

MEETING REPORT

Side event: Development of a regional climate change forum in South Asia at the 6th International Conference on Climate Services (ICCS6)

10 February 2020, 15:15–17:15 | Meghdoot Seminar Hall, IITM, Pune, India



The Met Office – UK and the International Centre for Integrated Mountain Development (ICIMOD) jointly organized a side event at the 6th International Conference on Climate Services (ICCS6) to explore the establishment of a regular and sustainable regional forum on climate change and the use of future climate projections in South Asia. The South Asian region is represented by eight countries namely Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka. Currently, the region is inhabited by 1.89 billion people.

The side event brought together participants representing national meteorological and hydrological services, multilateral organizations, academicians, and producers and users of climate information attending the four-day conference. The event served to share experiences and ideas for developing and trialling a new forum under the Asia Regional Resilience to a Changing Climate (ARRCC) programme in South Asia. ARRCC, a four-year programme started in 2018, aims to strengthen the provision and uptake of weather and climate services across South Asia. Although regional in nature, ARRCC focuses on the most vulnerable countries in the region, primarily Afghanistan, Bangladesh, Nepal, and Pakistan. During the two-hour side event, participants engaged in facilitated group discussions to first identify existing forums and modes of engagement, as well as discuss key gaps

and needs, and secondly to explore opportunities for developing and sustaining a regional knowledge forum on climate change to enable effective knowledge exchange among the target communities.

Panel discussion: The need for a new climate change forum for knowledge exchange in South Asia

The side event kicked off with a panel deliberating on the need for a new climate change forum for knowledge exchange in South Asia. The panel discussion set the stage for further discussions on the development of a regional climate forum.

Rupa Kumar Kolli, Executive Director, International CLIVAR Monsoon Project Office (ICMPO), at the Indian Institute of Tropical Meteorology (IITM) shared a resounding yes to the idea of a regional climate forum. Kolli intimated that he had proposed a regional climate forum (RCF) for South Asia at the global review of the regional climate forum of Africa (RCOF) in Tanzania.

There is a lot of inconsistency in how regional climate information is accessed and applied by different countries in our region. The various approaches being used need to be compared at a regional scale and guidelines for best practices defined in the generation of such projections. Regional climate change projections are being extensively used to assess impacts, and for planning mostly at the national levels. It will be beneficial for countries in a region with common climate concerns to share their experience, with a view to develop good practices guidelines. Establishing good practices to represent the inherent uncertainties in downstream impacts is critical to ensure quality and consistency in climate projections. An increased volume and accessibility of model simulations for assessing climate change impacts, feeding into developing national and other adaptation plans, also involve risks of misuse and misinterpretation. A regional forum will help bring all countries on board and look at the drivers of change in a collaborative way from a regional perspective.

The World Meteorological Organization (WMO) has setup RCOFs worldwide with the main focus on seasonal prediction. It is moving away from RCOFs towards regional climate forums (RCF). A RCOF can be a subset of the RCF, and unlike national climate outlook forums, RCFs need not be limited to technical people only. An RCF can be a regional marketplace to show what has been done and what can be done. This could grow into an event of a much bigger scale. Almost two hundred people attend the Greater Horn of Africa Climate Outlook Forum (GHACOF), and this is encouraging news to replicate a similar forum in this region. RCOF mechanisms that are currently in place can be effectively expanded to cater to the needs of developing and disseminating regional climate change information products. It is also important to not dilute the effort with too many regional forums.

Mandira Singh Shrestha, Programme Coordinator, Climate Services Initiative, ICIMOD shared that weather and climate often cross boundaries. Addressing them in isolation is not enough. The diversity of knowledge and experiences differs from country to country in the region with heterogeneous capacity and thereby provides us opportunities to learn from each other's experience and know how through a regional platform. ARRCC aims to reach out to the most vulnerable and avoid the impact of disasters. From a services perspective, sharing and learning from each other during generation, curation, translation and use of climate information is very important. Feedback loops are an important aspect for services, and a regional climate forum could provide such a platform for enhancing communication and common understanding between providers and users. The idea of establishing a regional climate forum was seeded through a consultative process at regional workshops that brought together users and producers of climate information organized by ICIMOD and the Met office under the ARRCC programme.

R Krishnan, Executive Director, Centre for Climate Change Research (CCCR), IITM echoed some of the thoughts presented by the panellists. He said that clarity on the mandate of such a forum is important. Weather and climate are transboundary in nature. How do we to define the region? CORDEX has different regional scale models that provide climate information. IITM developed CORDEX SA at a 50 km domain and has been widely used by the South Asian research community; various peer-reviewed papers are available. The Hindu Kush Himalaya (HKH) Assessment Report too used CORDEX SA results. IITM is currently developing a new global climate model, with increased resolution (37 km) over the tropics. It is equally important to build the capacity of people in South Asia to understand and use such climate products. Wintertime snow, the Karakorum anomaly are important processes that need to be understood better. Weather anomalies in the region – snow in Rajasthan this year, the effect of El Niño–Southern Oscillation (ENSO) – that can disturb circulations need to be understood better across boundaries and different time scales. It is very important to understand the scope of a regional climate forum.

Joseph Daron: An open forum that cross boundaries across different communities - user and producers of climate information.

David Corbelli: The South Asia region is very large. THE HKH region also has its own characteristics and is an important sub-region. What are the panels' thought on this? What about the extensive coastlines?

Mandira Singh Shrestha: ICIMOD's work is not just limited to the mountains as mountains have upstream-downstream linkages. Rapid glacier melt affects water availability in the downstream regions similarly intense rainfall in the upstream catchments can bring about extensive flooding in the downstream. What happens within 4.2 million square kilometres of the HKH, affects a much larger area. Communities downstream are impacted more adversely by changes in the mountain ecosystems upstream.

Question: What are the successes from the climate forum in Africa? What can be replicated in South Asia? Why was it successful or popular?

Rupa Kumar Kolli: The RCF in the Greater Horn of Africa (GHACOF) has been in operation for over 20 years. It is an organic movement with a large attendance of over 250 people annually. This allows a sizeable representation of the different actors at the forum who congregate in response to an open call for participation. This is a good way of reaching out, for outreach on the importance of climate information. There are as many as 8-9 breakout sessions on health, community, media etc. that happen during the forum. An association of climate journalists is an off shoot of the RCOF process and has been instrumental in garnering participation every year. RCOFs provides seasonal predictions - they meet every year at a fixed time and delivers seasonal predictions at regular intervals annually. GHACOF takes different climate sensitive themes every year.

A mandate need not be thoroughly defined for a RCF and can be narrowed down with experience over the years. A forum can be sustained as long as a regional institution takes ownership and ensures that the forum happens every year regularly. A regional institution needs to ensure that this process is captured.

Group discussion: key challenges and needs in existing forums and modes of engagement.

ICIMOD and Met Office experts led a group discussion to identify key challenges and needs in existing forums and modes of engagement. The group exercise sought answers to the following questions.

What relevant forums or modes of engagement currently exist?

SNo	Description	Type	Organisation responsible
1	South Asian Climate Outlook Forum (SASCOF)	Regional Forum	IITM
2	The Regional Association II (Asia)	Regional	WMO
3	Climate Action Network for South Asia	Regional	
4	Environment Journalists Network of South Asia	Regional	
5	Gobeshana		
6	Hydromet Forum	Regional forum	
7	SAARC	Regional forum	Government
8	ICIMOD	Regional organization	Intergovernment
9	Centre on Integrated Rural Development for Asia and the Pacific (CIRDAP)	Regional organization	Intergovernment
10	IBKF – Indus Basin Knowledge Forum (ICIMOD)	Regional forum	
11	UIBN – upper Indus basin network	Regional forum	
12	National Monsoon Forums/NCOFS	National, across region	

What are their strengths and limitations?

The operationalizing the above climate service forums are great beginning. In view of their current status, it seems the existing forums are unable to precisely cater the needs of “generation next people” of South Asia. Hence forth, the current participants of the ICSS6 could move towards the

direction of a dedicated climate service forum for South Asia to meet the emerging needs in view of changing climate and expectations of smart people.

Strengths	Limitations
Regularity	Funding
Sustained	Very fragmented (ISIMPA- CMIP, UIBM- IBKF; BIMSETC- SAARC)
Interaction platforms – SASCOF, BIMSTEC, ICIMOD	Limited mandate
Outreach, Stakeholder engagement	Ability to resolve scientific (model) variations
Representation from nationals	Limited user participation
Strong regional leadership (RCC Pune and RIMES)	Limited interaction between the organizations
Good project financing	Focus only on seasonal outputs (forecasts)
Infrastructure established (to some extent)	Too national or too global (large scale)
Science is established	No focussed regional perspective
Good availability of data	No systematic engagement of stakeholders
HIMAP – comprehensive report, IPCC for the HKH; science to action; leveraged networks; good training and climate change workshops; multi sectoral.	Regularity is lacking
Good Collaboration	Lack of observational data for verification
	Lack of capacity to interpret data

What gaps remain to promote and enable knowledge exchange on climate change?

- Linkages between stakeholders and policy makers
- Long term observational data
- Large geographical distribution
- No guidance on interpretation
- Funding issue
- Sustainability
- Uneven technical capacity
- Lack of sectoral information
- Gaps remain to promote and enable knowledge exchange on climate change
- Climate information are not available at finer scale
- Absence of adequate network among climate practitioners/ researchers/ students/ stakeholders
- Lack of sector specific climate services particularly livestock health, fishery, crops in view of threats from emerging transboundary disease, pests or zoonotic pathogens (which might appear owing to climate change)

- Climate change might mediate huge migration in South Asia due to increase in number or intensity of disasters. Inadequate information pertaining to climate services and migrants or labours involved in different sectors.
- Seasonal forecasts are unavailable at microscale
- Skill development through “Climate Services” doctoral or post-doctoral scholarships for South Asian talents
- Capacity building of South Asian researchers/ academician currently engaged in “climate services” activities
- Fund raising campaign with prospective donors

Carousel exercise: opportunities for a new and/or enhanced forum

A “Carousel” exercise addressed opportunities for a new and/or enhanced forum. Table hosts at different tables addressed specific questions.

Table 1: Forum objectives, who should convene and who should participate?

Table Host: Santosh Nepal, ICIMOD

Forum objectives:

- Improve South Asian monsoon simulations and predictions
- Regional carbon budget
- Monitoring precipitation (rain and snow) , glaciers and water resources (water cycle)
- High resolution satellite data
- Ensure the climate service data for the benefit of South Asian people to sustain production and livelihoods (SDGs)
- To develop a climate driven model to assess the impact on sectors

Who should convene?

- Regional organization in South Asia (climate science organization)
- IITM Pune, ICIMOD and
- National hydro-met agencies (Bangladesh, Nepal, Bhutan, India, Afghanistan)

Who should participate?

- Participation from South Asian countries
- Experts from the developed countries (Europe, Asia, North America and rest of the world)
- Hydro-met agencies
- Agriculture users
- Practitioners, students, scholars
- Self-help group

Table 2: Alignment and expansion of the regional climate outlook forum (SASCOF)

Table host: Joseph Daron, Met Office – UK

- Not all sectors will have the same interest in both seasonal and long-term climate information. However, some sectors – e.g. food security and water – will be interested to engage on multiple time-scales.
- The Ministry of Environment do not currently attend SASCOF. As a key stakeholder, we would need to consider other ways to engage them in a forum.

- Having a climate expansion would not be needed for every SASCOF – perhaps one every two years as a “special focus” session.
- Contextualizing the seasonal forecast with information on long-term climate variability would be very useful. This is already done to some extent, but could benefit from more explicit consideration of longer time-scales.
- Any discussion of climate change impacts on the monsoon, would need to acknowledge advances in understanding the South Asian monsoon as a region-specific phenomenon.

Table 3: Products, services or activities that could benefit from a forum

Table host: Mandira Singh Shrestha, ICIMOD

Participants suggested ideas regarding tangible products that a regional forum could generate.

Products:

- Quarterly newsletter update of each country
- Synthesis for Policy makers (SPM) on climate change analysis report (similar to an IPCC for South Asia)
- Impact assessment tool for various sectors
- Downscaling tool
- Regional weekly and seasonal forecasts (with different timescales and lead time)
- Publications
 - Journal articles
 - Success stories
 - Proceedings
 - Dedicated journal for the region of international standards)
- Annual report and State of Climate report in South Asia

Services:

- Web based portal on future climate scenarios/series
- Common approaches, methodologies, models agreed by each country- increase reliability and trust
- Consensus on the use of climate change projections
- Dissemination approaches of the findings

Activities:

- Strengthen regional capacity
 - Trainings
 - Secondments
 - Exposure visits
 - Awareness raising
 - PhD Exchange program
- Monitoring of snow, glaciers, precipitation through remote sensing
- Monitoring of shifting of tree lines through remote sensing
- Climate Service Day celebration for awareness raising
 - 1 km walk for climate services

Table 4: Options for remote and virtual engagement

Table host: Mir Matin, ICIMOD

- Thematic webinars
- Online discussion forums
- Video conference
- App based communication
- Help desk
- Online toolkit including data reports and tutorials
- Social media channels
- Web portal – organising information contribution by stakeholder