



## Advanced assessment and planning technologies for Transformative Agriculture Adaptation and Mitigation

17-18 July 2019

Kamolthip 3 Room (2<sup>nd</sup> Floor)  
The Sukosol Bangkok  
Bangkok, Thailand

### Background

The agriculture sector is facing the dual challenge of increasing food production to meet increasing demands, while coping with the changing climate. Rapidly fluctuating global temperatures, uncertainties in precipitation patterns, and increasing intensities and frequencies of natural disasters, the majority of them are climate related, are acting as major threats to productivity and yield of major crops in varying degrees. Agriculture is also a key source and sink of greenhouse gas emissions. In acknowledgement of the challenges and opportunities that tackling climate change presents for agriculture and food security, the agriculture and land-use sectors (comprising crops, livestock, fisheries, aquaculture and forestry), feature prominently in Asian country Nationally Determined Contribution (NDC) to the Paris Agreement. Many countries in the region have specifically highlighted adaptation and mitigation measures in the sectors as priority actions for investment and scaling-up.

Designing and implementing these priority actions should be context specific at different spatial scales. Time is an additional complicating factor. The tendency to discount potentially catastrophic impacts and delay action requires a new set of information and decision-making products to guide policy makers and spark action. Access to timely and cost-effective data to inform measures for increased resilience and transformative adaptation in agriculture is a key barrier. From a mitigation perspective, finding ways to collect and monitor geospatial information on forest cover and degradation, crops yields and the

concentration of livestock emissions sources will make for more cost effective targeting of emissions reduction activities in agriculture. Over longer time scale, information about possible changes and shifts in agro-ecological zones and crop suitability as well as socio-economic drivers will provide valuable basis for policy makers to consider appropriate measures to accommodate movements in farming systems and farming communities.

A number of international and research agencies are developing advanced geospatial information platforms and tools that could address these challenges and enhance decision-makers ability to plan and implement transformative agriculture adaptation and mitigation consistent with national priorities. In addition, governments in the region are also increasing investments in accessing technologies and building capacity for better understanding of climate change impacts and planning for actions.

## Purpose

To investigate these issues in more detail, the FAO Regional Office for Asia and the Pacific (FAORAP) in collaboration with partners is organizing a regional workshop on “*Advanced assessment and planning technologies for Transformative Agriculture Adaptation and Mitigation*” in Bangkok, Thailand in July 2019.

The purpose of this workshop is to identify ways to strengthen data/information and advanced tools and systems to support public and private sector decision makers assess climate change risks, identify and assess gaps and needs of the available tools, and forge collaboration among stakeholders for increased resilience and transformative adaptation and mitigation in agriculture over different time sales.

## Outcomes

The purpose will be achieved through knowledge and information exchanges, experience sharing and establishing communication between participating countries and supporting technical and development organizations. The workshop is expected to have the following outcomes:

- Shared state of knowledge and experiences with advanced tools and systems to assess climate change risks and inform measures for increased resilience and transformative adaptation and mitigation in agriculture;
- Improved understanding of the types of information different decision makers require to inform measures for increased resilience and climate change adaptation and mitigation over different timescales;
- Identification of advanced tools and systems to support public and private sector decision makers assess climate change risks and identify measures, appropriate to their context; and
- Identification of potential collaborations to increase the availability of tailored information, tools and knowledge products to inform measures for increased resilience and progressive and transformative adaptation and mitigation in agricultural systems in Asia and the Pacific.
- Inputs provided and collaboration opportunities discussed to establish a regional platform to enhance access to and sharing of climate risk information and assessment tools.

## Outputs

The workshop will have the following output:

- A report and brief summary of the key messages and findings of the event.

## Participants

The workshop is targeted primarily at national level policy makers, development and spatial planners, researchers, large scale agribusiness and commodity traders. In addition, resource persons from NGOs, research organizations, educational institutes, international development organizations and think tanks will also be invited to participate.

## Tentative Program Outline

Time	Session	Lead Organization
<b>17 July - Day 1</b>		
08.30 – 09.00	Registration	FAO
09.00 – 09.20	Opening remarks & introduction of participants	FAO
09.20 – 09.30	Workshop objectives and structure	FAO
09.30 – 11.00	<p><b>Session 1: Role and potential for advanced assessment and planning technologies for transformative adaptation and mitigation</b></p> <p>Format: Panel discussion on key themes followed by open discussion. Invited panelists:</p> <ul style="list-style-type: none"> <li>• Rathana Munns (CCAFS)</li> <li>• Beau Damen (FAO RAP)</li> <li>• Douglas Muchoney (FAO CBD)</li> <li>• Mathieu Van Rijn (FAO RAP)</li> <li>• John Latham (University of Southampton)</li> </ul>	FAO with partners: <ul style="list-style-type: none"> <li>- CCAFS</li> <li>- University of Southampton</li> </ul>
11.00 – 11.15	<b>Coffee break and Group photo</b>	
11.15 – 12.45	<p><b>Session 2: National approaches for planning adaptation and mitigation action in agriculture and land use sector</b></p> <p>Format: Poster presentation followed by working group discussion</p>	FAO and country governments
12.45-13.45	<b>Lunch</b>	
13.45 – 15.15	<p><b>Session 3: Planning challenges on agriculture and land use sector</b></p> <p>Format: Working group discussion</p>	FAO and partners
15.15 – 15.30	<b>Coffee break</b>	
15.30 – 17.30	<p><b>Session 4: Technology solutions for adaptation and mitigation for transformative agriculture</b></p> <p>Format: Tool pitching &amp; working group discussion</p>	FAO and partners: <ul style="list-style-type: none"> <li>- ADPC</li> <li>- AIT</li> <li>- FAO (CBC)</li> <li>- SAMIS</li> <li>- University of Southampton &amp; FAO (AFG)</li> </ul>
17.30 – 17.45	Close Day 1	
18.30 – 20.30	<b>Welcome dinner reception</b>	
<b>18 July - Day 2</b>		
08.30 – 08.45	<b>Recap of Day 1</b>	
08.45 – 09.30	<p><b>Session 5: Regional platform for analysis and visualization of climate risks and vulnerabilities</b></p> <p>Format: Power point presentation &amp; open discussion</p>	FAO and partners: <ul style="list-style-type: none"> <li>- University of Cantabria</li> <li>- University of Cape Town</li> </ul>
09.30 – 09.45	<b>Coffee break</b>	

09.45 – 11.45	<b>Session 6: Technology solutions for adaptation and mitigation for transformative agriculture</b>  Format: Tool pitching & working group discussion	FAO and partners: <ul style="list-style-type: none"> <li>- APCC &amp; NARO</li> <li>- CCAFS</li> <li>- FAO (CBDS and RAP)</li> <li>- GIZ India</li> <li>- Government of Australia</li> </ul>
<b>11:45-13:00</b>	<b>Lunch</b>	
13.00 – 15.00	<b>Session 7: Needs and opportunities to localizing the advanced data for transformative agriculture mitigation and adaptation</b>  Format: Role play & group discussion	FAO, SAMIS, CCAFS
<b>15.00 – 15.15</b>	<b>Coffee break</b>	
15.15 – 16.45	<b>Session 8: Way forward in forging collaboration in the development and application of advanced assessment and planning technologies for transformative adaptation and mitigation</b>  Format: Working group discussion	FAO and partners
16.45 - 17.00	<b>Session 9: Conclusion and closing remark</b>	FAO