UN 2023 Water Conference Side Event

[Securing water allocation for sustainable food production and the environment using innovative technologies and real time data]

24 March, 12:30, Conference Room 6

Organized by: Hydraulics research Center (HRC, Sudan), Food and Agriculture Organization of the United Nations (FAO), Ministry of Water of Somalia, Institut National des Grandes Cultures (INGC, Tunisia), IHE Delft Institute for Water Education (IHE Delft), International Water Management Institute (IWMI), and Association for the PROmotion of Hydro-climatic and Environmental Services (APROSHE, Burkina Faso)

Background on the event

Based on a wide range of applications of remote sensing water data, the event will reflect on its innovative contribution for sustainable food production. Examples of remote sensing uses in various fields from major groups (Member States, civil society, research and education, International organization, etc.) includes support to policy-makers on one hand to develop national water strategies and monitor progress towards 2030 agenda (e.g. target 6.4) and to farmers on the other hand through advisory services for water management.

Water Action Agenda

- [Global monitoring of actual evapotranspiration, biomass production and water productivity through Remote Sensing](#)
- [Global Water Data Portal](#)

Key Issues discussed
- Interest of using remote sensing information in large countries with areas difficult to access like Sudan, Somalia, Kenya, Pakistan and the Sudano-Sahelian areas of Burkina Faso and Mali, as well as in smaller countries like Tunisia.

- Diversity of applications using biophysical data: i) irrigation monitoring and performance improvement, ii) drought monitoring and early warning, iii) supporting floods responses, iv) localization of available and accessible biomass for pastoralism, v) early warning index based insurance, vi) water accounting, vii) implementation and enforcement of water management policies(such as water pricing) viii) improving agricultural production (yield).
- Remaining challenges for wider use include: i) data access and actionable so such data does not remain in academia, ii) capacity development, and iii) internet connection
- Some remote-sensing data is more suitable for larger contiguous agricultural areas. Need to figure out how the insights derived from those areas can benefit agricultural systems dominated by smallholder farmers that work in a dispersed manner.

Key recommendations for action
- Work towards improving trust in remote-sensing products by
    - Validating remote-sensing data with in-situ data
    - Increasing user-base through open access education solutions: more users means more opportunities to test and improve the data.
- Synergy of actions
- Inclusion of civil society
- Understanding the challenges to access of remote-sensing based products and explore possibilities such as offline tools where internet access is a barrier.
- Moving beyond the bio-physical approaches and integrate citizen science and a gender perspective for more contextually-relevant information