

International Consultation

At Four Points by Sheraton, Pune - 3 and 4 October, 2018

Adapting Agriculture in
Semi-Arid India to a
Global Temperature Rise of

1.5°C

25 WOTR



W-CReS

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Adapting Agriculture in Semi-Arid India to a Global Temperature Rise of 1.5 °C

Venue

Hotel Four Points by Sheraton
5th Mile Stone, Nagar Road, Pune,
Maharashtra 411014, India. Phone: +91 20 39406699
Watershed Organisation Trust, (WOTR): +91 20 24226211

SCHEDULE

Day 1: 3rd October, Wednesday

Registration: 08:30 hrs. to 09:30 hrs.

Inauguration (09:30 hrs. to 11:00 hrs.)

The inaugural session will outline the agenda and expectations of the consultation and include several keynote addresses from Distinguished Speakers

- Welcome & WOTR's 25 years Report- Dr. Marcella D'Souza, Exec. Director WOTR
- Relevance of this Consultation: Dr. Christian Siderius, Wageningen University and Research
- Mr. Shankar Pande, CGM Farm Sector Policy, NABARD
- Dr. S. D. Attri, Dy. Director General, IMD
- Mr. Deepak Singla, IAS, Commissioner Soil & Water Conservation, GoM, WALMI
- Vote of Thanks

Tea: 11:00 hrs. to 11:30 hrs.

Session 1 PLENARY SESSION: Setting the Context - Implications of an average global temperature rise of 1.5°C (11:30 hrs. to 13:00 hrs.)

This session has presentations on the implications of rising temperatures, heightened weather variability and growing vulnerability in the semi-arid regions of India.

CHAIR	<i>Dr. Richard Thomas, Senior Scientific Advisor, Economics of Land Degradation & ICARDA</i>
Impacts of global 1.5°C rise on regional rainfall and temperature	<i>Dr. Aradhana Yaduvanshi, Researcher, W-CReS</i>
Temperature rise, Extreme Events and Impacts on Agriculture	<i>Dr. R. P. Pandey, Prof., Scientist G, NIH-Roorkee</i>
India's Extending Aridity	<i>Dr. J. Sanjay, Scientist E, IITM, Pune</i>
Challenges of reducing poverty sustainably in a rising temperature regime	<i>Prof. Purnamita Dasgupta, Chair, Environmental Economics, Institute of Economic Growth, Delhi</i>

Lunch: 13:00 hrs. to 14:00 hrs.

Session 2: PARALLEL SESSIONS: Break-out thematic sessions to identify problematic areas and gaps in adaptation response (14:00 hrs. to 15:30 hrs.)

This session focuses on the four thematic areas of the conference – Land Use Land Cover (LULC), Water, Agriculture and Climate financial services. The four thematic sessions runs in parallel. There will be short presentations under each theme (total 30 mins) followed by discussions that seek to tease out gaps in the adaptation response (total 60 mins).

Group A – Land Use Land Cover Changes:

CHAIR	<i>Mr. Vikas Chandra Rastogi, IAS, Project Director at Government of Maharashtra</i>
Vegetation response to climate over a 33 year period in semi-arid regions, India	<i>Dr. Milind Bunyan, Coordinator, ATREE</i>
LULC changes over 25 years in the Mula, Pravara & Purna basins	<i>Dr. Vijayasekaran Duraisamy, Researcher, W-CReS</i>
LULC changes, ownership changes and gender impacts	<i>Seema Kulkarni, Sr. Fellow, SOPPECOM</i>
Changing land use and temperature variations – the rural heat scenario	<i>Dr. Swapnil Vyas, Assistant Prof., Pune University</i>

Group B – Water Resources

CHAIR	<i>Dr. Vaibhav Bhamoriya, Chairperson, PGP and Faculty – Economics, IIM Kashipur</i>
Water-Food-Energy Nexus in a warming environment	<i>Dr. Subimal Ghosh, IIT-B</i>
Groundwater Status in the Indian Arids	<i>Dr. Dipankar Saha, Former member CGWB (HQ), GoI</i>
Groundwater Quality: The Problematic	<i>Dr. Raymond Duraiswami, Pune University</i>
Surface Water Bodies: How much do we lose? Who loses?	<i>Ms. Ankita Yadav, Researcher, W-CReS</i>

Group C - Agriculture Production Systems

CHAIR AND PRESENTER Achieving agriculture productivity that is climate responsive while being cost effective & environmentally sustainable – the challenges, and possibilities	<i>Dr. B. Venkateswarlu Ex-VC, VNMKV, Parbhani; Ex-VC, BSKKV, Dapoli and Ex-Director, CRIDA</i>
Impacts of 1.5°C temperature rise on Crop growth, physiology and yields	<i>Dr. S. Naresh Kumar, Prof. and Principal Scientist, ICAR</i>
Effects of temperature on soil carbon and productivity of major crops	<i>Dr. K. Sammi Reddy, Director CRIDA</i>
The energy costs of lifting water for agriculture	<i>Dr. R. Balasubramanian, Prof. of Agricultural Economics, TNAU</i>
Changes in Ecosystem Services and impacts on gender roles and relationships	<i>Ms. Anuradha Phadtare, Researcher, W-CReS</i>

Group D – Climate Financial Services

CHAIR AND PRESENTER Crop Insurance and Climate Variability – an international perspective	<i>Dr. Swenja Surminski, Head of Adaptation Research, Grantham Research Institute, London School of Economics (LSE)</i>
Financing options for rainfed/small holder farmers and challenges	<i>Dr. N Srinivasan Ex-CGM, NABARD</i>
Climate Induced disasters, relief and compensation	<i>Col. V. N. Supanekar, Director, CDM, YASHADA, Pune</i>
Institutional mechanism for Climate Finance	<i>Mr. Arpan Golechha, Researcher, W-CReS</i>

Tea: 15:30 hrs. to 16:00 hrs.

Session 3: PLENARY SESSION: Identifying threats & causalities impacting agriculture and its resource base (16:00 hrs. to 17:30 hrs.): CHAIR: Dr. K. J. Joy, SOPPECOM

This session involves a reporting back of the four thematic groups which will be captured and represented in a System Dynamics analytic format that will help surface the connectedness of the different issues related to Land, Water, Agriculture and Climate Financial services. The gaps in adaptation responses and associated causes, reflected in the System Dynamics map, will help establish the causalities and identify the leverage points to develop pathways towards building resilience in agriculture.

Dinner: 20:00 hrs.

Day 2: 4th October, Thursday

Session 4: PLENARY SESSION: Building Adaptive Capacities (9:00 hrs. to 10:00 hrs.)

CHAIR	<i>Dr. B. Venkateswarlu Ex-VC, VNMKV, Parbhani; Ex-VC, BSKKV, Dapoli and Ex Director, CRIDA</i>
Land Degradation Neutrality in the context of Rising Temperature	<i>Dr. Richard Thomas, Senior Scientific Advisor, Economics of Land Degradation & ICARDA</i>
How small holder farmers cope with climate variability – A Global Perspective	<i>Mr. Claude Bourdin, Farmers Dialogue International</i>
Climate Change and the Goal of Doubling Farmers' income	<i>Dr. Ashok Dalwai, IAS, Chief Executive Officer, National Rainfed Area Authority, MoA, New Delhi</i>
Funding climate adaptation – How differently should donors look at this?	<i>Dr. Anindya Chatterjee, Regional Director, Asia, IDRC</i>

Tea: 10:00 hrs. to 10:30 hrs.

Session 5: Break-out Session: Developing “Pathways of Change” (10:30 hrs. to 12:00 hrs.)

CHAIR: Dr. S Janakrajan, President, SaciWATERs:

Three groups (Policy, Research and Practice) will review the System Dynamics map generated across disciplines the previous day to identify pathways of change, strategies and actions that will address adaptation gaps & underlying causalities, so as to make dryland agriculture climate resilient.

Short break (12:00 hrs. to 12:15 hrs.)

Session 6: Plenary Session - Consultation Conclusions and Next Steps (12:15 hrs. to 13:00 hrs.)

This session will present the identified “pathways of change” by the policy, research and practice groups, It will weave together a consensus from the deliberations of the Consultation which will be a rich picture that can be taken forward by Practitioners, Researchers for Policy design.

It will be followed by the responses from the distinguished guests / panelists.

Valedictory Session – (13:00 hrs. to 14:00 hrs.)

- Mr. Crispino Lobo, Managing Trustee, WOTR
- Mr. U.D. Shirsalkar, CGM, NABARD, Pune
- Mr. Eknath Dawale, IAS, Principal Secretary Agriculture, Government of Maharashtra
- Dr. K. P. Vishwanatha, Vice Chancellor, MPKV, Rahuri

It will conclude with a Vote of Thanks.

Close with LUNCH

ABOUT US:

Established in 1993, WOTR is a non-profit organisation that engages at the intersection of practice, knowledge and policy across scales and in collaboration with stakeholders from across sectors. Over the years, WOTR has entered diverse sectors and has grown institutionally and geographically. Headquartered in Pune, Maharashtra, WOTR has a physical presence in 8 states and provides occasional services to agencies from 28 countries. The Goal of the organisation is *“to ensure food, water, livelihoods and income security together with a growing quality of life to vulnerable and disadvantaged communities from a sustainable resource base”*.

The **WOTR Centre for Resilience Studies (W-CReS)** was set up with the objective to conduct rigorous trans-disciplinary, applied research to contribute grounded insights and learnings to policy formulation, program design and implementation, capacity building and behavioural change processes. The objective is to provide robust adaptive responses and mitigate the impacts of climate change on ecosystems, water resources, agriculture, food and nutrition, health, livelihoods, gender, governance and local institutions.

Wageningen University and Research is a collaboration between Wageningen University and the Wageningen Research foundation. ‘To explore the potential of nature to improve the quality of life’ is the mission of Wageningen University & Research. The domain of Wageningen University & Research consists of three related core areas: Food and food production; Living environment; Health, lifestyle and livelihood. It has branches all over the world, with the headquarter being located at Wageningen, in the Netherlands.

The Climate Adaptation and Services Community (CASCO) Project is a collaborative effort that aims to facilitate long-lasting cooperation in the field of climate change adaptation. CASCO consists of a total of five European and four Indian core partners, with a wide range of network partners.