Asia Water Forum 2022
8–11 August 2022 • Online

Focus Area: Climate change and water-related risks

Session Title: Understanding, managing and communicating risks

Schedule: [09 August, 2022 | 03:30-04:30]

Water and climate risk preparedness tools for anticipatory actions and response planning in South Asia

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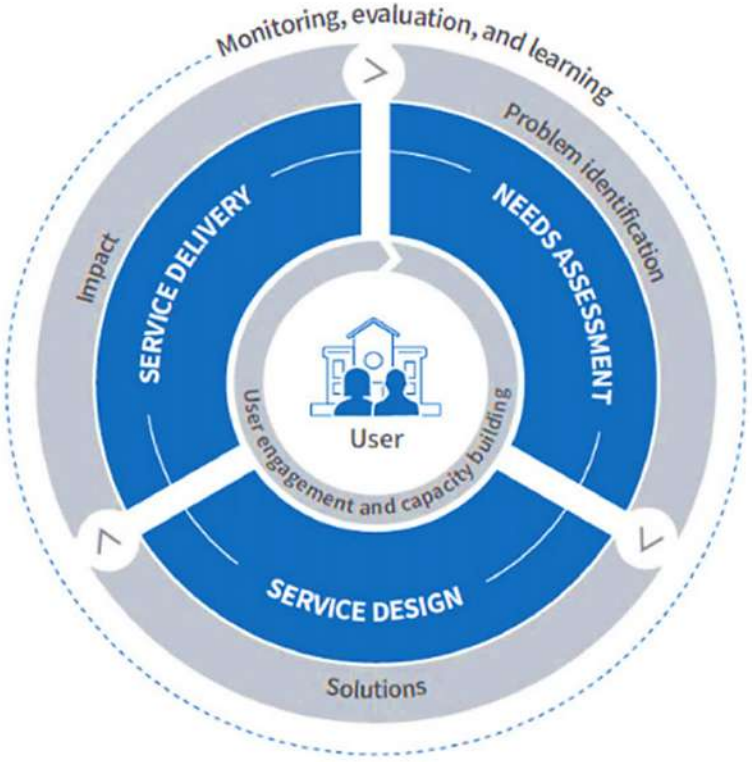
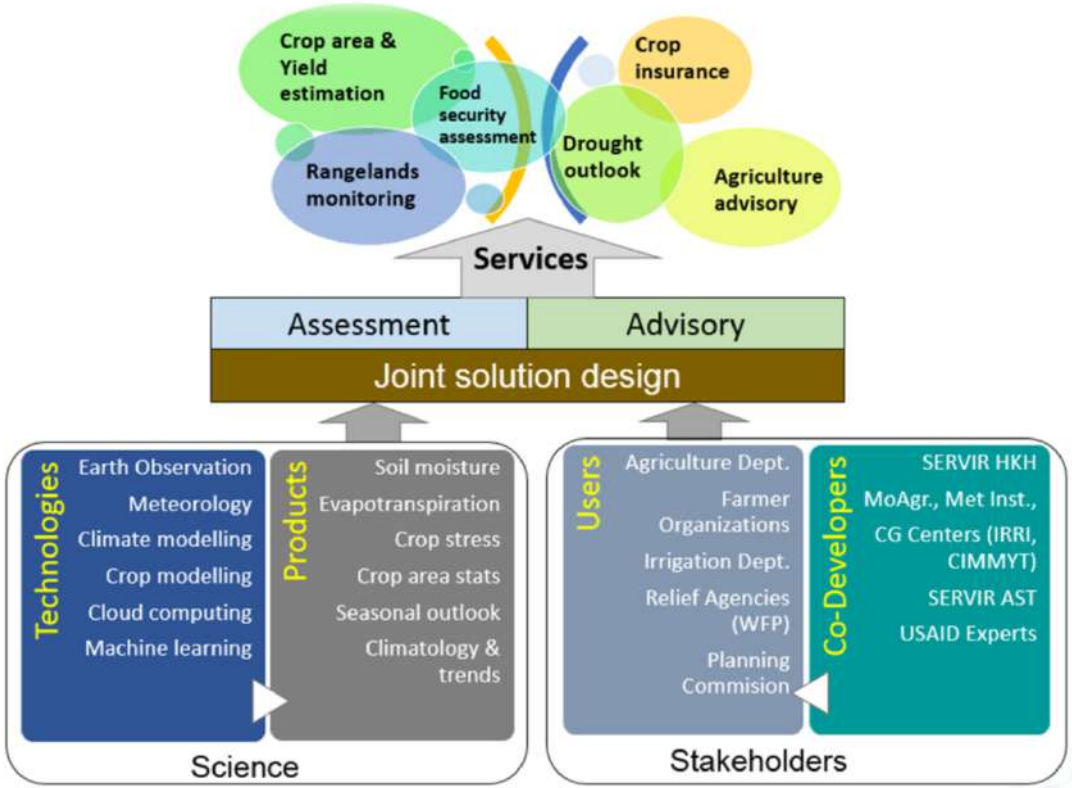
ADB

NASA SERVIR – Connecting Space to village

https://servir.icimod.org/





Priory countries: Afghanistan, Bangladesh, Nepal, Pakistan

Timescale of actions for climate resilient agriculture

Sustainability assessments for policy formulation **(National planning commission)**	**Seasonal scale planning decision** **(Nationally mandated institutions)**	**Advisory services** **(Farmers/Local government)**	**Risk transfer & sharing losses** **(Multilateral development banks)**
Agricultural landuse policies support in context of climate and water availability scenarios	In-season crop condition monitoring to support national food security planning process	ICT and advance climate information supported agricultural advisories	Forecast based action/financing (FbF) & Insurance
Agro-ecological zonation Niche crop zonation	Harnessing data-science for climate-risk preparedness of pastoral communities	(high value) Crop specific advisories	Loss and damage assessment

Strengthening sustainable agricultural practices and policy support through Earth observation data in Pakistan

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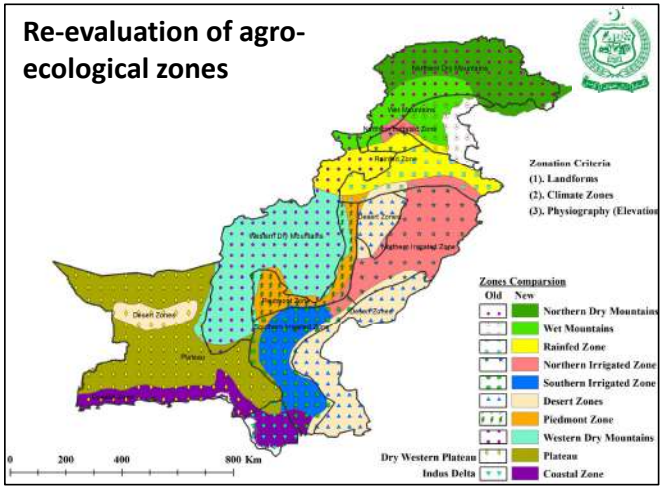
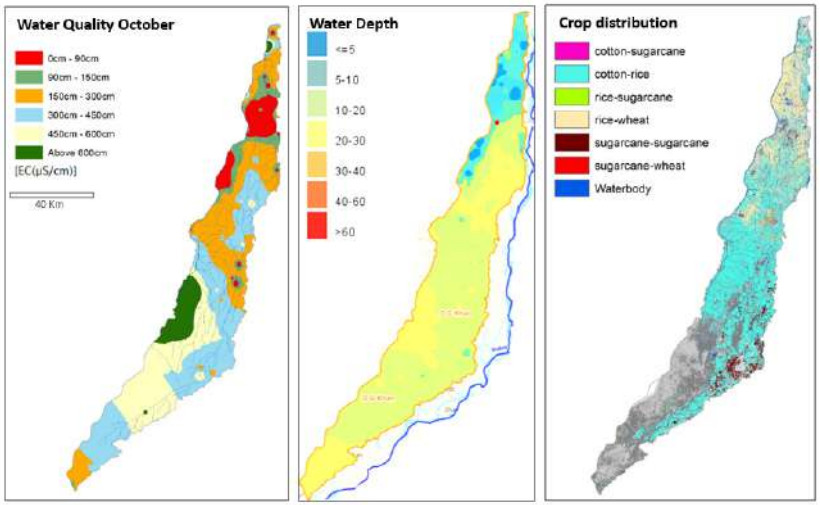
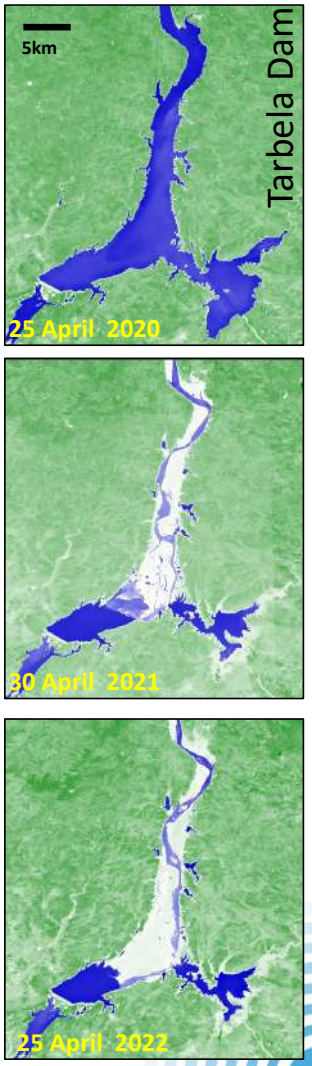
- EO derived agro-climatic data for re-evaluation of agro-ecological zones of Pakistan
- Sustainability assessment of current cropping practices in Pakistan, in context of climate patterns and water availability, to support crop-zoning recommendations



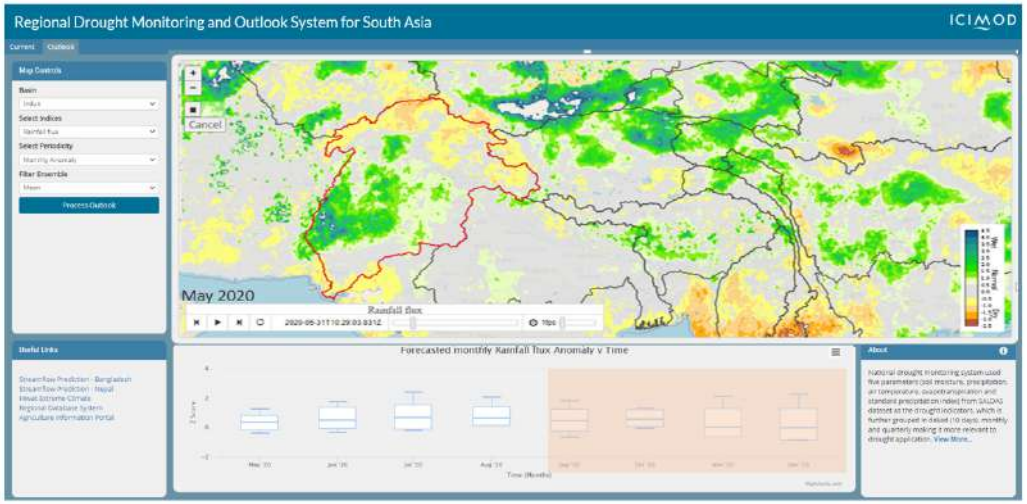




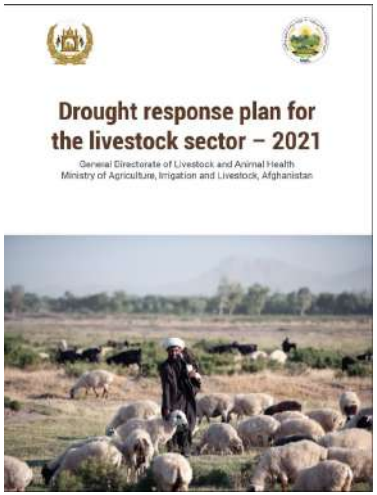
National partner agency:
Pakistan Agriculture Research Council (PARC)

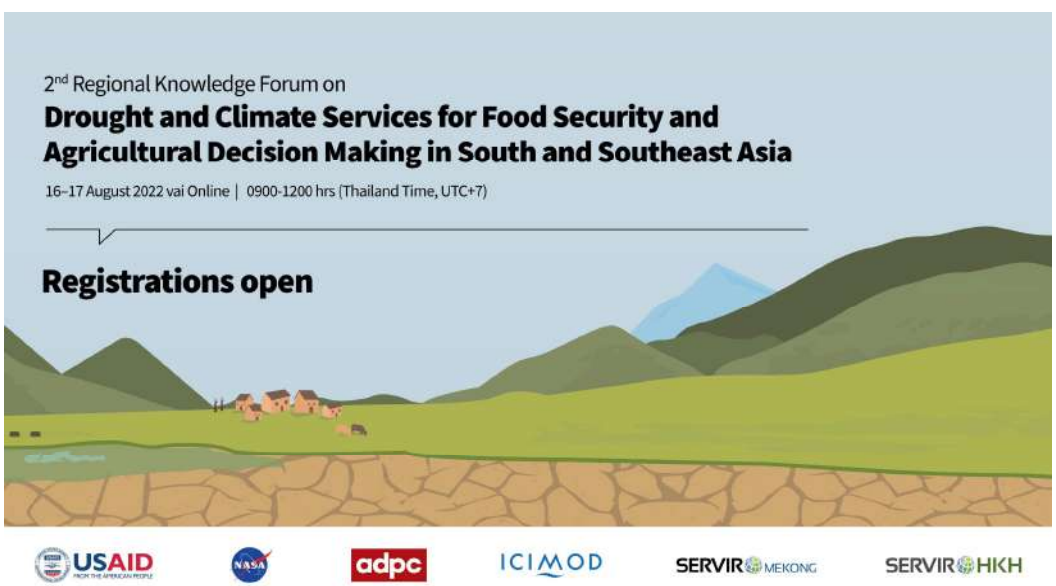
Earth Observation data supported drought early waning and impact evaluation

- Downscaling and calibration of global system at regional scale in collaboration with national institutions
- Information service for decadal near real time assessment and 4-months seasonal outlook
- Promoting use (integration) of data products in the risk preparedness and aid assistance at national and local level

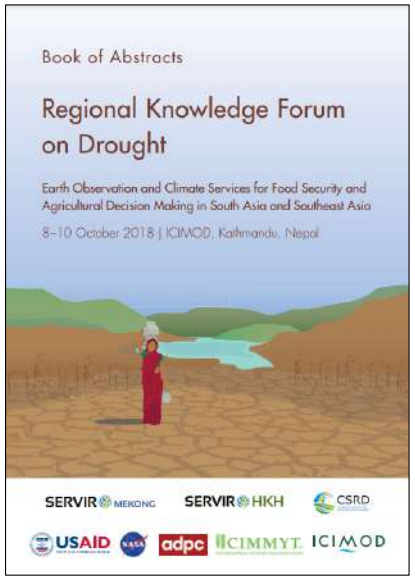


http://tethys.icimod.org/apps/regionaldrought/outlook/





https://servir.icimod.org/events/2nd-regional-knowledge-forum-on-drought-and-climate-services-for-food-security-and-agricultural-decision-making-in-south-and-southeast-asia/



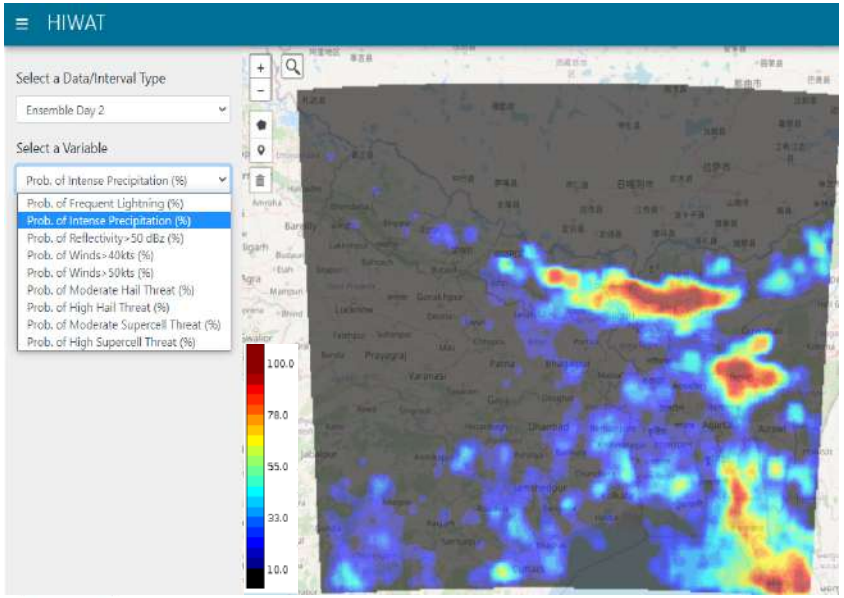
The 2018 Regional Knowledge Forum on Drought spotlighted the impacts of climate-induced hazards, particularly droughts in South and Southeast Asia, on agriculture and food security. It has laid the foundation for collaborative research and action towards drought monitoring and improving food security in the region.

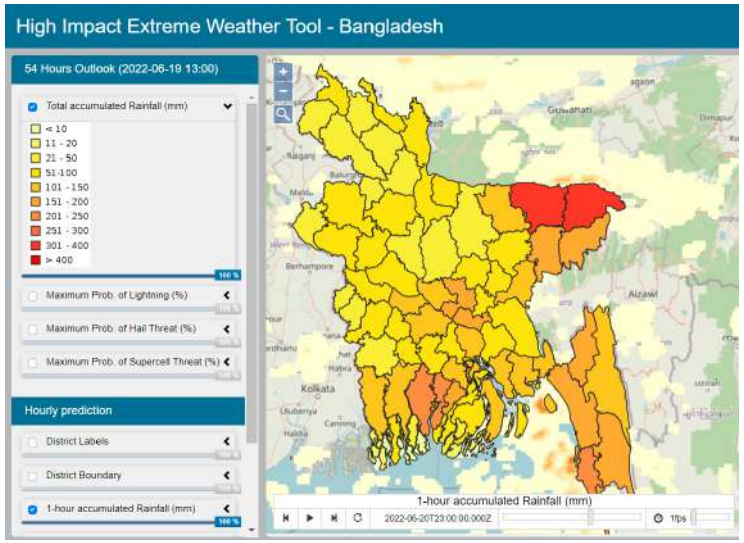
1st Regional Knowledge Forum on Drought, 2018, Kathmandu, Nepal

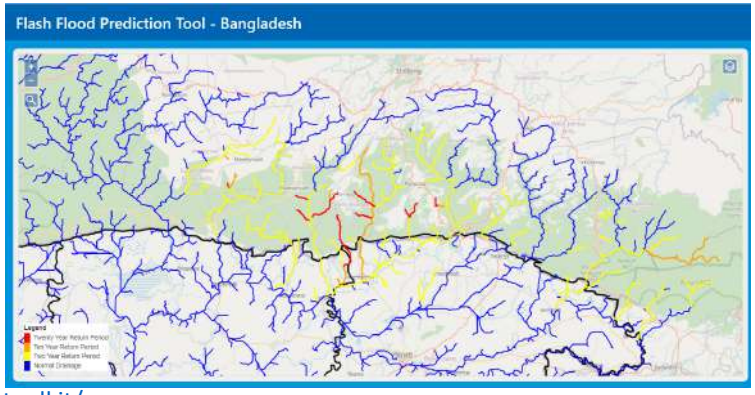
https://servir.icimod.org/servir-hkh/wp-content/uploads/2021/07/book-of-abstract-knowledge-forum-on-drought.pdf

HIWAT – 54 hours extreme weather outlook

- **Precipitation**
- **Lightning**
- **Wind Speed**
- **Hail Threats**



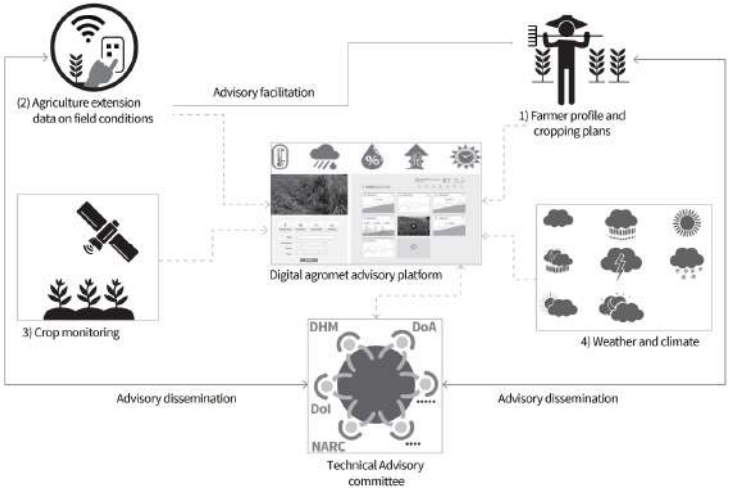




https://servir.icimod.org/science-applications/high-impact-weather-assessment-toolkit/

Localizing public sector agromet advisories for resilient agriculture

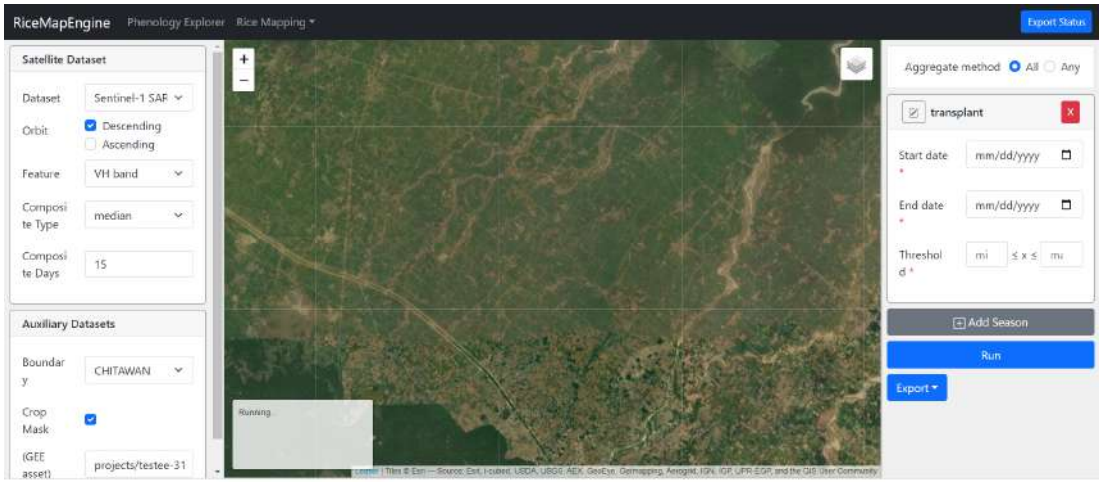
Setting-up institutional and technological mechanism at district level – Chitwan, Nepal

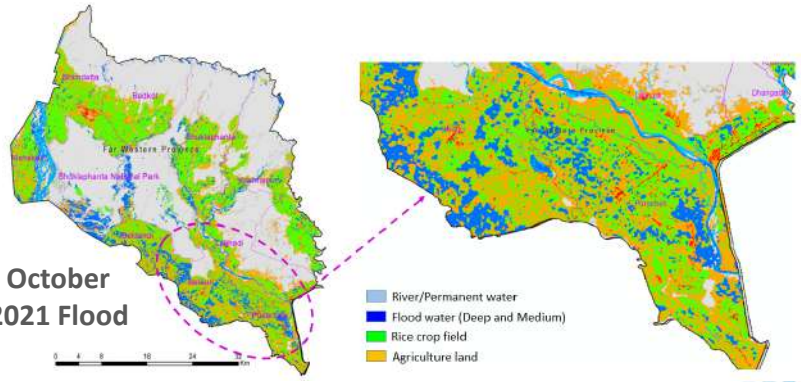


Strengthening in-season crop assessment to support agriculture planning and climate risk management in Nepal

- **Co-development and customization of algorithms in local context**
- **Easy-to-use service (RicemapEngine) design aligned with existing institutional function**
- **Institutional capacity building at all levels**

Satellite remote sensing based crop area maps provided critical information on finalizing 2020 rice crop production estimates when conventional assessment was constrained due to COVID-19 restrictions.





https://www.icimod.org/success-stories/annual-report-2020/data-for-food-security-planning-in-nepal/

Building on capacities for resilient future

- **Continuing working with key national institutions on expanding users, enhancing service functions as per emerging needs to support the service adoption process.**
- **Working with multilateral development banks for designing earth observation data supported risk financing services**
- **Promoting use of data products and service for processes like Loss and Damage assessment**
- **Integration of climate risks and adaptive capacity assessments in the formulation agriculture landuse policies**

Thank you

Seasonal water outlook and implications for farmers in the Indus basin

FAISAL MUEEN QAMAR AND SHER MUHAMMAD

8 MINS READ

Croplands in the Indus plains, Yazman, Bahaw
Photo: Faisal M. Qamer/ICIMOD.

The cryosphere – snow, ice, and
permafrost – is an important so
of water in the Hindu Kush Him
Observed and projected estima