Programming (SLP) at sub-national level, and the Community-based Participatory Planning (CBPP) at local level.

in Bangladesh discussed how *social protection tools can be used to enhance adaptive capacity* by taking a more systematic approach based on cash for work.



Discussions regarding the importance of CSA, highlighted the issue that people choose the best option for their priorities. The drive for migration is significant in many different contexts. The question is how to facilitate those exiting from agriculture and how to support those staying in agriculture? Resource efficiency and governance should be emphasized, while common indicators linked to the SDGs need be identified. It is important to recognise that pursuing productivity and resilience is not neces-

sarily the same, and often there are *trade-offs* with a range of options, of which the best is chosen depending on one's priorities. With the premise that one way or another we will have to deal with climate change, implementing CSA would require effective approaches and tools for evaluating the adaptation and mitigation potential of different policies and technologies, from local to global scales, covering the impacts of both extreme events and slow-onset changes on agriculture and food security, assessing means of increasing resilience in agriculture and food systems, and identifying options for, and costs of, reducing emission growth.

A session on *improving water productivity*, what it means and should we care, started with the understanding that CSA calls for optimal use of natural resources and therefore better water use in agriculture, and that this results more urgent with the potential reduction in water in areas already dependant on water for agriculture. *Water productivity (WP)* is increasingly being flagged as an important issue in relation to global and regional food security. A consequence is that attention formerly given to irrigation efficiency is being transferred to water productivity. Increasing the WP of irrigated and rainfed agriculture is thereby seen as a critical element in increasing agricultural production without major increases in fresh water diversion to agriculture, particularly in regions facing increasing water scarcity. Another perspective on WP was put forward by the Committee on the World Food Security (CFS) High Level Panel of Experts, from its recommendation on water and food security that approached the WP concept as "more food security per drop" where the priority is set on vulnerable and marginalized groups and inclusive governance.





A session was organized to share the results of the International Year of Soils (IYS) and to show both the technical and political aspects of sustainable soil management. The opportunity, provided by the momentum of the IYS, indeed raised awareness on sustainable soil management, as well as the concept of “*healthy soils for a healthy life*”.

Another session was organized to address the land and migration nexus: land and water actions to reduce environmental migration and promote job creation with presentations from FAO, the Global Mechanism of the UNCCD and the International Organization of Migration (IOM). The following issues were introduced by presenters: relationships between land degradation, migration and conflicts, decision making strategies and migrants and consideration of migration as an adaptive strategy; tools used by FAO to provide rural employment to the rural youth and innovative mechanisms and sources to promote sustainable land management (SLM) in migration prone areas with an example of a project in West Africa implemented with ECOWAS.

There was a rich exchange of ideas and initiatives among participants from different regions on how to address land and migration issues which should be given a priority. The *nexus of environmental migration, agriculture and land degradation* is a nascent topic that requires attention from the agriculture land and water sectors. Presenters and participants were interested in working together and continue the work through joint collaboration, including research areas



on the following issues: changes in the social fabric in rural areas due to migration (from the University of Southampton); links between the current “mass migration” and the environment; examples of government-led initiatives to promote private and public investments dealing with migration (Senegal public policies were mentioned as an example, as well as the promotion of the use of mobile phones in certain drought-stricken areas in Kenya).

WFP organized a session on building resilience for food and nutrition security through land and water management. It started with the challenge posed by the WFP presenter to address the *nexus between land degradation-food security and nutrition-poverty*, which represents a strong set of interlinked multipliers of humanitarian crises and disasters, and that after years of remaining ‘in the background’, land and ecosystems degradation is increasingly acknowledged as a tremendous threat to food security and nutrition and to poverty reduction efforts, undermining longer term sustainable development. The presenter highlighted how the resilience agenda – about partnerships and complementarities – can act as a binding element to address the underlying causes of food security and malnutrition for vulnerable people and called for partnerships and complementary work among RBAs and other partners, as a collective opportunity to rally support at scale and start tackling the problem at the source.

The FAO presenter provided his perspectives on the necessary tools to promote the nexus topics that deal with power dynamics in land tenure (governance) and require participatory dialogues and fair negotiations between different stakeholders. The Participatory Negotiated Territorial Development tool provides an approach that can address such issues.



Five best practices from a broad spectrum of geographical, technical contexts and a partnership approach, were presented. These showed how Land and Water management is foundational for building resilience for food security and nutrition in depleted ecosystems affected by hunger and recurrent shocks, and the importance of forging strong partnerships on the ground to achieve positive results.

1. From WFP Sudan: the presenter highlighted how the Three-pronged Approach (3PA) helped to establish the Joint Resilience Programme (JRP), a partnership between WFP, FAO and UNICEF, aimed at developing a coordinated, holistic approach to strengthen resilience to floods and droughts in Kassala State. Through the 3PA programming tool, this project has supported the creation of integrated assets with the objective of protecting land from floods, increasing agricultural land, and improving access to water for both animals and human beings. The success behind the project was achieved thanks to the participatory planning approach used and the sense of ownership developed amongst community members, the high level of governmental, UN and NGO partnership, and the ability to engage women despite very conservative settings where women traditionally have limited access to control over resources.
2. From WFP Niger: “Recovering the agricultural production potential and strengthening resilience through land rehabilitation”. The objective of the programme is to enhance the resilience of vulnerable communities living in fragile and shock-prone ecosystems. The following set of interventions were selected in close consultation with partners and communities: Food Assistance for Assets Programmes (FFA), agriculture inputs distribution, rangeland improvement activities, farmer field schools on improved agricultural practices and natural resource management. Early evidence suggests that the programme generated very positive results in terms of food consumption, and reduced coping strategies, including distressed outmigration.
3. From WFP Kenya: “*Resilience building through asset creation in Kenya’s Arid and Semi-Arid Lands*”. The objective of the project was to build livelihood resilience in Kilifi County, where erratic rainfall, prolonged dry spells, and persistent droughts affect food security and livelihoods. Interventions identified with communities have resulted in improved food availability and nutrition, and access to water for domestic and livestock use. This has reduced hardship of collecting water, especially for women and girls, and improved sanitation and hygiene, among other achievements.

4. From WFP Bangladesh: “Enhancing livelihoods resilience of communities affected by flooding” in Satkira. The rehabilitation of drainage canals started with targeting the ultra-poor, whose livelihood was mostly dependent on agriculture, and was severely undermined by the recurrent floods and large-scale inundations. Through this project, the communities re-excavated the silted up canals, while receiving cash transfers through mobile banking systems.
5. From FAO Sudan: “Participatory Negotiated Territorial Development in Natural Resources management and conflict resolution”. In the complicated context of Darfur, natural resource scarcity has been a major driver of violent conflict due to populations, declining rainfall, and failing land and natural resource governance. The approach helped build trust and eventually improved peaceful co-existence, socio-economic relationships, household income, and food security.

## Challenges

The issue of climate change, risks and resilience, brought many challenges in the understanding of existing approaches and concepts. WFP brought the challenge on the resilience agenda that is closely linked to the global challenge of climate change and disaster risk reduction, at the source of the displacement of people affected by shocks and both cause and consequence of conflict, distressed outmigration and human suffering. The underlying causes are directly linked to land and water issues that need innovative and large scale partnered efforts on the ground, in conjunction with the development of enabling policies and strategic frameworks. The Water Productivity (WP) concept and its linkage with food security is context and scale specific, and so are the options available to address WP gaps. WP is a relevant concept both in irrigated and rainfed conditions, although challenges and options for addressing them differ considerably.

The emerging issue of land and migration brings new challenges and opportunities to link migration and desertification, land degradation and drought (DLDD) that should be considered in land and water investments in support of sustainable agriculture and food security. A main lesson to be learned is the fact that migration can be generally perceived as an adaptation strategy/adaptive capacity, but studies show that some migrants, particularly those leaving rural areas for big cities, may increase their vulnerability (failed adaptation); and this should be considered in project designs. Although several sources predict an increase of human mobility in the future, particularly from South to North, evidence shows that the system of human mobility is highly unpredictable and there is no evidence other than the fact that an increased total figure of migrants could be the result of the earth’s growing population.



The IYS brought about a new awareness on the need to focus on sustainable soil management, especially given the lack of available harmonized digital data on soils and the absence of soil information systems in many countries. The post-IYS implementation activities will be continued to keep the momentum to promote the development and use of national soil information systems and soil indicators. Tools and methodologies will be developed for soil hazard assessments and will be closely aligned with other land and water related infrastructures.

Sustainable Land and Water management plays a key role for resilient livelihoods that build on sustainable production, preservation of the natural resource base, including biodiversity and ecosystem services capable of withstanding a variety of climate and other shocks, and adapting and transforming in the face of an increasingly risky environment. These efforts are encouraged by the adoption of the new Sustainable Development Goal, which recognizes the foundational relevance of ecosystems management (SDG15).

## Recommendations for future work

1. There is the need to recognise that the discourse around land degradation needs to become more prominent in high level policy and strategic engagement and that land and water can become a common denominator in a number of transformative efforts related to DRR, resilience and climate change adaptation.
2. WFP is increasingly promoting comprehensive and integrated land and water management efforts. However, it is crucial to ensure that this is done under the leadership of the government and through their direct engagement. In this context, in order to ensure that technical standards get better, it is critical to link community local knowledge and technical services when designing land and water interventions. The need of improved awareness on the effect of land degradation and the issue to reach 'scale' is where the RBAs could join hands to ensure convergence of complementary efforts. Best practices are emerging from a number of countries – these efforts should be better advocated for replication.
3. There was a call for an increased collaboration among the RBAs and other partners, like the GM-UNCCD and IOM, to work together to integrate migration and labour issues in the design and implementation of land and water initiatives.





## Conclusions and recommended follow-up actions

The key messages and recommendations described in this document were elaborated from the highly participatory three-day Land and Water Days. There are specific recommendations related to each of the main three themes described. The summary below focuses on the main priority activities which can serve as a basis for future collaboration among land and water practitioners within the RBAs and beyond, and can serve as a new vision of land and water actions on the ground, to be re-visited for follow-up and to ensure their continuing relevance in the next Land and Water Days in two years' time (expected at the end of 2017):

1. RBAs should design joint advocacy efforts in raising awareness of policy-makers and donors on the topics of water scarcity and land degradation, as these issues need to become more prominent in high level policy and strategic engagements and transformative efforts related to DRR, resilience and climate change adaptation.
2. RBAs should increase collaboration with partners like the GM-UNCCD and IOM on the work related to integrating migration and labour issues in the design and implementation of land and water initiatives.
3. RBAs should review and share the existing integrated approaches and concepts and provide a menu of choices on the range of applications. We need to show that they can be used and applied in context-specific situations, and can be owned and led at the country level. We need to emphasize the importance of integrating biophysical and socio-economic approaches followed by a negotiation process that ensures that the needs of the marginalized parts of the population are met.

4. RBAs should also further discuss the questions: at what scale should local solutions be developed to be sure that all needs and interests can be addressed? What tools are needed for which scale? This work entails a review of different integrated resource management approaches and tools to understand at what point of different scales they are useful. Furthermore, it is important for RBAs to use the results of the review and develop a common platform and speak with a stronger voice in dialogues with governments.
5. FAO should explore partnerships with differentiated roles with existing platforms and forums working on landscape management approaches such as the Landscapes for People, Food and Nature (LPFN) Initiative and the Global Landscapes Forum. FAO should promote an integrated landscape management approach to its member governments and partners as a policy framework and support them in the capacity and design of such programmes through the FAO committees (COAG, CFS) and regional conferences.
6. Land and water experts are advised to systematically use stakeholder mapping and analysis tools when initiating projects, in order to ensure a people-centred approach. In doing so, they will map and analyse the communities and institutions and understand power asymmetries, interests, drivers and incentive factors that are critical for the success of projects. We need to understand that natural resources are not only used for agriculture purposes and that most of the conflicts are due to competition between agriculture and non-agriculture users.
7. Existing packages of land use planning tools should be updated with consideration to scenario development, socio-economic mapping, and use of statistics and spatial data at various administrative levels. It is also recommended that FAO develop a standardized methodology, particularly on socio-economic mapping, and propose a guide for the use of the available sets of tools that can be combined to support integrated projects/approaches and address a wide range of issues.
8. RBAs should develop a joint strategy on capacity development in delivering integrated solutions from all users of the ecosystem services.
9. RBAs should explore enhancing partnerships with private sector and farmer organizations in designing innovative incentives for environmental services (IES) that address improved waste water and recycling, greening the cities, increase market value of agricultural products, etc.



10. FAO should facilitate the drafting of recommendations to the Land and Water Technical Networks to serve as a Land and Water Days follow-up mechanism on the exchange of information and organize quarterly regional knowledge sharing meetings.



In order to facilitate the implementation of these recommendations, the Land and Water Days participants have recommended the organization of follow-up meetings between the concerned parties, and to consider establishing a task force between FAO, WFP and IFAD to ensure a smooth and effective implementation of proposed actions. Participants have further recommended that the Land and Water Days be

organised on a regular basis and systematically included in the work programme of the different partners.

## Annex 1 - Joint Statement from the Land and Water Days 2015

**Key areas to strengthen collaboration between FAO, WFP and IFAD, in work related to land and water, to end hunger, achieve food security and improved nutrition, and promote sustainable agriculture.**

### A. Context

The three Rome-based agencies of the United Nations devoted to food, FAO, IFAD, and WFP, jointly organized the Land and Water Days 2015, from 10 to 12 November. The Land and Water Days highlighted some important lessons from mistakes as well as successes, from projects on the ground and from the work done at various levels, addressing common challenges (i.e., weak governance, land degradation, migration, water scarcity, low productivity).

During this event, it became clear that opportunities exist to further strengthen ongoing collaboration and develop synergies in work related to land, tenure, soils and water, to end hunger, achieve food security and improved nutrition, and promote sustainable agriculture. This enhanced collaboration will increase overall efficiency and effectiveness, and help create a lasting impact.

The collaboration contributes to the “One UN” spirit and ongoing RBA collaboration efforts for which the basis was set in the 2009 policy paper <sup>1</sup>“Directions for Collaboration among the Rome-based agencies”, which was approved by the respective governing bodies of the three agencies.

This RBA collaboration will fall within the framework of the respective agencies’ strategic plans, and programmes of work, and also link up with RBA efforts on the implementation of the RBA conceptual framework for “Strengthening Resilience for Food Security and Nutrition”<sup>2</sup>, which was presented during the 42nd Session of the of the Committee on World Food Security (CFS42).

The collaborative spirit during the preparation of inputs to the Sustainable Development Goals (SDGs) will be continued for the work that will be needed in the establishment of the baselines, monitoring systems, and assessment and policy feedback mechanisms, particularly at the country level, for the SDGs 2,6, 13, and 15 of the Agenda 2030 related to respectively:

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<sup>1</sup> <http://www.ifad.org/gbdocs/eb/97/e/EB-2009-97-R-39.pdf>

<sup>2</sup> <https://www.wfp.org/rba-joint-resilience-framework>



- *End hunger, achieve food security and improved nutrition, and promote sustainable agriculture;*
- *Ensure availability and sustainable management of water and sanitation for all;*
- *Take urgent action to combat climate change and its impact. Acknowledging that the UNFCCC is the primary international, intergovernmental forum for negotiating the global response to climate change; and*
- *Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and biodiversity loss.*

Actionable recommendations<sup>3</sup> from the CFS42, based on the recent report by the High Level Panel of Experts on Water, Food Security and Nutrition, presented to CFS42, the recent FAO-led White Paper<sup>4</sup> "Towards a water and food secure future" (2015), and other relevant policy documents, provide another entry point to ongoing collaboration.

Importantly, and in this context, ongoing collaboration that exists in the areas of land and water will be better reported on, and scaled up and/or expanded where possible.

## B. Scope

The envisaged joint work will involve land, tenure, soils and water, and will entail: sharing and harmonizing approaches when relevant; assessment and monitoring; policy advice, advocacy and communications; and implementation with member countries through people-centered approaches and paying special attention to those adversely affected and marginalized. It will allow the three agencies that have similar overarching goals but specific and different mandates and instruments to join forces, building on the comparative advantage of each agency.

## C. Areas of Collaboration

In order to align objectives and maximize synergies among RBAs, the joint work on land and water will entail:

### **Information exchange that allows to:**

- Map:
  - geographical coverage
  - themes of interest
  - opportunities for joint needs assessment
  - opportunities for joint project design from the early stages
  - opportunities for joint support for project implementation
- Share approaches, methodologies and tools

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<sup>3</sup> <http://www.fao.org/3/a-m096oe.pdf>

<sup>4</sup> <http://www.fao.org/3/a-i456oe.pdf>

- Share strategies and work programs at regional, sub-regional and country levels, including the RBA resilience framework
- Influence policy, build technical capacity and scale-up innovations

**Joint work on a minimum of one area of common interest per year.**

**Identified areas at present are:**

- Communication on ongoing collaborations in land and water and on their eventual scaling up
- Gender mainstreaming in land and water projects
- Country-level collaboration: from coordinated, complementary approaches, to joint actions
- Country-level support for monitoring hunger, land and water-related SDG targets related to land, tenure, soils, and water, as this will require the establishment of baselines, monitoring systems, and assessment and policy feedback mechanisms
- Harmonizing landscape and upscaling approaches to speak with a more coherent voice and strengthen advocacy and policy dialogues with partner governments
- Nexus studies at field level (water-land-energy-food-public health)
- Recovery and development approaches to post-emergency situations, including disaster risk reduction, climate change adaptation, sustainable water management, and halting and reversing desertification and land degradation,
- Water tenure-related work,
- Fisheries tenure and governance-related work,
- Joint organization or contribution to international events, such as: ICID 2nd World Irrigation Forum, November 2016 in Chiang Mai, Thailand; the biennial Land and Water Days.

## Streamlining Tools for More Effective Collaboration

- The existing FAO Technical Networks on “Land and Tenure” and on “Water” will be extended to include IFAD and WFP technical staff. As a consequence, these networks will become a tool to exchange information and to coordinate.
- The three agencies will establish a working group at headquarter level, assigning focal points on land and water to continue the collaboration in a more systematic manner.
- To sustain the spirit of working together, sharing and learning, the three agencies will continue to hold periodic, face-to-face exchanges of information, thanks to events such as the biannual Land and Water Days.
- The three agencies will share information on their resource persons and experts, from international to country levels.
- The three agencies will consider the establishment of RBA country-level platforms where the comparative advantage of such is identified.

## Annex 2 - Communication Resources

### Website

The website was used in the preparation phase and during the event. It will continue to be used to upload reports and presentations.

Visit: <http://www.fao.org/about/meetings/land-and-water-days-2015/en/>

### Webcasts

Seven sessions were live streamed and are available at:

[www.fao.org/webcast/home/en/item/4003/icode/](http://www.fao.org/webcast/home/en/item/4003/icode/)

### YouTube/Interviews

Fifteen video interviews were conducted. In each interview, selected participants of the Land and Water Days share their experience in land and water projects highlighting achievements, success, but also what could have worked better to the benefit of those undertaking similar projects. Consult the playlist: (numbers 32-47)

A regional approach to address water scarcity in the Near East:  
<https://youtu.be/XsztV2vA8sg>

Why the Land and Water Days are an interesting experience:  
<https://youtu.be/AngMN9V9Nj4>

Present highlights and future prospects for Land and Water Days:  
[https://youtu.be/mRBqkFzAb\\_o](https://youtu.be/mRBqkFzAb_o)

Why sharing knowledge and practices are important:  
<https://youtu.be/XsN7xhMUG3c>

A participatory approach to improve land and water management in Bangladesh:  
<https://youtu.be/1Pi7ZNU8kFo>

Expanding potential for rainfed agriculture in Zimbabwe:  
[https://youtu.be/XB\\_ADKN88pI](https://youtu.be/XB_ADKN88pI)

Management of scarce land and water resources in an urban context:  
<https://youtu.be/95hzDgxrph8>

Food for the cities – building sustainable food systems:  
<https://youtu.be/FNOGJbd5uzo>

Resilience for nutrition and food security:  
<https://youtu.be/9uE6GtdWZs>

Recovering agricultural potential in Niger:  
<https://www.youtube.com/watch?v=gxQ8meFSHUM>

Groundwater Governance:  
<https://www.youtube.com/watch?v=bEx-RLk3jxs&feature=youtu.be>

Kenya –Policy change to improve ecosystem services and food security:  
<https://www.youtube.com/watch?v=U8LXB-9Fika>

Yemen –Addressing Water Scarcity in Yemen:  
<https://www.youtube.com/watch?v=nkZDZS18WE8>

Somalia –Why information matters in policy making:  
<https://www.youtube.com/watch?v=kTEEvQznDvM>

Climate change – building the resilience of  
smallholder farmers in Eastern Africa:  
<https://www.youtube.com/watch?v=4e6RtivVCLI&feature=youtu.be>

## Flickr/Photos

9 November -  
[www.flickr.com/photos/landandwater/albums/72157660348279637](http://www.flickr.com/photos/landandwater/albums/72157660348279637)

10 November -  
[www.flickr.com/photos/landandwater/albums/72157658727567283](http://www.flickr.com/photos/landandwater/albums/72157658727567283)

11 November -  
[www.flickr.com/photos/landandwater/albums/72157660301215707](http://www.flickr.com/photos/landandwater/albums/72157660301215707)

12 November -  
[www.flickr.com/photos/landandwater/albums/72157661123198291](http://www.flickr.com/photos/landandwater/albums/72157661123198291)

13 November -  
[www.flickr.com/photos/landandwater/albums/72157661155511455](http://www.flickr.com/photos/landandwater/albums/72157661155511455)

## Annex 3 - Projects/experiences discussed during the Land and Water Days

### Country level experiences

Country	Title of Project/experience	Contact person	Session
Afghanistan	Water Accounting in Afghanistan	Puspa Raj Khanal	8
Argentina	Negotiated LUP process - an example	Paolo Groppo	12
Bangladesh	“Enhancing livelihoods resilience of communities affected by flooding — a partnership approach”	Serajul Syed Arefeen	23
Bangladesh	DECCMA	Craig Hutton	8
Burundi	Sustainable Land Management in Kagera watershed (National component : Burundi)	Salvator Ndabirorere	Town Hall
Chad	Chad: case study of the Pastoral Water and Resource Management Project in Sahelian Areas (PROHYPA). Presentation in French & Discussion	Brahim Taha Dahab	6
Colombia	Programa "Protección del bosque y clima/ REDD+"	Maria Teresa Palacio Lozano	13
International	The International Land Coalition: Case studies	Jan Cherlet	6
Iran	Land Cadaster in Iran (project)	Edlira Kollozaj	14
Italy	“Solar tractor”	Toufic Elasmr	11
Kenya	Incentives for Ecosystem Services - Upper Tana Watershed & Nairobi Water Fund	Fredrick Kihara	13
Kenya	“Resilience Building through asset creation in Kenya’s Arid and Semi-Arid Lands”	Charles Songok	23

Country	Title of Project/experience	Contact person	Session
Mauritania	Mauritania: case study of land and water governance projects in Mauritania including the Poverty Reduction Project in Aftout South and Karakoro - Phase II (PASK II). Presentation & Discussion	Steven Jonckheere	6
Mexico	“Solar irrigation in Mexico”	Octavio Montufar Avilez	11
Morocco and Tunisia	Piloting the framework for action: inclusive groundwater governance in Morocco and Tunisia	Lucie Pluschke	7
Nepal	Irrigation strategy in Nepal	Madhav Belbase	3
Niger	“Recovering the agricultural production potential and strengthening resilience through land rehabilitation”.	Sidiki Traoreboubacar	23
Somalia	SWALIM	Hussein Gadain	8
Sudan	“Using the 3PA to establish a Joint Resilience Programme (JRP) that strengthens resilience to droughts & floods in Kassala state, Sudan”.	Salih Orabi	23
Sudan	“Participatory Negotiated Territorial Development in Natural Resources management and conflict resolution”.	Syprose Achieng Ogola	23
Swaziland	Swaziland: case study of the Lower Usuthu Smallholder Irrigation Project (LUSIP-GEF). Presentation & Discussion	Ray Gama	6
Tunisia, Ethiopia	Project on migration, agro-entrepreneurship and innovative mechanisms to youth employment in rural areas	Elisenda Estruch	17
Turkey	Safeguarding my future – a social responsibility project on soils and water	Aysegul Akin	22
Turkey	National Geospatial Soil Fertility and Soil Organic Carbon Information System	Hakki Emrah Erdoğan	22

## Regional level experiences

Country	Title of Project/experience	Contact person	Session
Africa	“Safe Access to Fuel and Energy”	Arturo Gianvenuti	11
Africa	CLIMAFRICA	Riccardo Valentini	8
Africa (6 countries)	Sustainable Investments in Water for Poverty Reduction	Patricia Mejias Moreno	Post-event (13 Nov)
Africa West	Promoting sustainable land management in migration-prone areas through innovative financing mechanisms in West Africa	Monica Lomeña-Gelis	17
Asia	Hydroponics	Austin Stankus	11
Central Asia	CLIMAC II	Ines Beernaerts	OS
Europe/Africa	Effectiveness of EU biofuels sustainability criteria in the context of land acquisitions in Africa”	Stefania Bracco	11
Near East	WP monitoring through remote sensing	Livia Peiser	8
Near East	Water Scarcity Initiative	Fawzi Karajeh, Faycel Chenini	OS
World	GAEZ v4	Guenther Fischer	8

## Case studies from the FAO Geo-Spatial Unit

Country	Title of Project/experience
	Global Agro Ecological Zones Data Portal <a href="http://www.fao.org/nr/gaez">www.fao.org/nr/gaez</a>
	Land Resources Information Management System and Cadastre Module
	FAO GeoNetwork Metadata Catalogue <a href="http://www.fao.org/geonetwork">www.fao.org/geonetwork</a>
	Crop Information Portal of Pakistan [test site]: <a href="http://cip-pakistan.geo-solutions.it">cip-pakistan.geo-solutions.it</a>
	Land Cover Classification System (LCCS) / Land Cover Meta Language (LCML)

Country	Title of Project/experience
FAO-GLCN Land Cover Toolbox for Interpretation and Data Analysis	<a href="http://www.glcn.org/index_en.jsp">www.glcn.org/index_en.jsp</a>
Global Land Cover Share (GLC-SHARE)	<a href="http://www.glcn.org/databases/lc_glcshare_en.jsp">www.glcn.org/databases/lc_glcshare_en.jsp</a>
Land Cover Mapping of Lesotho	
“Land” information for Agricultural Statistics	
SIGMA Project: the Global Agro Ecological Stratification (GAES)	
SIGMA Project: Country Selection Model	
SIGMA Project: Land Cover and Cropland Statistics	
CARBOAFRICA: Quantification, Understanding and Prediction of Carbon Cycle and other Gases in Sub-Saharan Africa	<a href="http://www.carboafrika.net/index_en.asp">www.carboafrika.net/index_en.asp</a>
CLIMAFRICA-FP7: Scenarios of major Production Systems in Sub-Saharan Africa	<a href="http://www.climafrika.net/index_en.jsp">www.climafrika.net/index_en.jsp</a>



# Annex 4 - Catalogue of Knowledge Management and Decision Support Tools

The Catalogue of Knowledge Management (KM) and Decision Support (DS) methods, tools and products on Sustainable Land and Water Management (SLM) is organised in 11 topics related to land and water. It was prepared in the context of the Land and Water Days 2015 by: Suk, Go (FIPI), Balfroid, Camille (NRL); LeonMarin, Veronica (FOM), Ricalzquierdo, Marta (NRL), Yalman, Idil (NRLD), Wang, Xiaoxiao (NRL); with Inputs from WFP.

This catalogue is an update of the catalogue prepared for the Land and Water Days 2012 and further elaborated in 2013 by Iwona Piechowiak. It is meant as an instrument to find existing tools and methods for land and water experts.

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### 1. Land

1. Soil Assessment
2. Soil Management
3. Land use Planning

### 2. Rangeland, Grasslands, Trees and Forest

- 2.1 Grassland and Rangeland
- 2.2 Trees and Forest Management
- 2.3 Mountains

### 3. Water

- 3.1 Water Quality
- 3.2 Water Harvesting
- 3.3 Agriculture
- 3.4 Crops and Water Management
- 3.5 Water-Energy-Food-Nexus
- 3.6 Water Use Assessment
- 3.7 Inland water

### 4. Climate Change

- 4.1 Climate-Smart-Agriculture
- 4.2 Climate Change Mitigation in Agriculture  
(Including Soil Carbon Sequestration)
- 4.3 Climate Change and Land
- 4.4 Climate change and Fisheries

### 5. Impact Assessment

- 5.1 Impact Assessment

### 6. Governance and tenure

- 6.1 Water
- 6.2 land
- 6.3 Forests
- 6.4 Fisheries

### 7. Gender

- 7.1 Gender Mainstreaming

### 8. Capacity Development

- 8.1 Territorial Development
- 8.2 GIAHS
- 8.3 Soils

### 9. Resilience

### 10. Global studies

### 11. Fisheries

### 12. WFP Contribution

Download the Glossary of Technical Terms from: [www.fao.org/fileadmin/user\\_upload/land-water-2015/docs/BROCHURE/LWD\\_GLOSSARY.pdf](http://www.fao.org/fileadmin/user_upload/land-water-2015/docs/BROCHURE/LWD_GLOSSARY.pdf)

The Catalogue of Knowledge Management and Decision Support Tools will be made available on the Land and Water Days web site.

## Annex 5 - Programme of the Land and Water Days 2015

Download the Detailed Agenda from: [www.fao.org/fileadmin/user\\_upload/land-water-2015/docs/BROCHURE/LWD\\_DETAILED\\_AGENDA.pdf](http://www.fao.org/fileadmin/user_upload/land-water-2015/docs/BROCHURE/LWD_DETAILED_AGENDA.pdf)

### Pre-Events

9-Nov	
	08.30-9.00
SIDE MEETINGS	09.00-9.30
	09.30-10.00
	10.00-10.30
	10.30-11.00
	11.00-11.30
	11.30-12.00
	12.00-12.30
SETTING THE MARKET PLACE	12.30-13.00
	13.00-13.30
	13.30-14.00
	14.00-14.30
PRE-EVENTS Info sessions & documentaries. Details on the website	14.30-15.00
	15.00-15.30
	15.30-16.00
	16.00-16.30
	16.30-17.00
	17.00-17:30
	17:30-20.00

- Plenary Sessions
- Thematic Sessions
- Working Group format
- Market Place event
- Other Activities
- Welcoming Cocktail

### Day I : Tuesday 10-November

Registration<sup>3</sup> and pre-booking of sessions, open space events

**Land and Water Days Opening**  
"Reaching effective and lasting impacts for Land and Water actions" (1) Red Room (ENG/FR)<sup>1</sup>

**Plenary Session I**  
"Setting the scene: Land and Water in the global governance context" (2) Red Room (ENG/FR)<sup>1</sup>

Coffee/tea break

**Plenary Session II**  
"Linking Land and Water governance across scales and disciplines" (3) Red Room (ENG/FR)<sup>1</sup>

Lunch

Documentary<sup>3</sup>

Room (tbc)<sup>2</sup>

**Open Space<sup>3</sup>**  
(Check detailed agenda for information on events and rooms)

**Share and Learn: The Market Place<sup>4</sup> (4a)**  
Support tools, methods, guidelines on:  
- Disaster Risk / Climate change  
- Irrigation and Drainage  
- Land and Water in urban & region food systems  
- Soil health and fertility

With coffee/tea **Flag Hall**

**Share and Learn: The Market Place<sup>4</sup> (4b-4c)**  
Presentation & discussion of tools, methods, guidelines on:  
- Coping with water scarcity  
- Managing Land resources sustainably  
- Land / Water governance and cooperation  
- Financing Land and Water management  
- Information and decision support for Land/ Water  
- Support adaptation and awareness (4b)

With coffee/tea **Iran Lobby & Iran Room**

Application of the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (5)

Red Room<sup>2</sup>

Linking Land and Water Governance. Strengthening and Scaling Local Solutions (6)

Iran Room (ENG/FR)<sup>1</sup>

Groundwater governance, a framework for action (7)

Pakistan Room

Land and Water assessment for identifying vulnerabilities and sustaining rural livelihoods (8)

Iraq Room

Welcoming Cocktail

Aventino Room (B, 8th floor)

Day II: Wednesday 11-November				Day III: Thursday 12-November		
<b>Highlights</b> from previous Day and Introduction to parallel sessions (9) <span style="float: right;">Sheikh Zayed</span>				<b>Highlights</b> from previous Day and Introduction to parallel sessions (19) <span style="float: right;">Sheikh Zayed</span>		
<b>Plenary Session III</b> "Down to earth: finding our way through a mosaic of integrative approaches" (10) <span style="float: right;">Sheikh Zayed (ENG/FR)<sup>1</sup></span>				<b>Plenary Session V</b> "Fostering adaptive natural resources management to cope with risks and climate change" (20) <span style="float: right;">Sheikh Zayed</span>		
Coffee/tea break				Coffee/tea break		
Nexus ideas: what can be done to address the trade-offs and synergies between water, energy and food? (11)  <b>Iraq Room</b>	Land use planning for sustainable agriculture and city region food systems (12)  <b>Iran Room</b>	Sustainable agriculture for ecosystem services: what's in it for farmers and how to support the transition? (13)  <b>Sheikh Zayed (ENG/FR)<sup>1</sup></b>	Improving Water productivity: should we care? (21)  <b>Iraq Room</b>	Sustainable soil management beyond the International Year of Soils/2015 (22)  <b>Sheikh Zayed</b>	Building resilience for food and nutrition security through Land and Water management (23)  <b>Iran Room</b>	
Lunch		<b>Documentary<sup>3</sup></b> <b>Room (tbc)<sup>2</sup></b>	Lunch		<b>Documentary<sup>3</sup></b> <b>Room (tbc)<sup>2</sup></b>	
<b>Open Space<sup>3</sup></b> (Check detailed agenda for information on events and rooms)				<b>Open Space<sup>3</sup></b> (Check detailed agenda for information on events and rooms)		
<b>Project Think Shop 1<sup>o</sup></b>  Designing projects for lasting impacts (14)  <b>Iraq Room 1</b>	<b>Project Think Shop 2*</b>  Documenting project experiences (15)  <b>Iraq Room 2</b>	<b>Project Think Shop 3</b>  A toolbox for successful Land & Water projects (16)  <b>Iraq Room 3</b>	Address the Land and Migration nexus: Land & Water actions to reduce environmental migration and promote job creation (17) <span style="float: right;"><b>Iraq Room</b></span>			
<b>World Cafe 1<sup>o</sup></b> "Learning from mistakes: an open dialogue on trials and errors" (24)				<b>World Cafe 2</b> "Regional synergies to ensure lasting impacts in Land and Water programs and projects. Collective review of opportunities for cooperation" (25) <span style="float: right;"><b>Iraq Room</b></span>		
Coffee/tea break				Coffee/tea break		
<b>Plenary Session IV</b> "A quick round of funding sources for Land and Water projects" (18) <span style="float: right;">Sheikh Zayed (ENG/FR)<sup>1</sup></span>				<b>Plenary Closing Session</b> "Joining forces for lasting impacts (26) <span style="float: right;">Sheikh Zayed</span>		

Pre-registration on 9 November from 12.30 to 13.30 for those willing to take part in pre-event information sessions starting at 14.30 listed thereafter: designing learning and documentation processes; Communicating effectively about your Land and Water project; Multi-stakeholder engagement to ensure ownership.

**Registration: from 8.30 to 9.00 on 10 November. A secretariat will be available during the event in Gabon Room (Building A 025).**

<sup>1</sup> ENG/FR: sessions with translation from English into French. No translation is provided from French into English.

<sup>2</sup> Room may be changed. Please check Daily Agenda for confirmation.

<sup>3</sup> **Open Space** sessions: interested participants can book 30' slots to discuss with others. Booking board available in the Flag Hall. Check the Detailed Agenda for other info & the Blog for daily updates.

<sup>4</sup> **Market Place:** materials, videos and posters available all week in Flag and Iran Lobby. Brief presentation of tools only during that session.

<sup>o</sup> **Sessions on invitation:** limited participation. Advanced booking requested during the registration on 9 Nov.

## Annex 6 - List of Participants

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# Land & Water Days 2015

10-12 November 2015  
FAO Headquarters  
Rome - Italy

As World leaders forged two new big deals in late 2015 – the Sustainable Development Goals (SDGs) and the Climate Change Agreements – over 200 experts and technical officers working in fields related to land and water management, participated in the 3rd Land and Water Days held at the Food and Agriculture Organization of the United Nations (FAO) Headquarters in Rome, from 10 to 12 November 2015. The three-day event was organized by FAO, in collaboration with the International Fund for Agricultural Development (IFAD) and the World Food Programme (WFP), with support from a Steering Committee composed of dedicated colleagues from the three Rome-based agencies (RBAs). The timing of the event allowed participants to reflect on their future work programme as they exchanged experiences across projects and regions and debated how to reach effective and lasting impacts for land and water actions.

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