

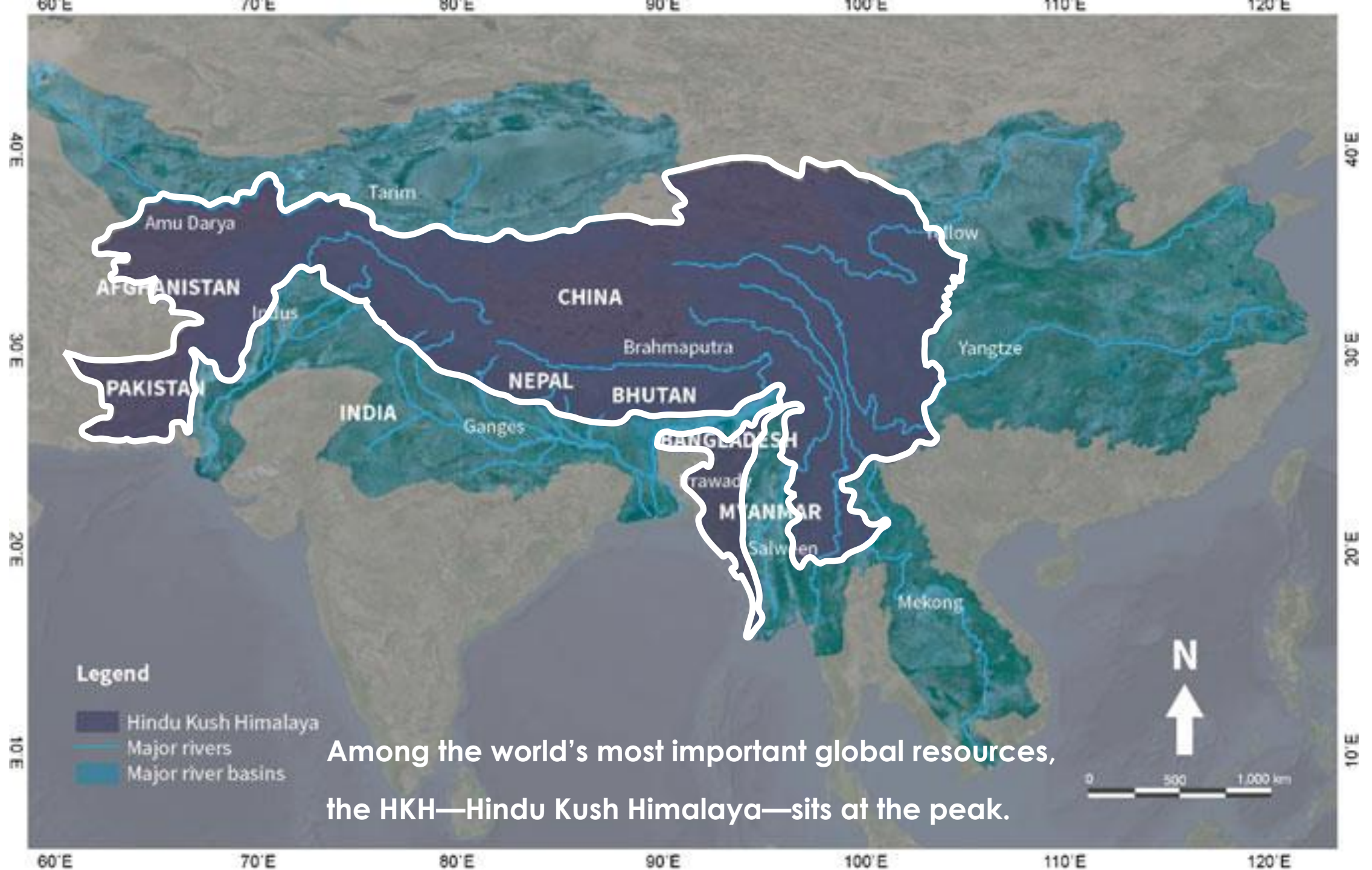


Capacity building in EO and GIT - bridging the gender and capacity gap in the HKH region



Poonam Tripathi, PhD
Geospatial Training Analyst
International Centre for Integrated
Mountain Development (ICIMOD)
Kathmandu, Nepal

Email: Poonam.Tripathi@icimod.org



Among the world's most important global resources, the HKH—Hindu Kush Himalaya—sits at the peak.



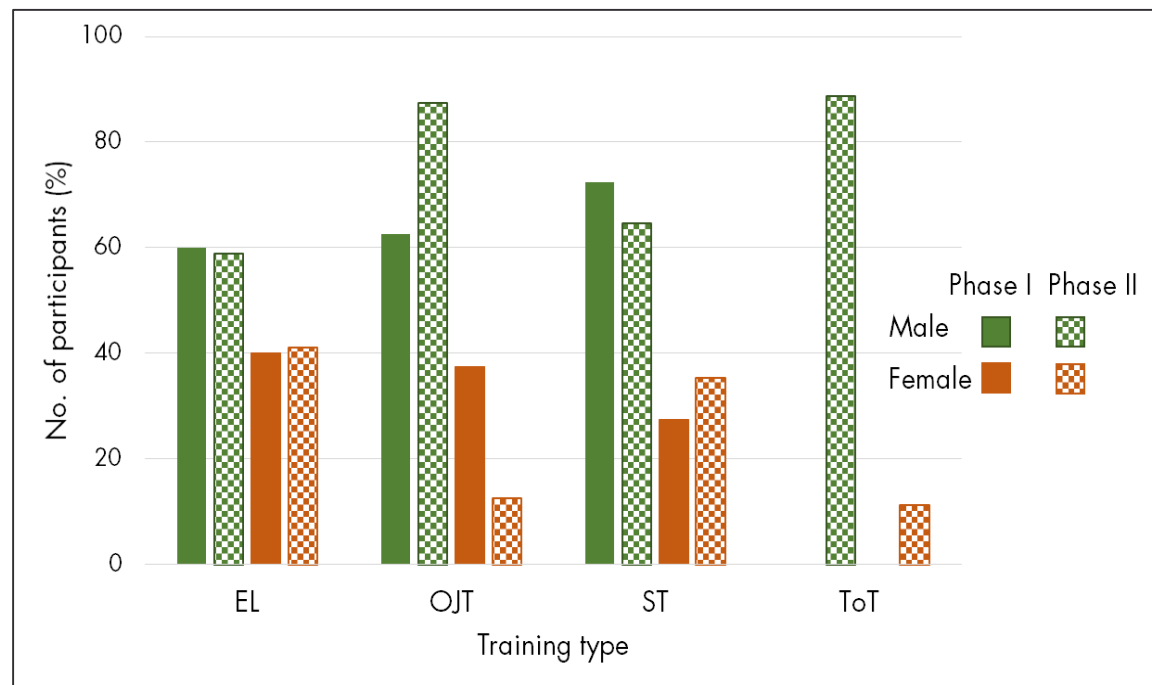
Strength of GIT & EO

- Multi-disciplinary
- Innovative & emerging
- Analysis, modelling & Visualization
- Decision support capability
- Impact in policy making

Gender Gap in GIT & EO Capacity

➤ Capacity gap and Gender disparity

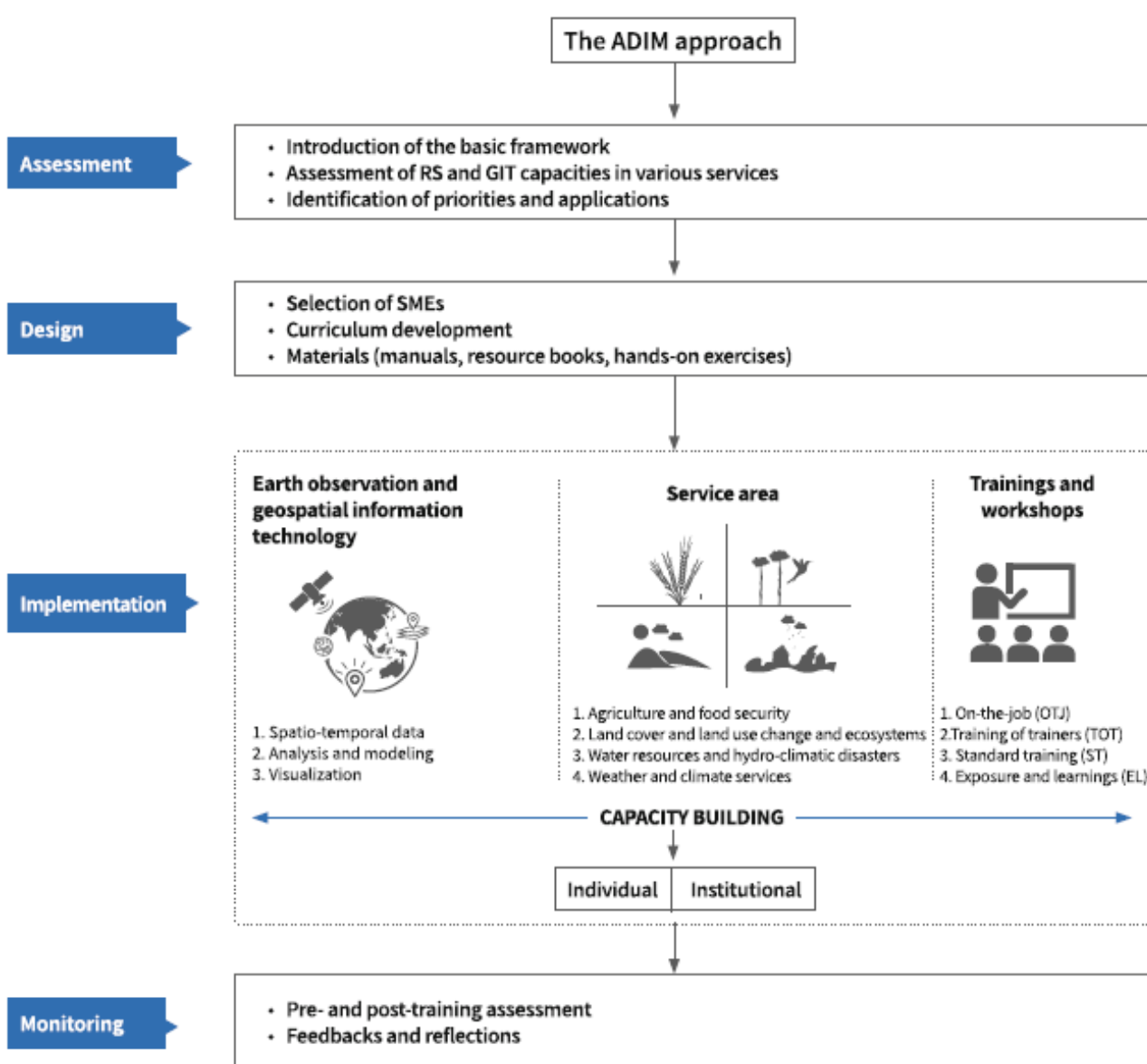
A clear inter-linkage between gender and EO and GIT technology has been observed wherein the **dominance of male due to societal gender stereotype** sheds the light on why there is gender gap in the workforce in HKH region (Goodrich et al., 2021)



Gender based comparison of participation for SERVIR-HKH Phases I and II

*EL: Exposure & learning; OJT: On-the-job training; ST: Standard training; TOT: Training of trainers

*No TOT was organized during SRVIR Phase - I



Capacity building framework within SERVIR-HKH

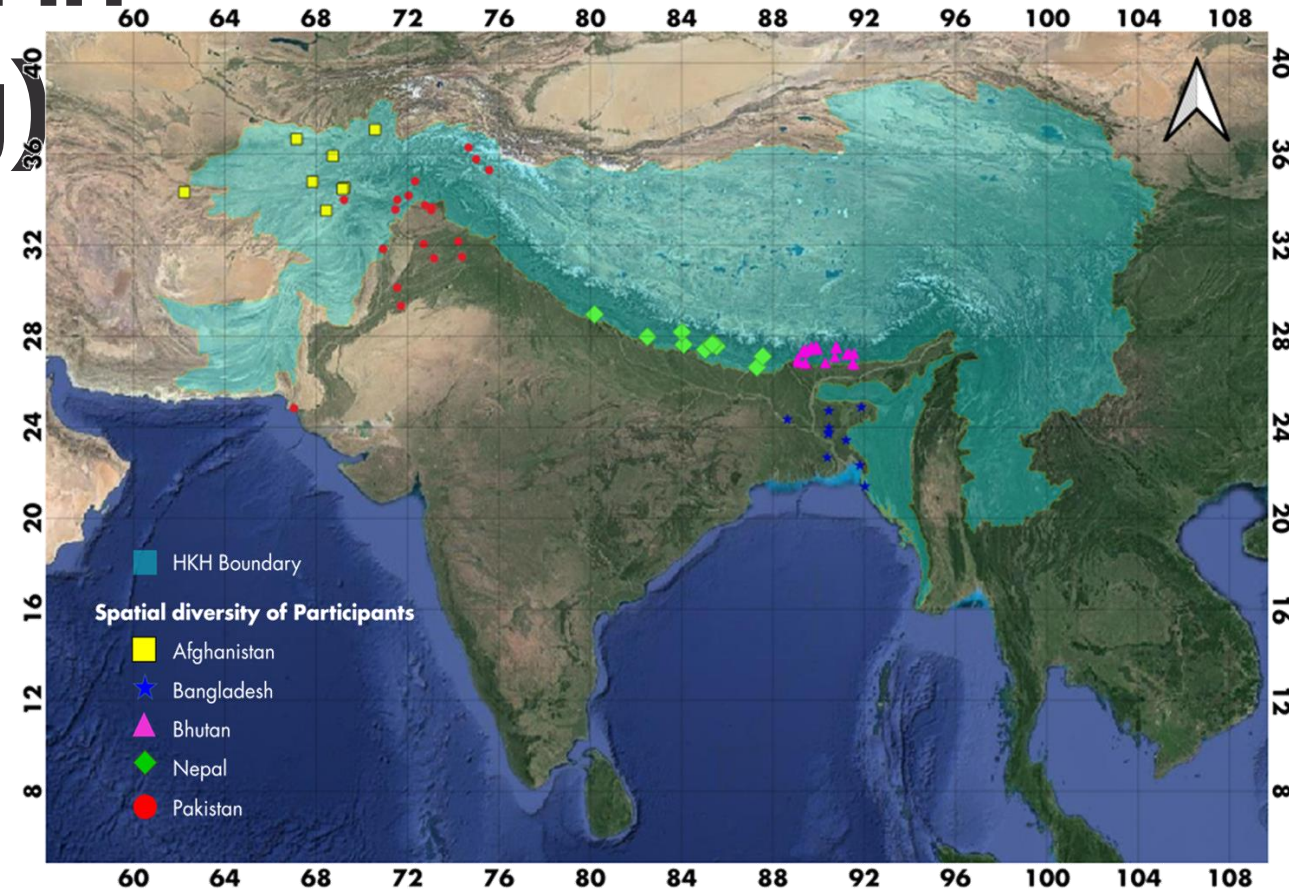
Source: Thapa, R.B., Tripathi, P., Matin, M.A., Bajracharya, B. and Sandoval, B.E.H., 2021. Strengthening the capacity on geospatial information technology and Earth observation applications. In Bajracharya, B. et al. (eds.), Earth Observation Science and Applications for Risk Reduction and Enhanced Resilience in Hindu Kush Himalaya Region, Springer Nature Switzerland AG.

Capacity Building Pathways

- **Assessment:** User needs and corresponding technological solutions
- **Design:** Customized training materials
- **Implementation:** On the job (OJT), training of trainers (TOT), Exposure learning (EL), standard training (ST)
- **Monitoring:** Review and feedback

Empowering Women in GIT, 2021 (Outscaling)

- Open calls (Country specific)
- Selection of candidates (~50 from each country)
- Communication and back-up channel
- Training delivery
- Impact tracing



Spatial distribution of the training participants in 2021

Empowering Women in GIT (Outscaling)

Participants from diverse background

a) Subject: Ecology, agriculture, engineering, crisis management, environmental sciences, hydrology, forestry, geology, geotechnical, water, natural resources, zoology, geography, statistics, urban planning, communication, medical, and many others

b) Work: Students, researchers, engineers, lectures/professors, school teachers, officers, supervisors and freelancers

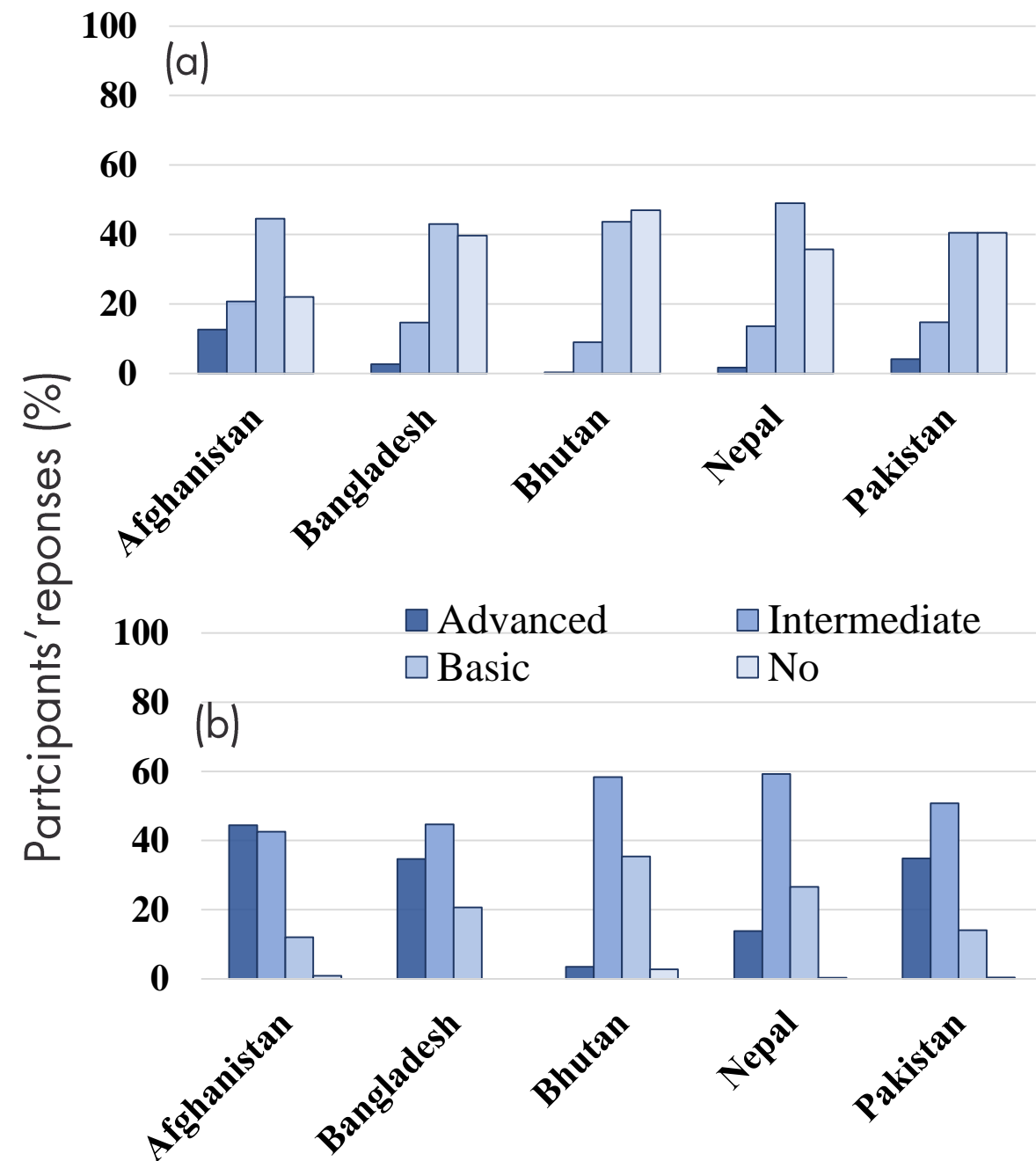
Overall, 235 Participants representing 160+ unique institutes

Job description	Afghanistan	Bangladesh	Bhutan	Nepal	Pakistan
Analyst	-----	-----	-----	-----	2
Assistant	2	-----	-----	-----	-----
Engineer	2	7	1	5	1
Forest ranger	-----	-----	2	-----	-----
Geologist	-----	-----	2	-----	-----
Intern	2	3		10	5
Lecturer	2	4	11		7
Meteorologist	-----	3	-----	-----	1
Officer	3	9	18	10	2
Professor	-----	2	-----		1
Researcher	2	12	-----	5	7
Specialist	2	-----	-----	-----	-----
Supervisor	-----	-----	5	-----	-----
Teacher	1	-----	5	-----	4
University student	7	4	5	6	8
Other	17	6	2	13	7
Total	40	50	51	49	45

Impact tracing

Maximum shift from **No** to **Higher** knowledge levels was observed for **Bhutan (44%)** followed by Bangladesh and Pakistan (40% each), Nepal (35%) and Afghanistan (21%), respectively

Evaluation for **relevancy and quality** carried out for five different levels (i.e. extremely high, high, moderate, low and not at all) revealed that participants were highly satisfied overall as more than 90% responses were at extremely high and high levels

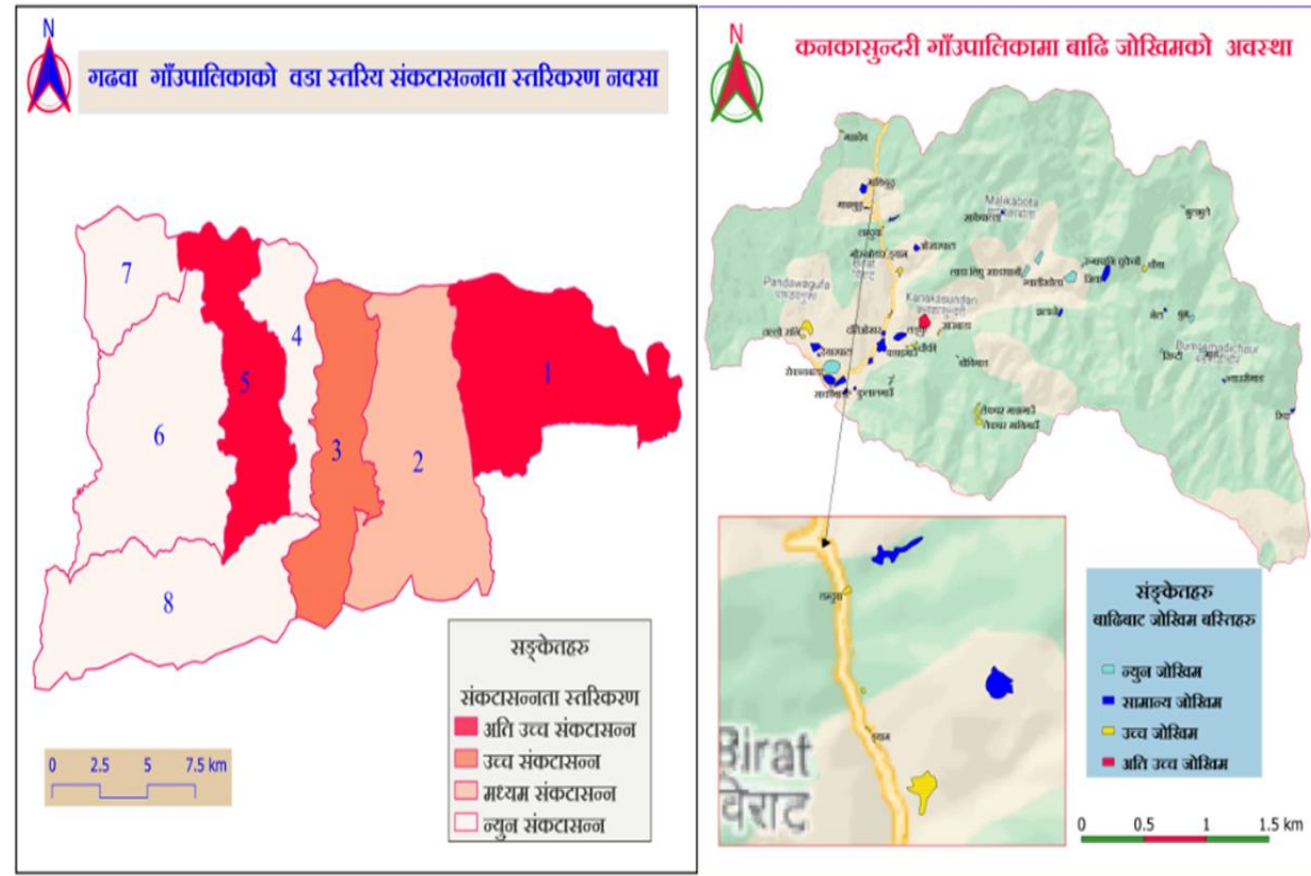


Comparative (a) pre and (b) post training responses of the participants



Impact

- Rama Ghimire a freelancer in the field of environmental science from **Nepal** could create ~ 50 climate risk maps for her work after the training
- Kainat Javed, former research assistant from Global Change Impact Study Center, **Pakistan** highlighted the training helped her to boost confidence to work for highlighting ecological imbalances, understand climate variation, urban sprawl, land degradation and gender mapping.



Maps created by Mrs. Rama Ghimire post training



School students learning GIT in the GIS lab, Bhutan



Taslima with the colleagues collected GPS field data for monitoring climate change impact at Gazipur, Bangladesh



Impact

- Choki Wangmo, Geography teacher in Shaba Higher Secondary School, **Bhutan** shared that this training opened a new landmark of understanding the concepts of EO and GIT that will certainly help her to build the capacity of school students via teaching and learning process.
- Taslima Zahan, a scientific officer from **Bangladesh** Agricultural Research Institute (BARI) shared that this training opened a window for her to look for solutions and apply the knowledge and skills in her project work *'modeling climate change impact on agriculture and developing mitigation and adaptation strategies for sustaining agricultural production in Bangladesh'*.



Highlights of Lesson Learned

CHALLENGES

- Diverse group of participants
(Subject, work, knowledge level)
- Regional knowledge gap
- Cultural, Social and Language
- Virtual training
- Impact tracing
- Others
(Selection process, Customization, Post training, Local)

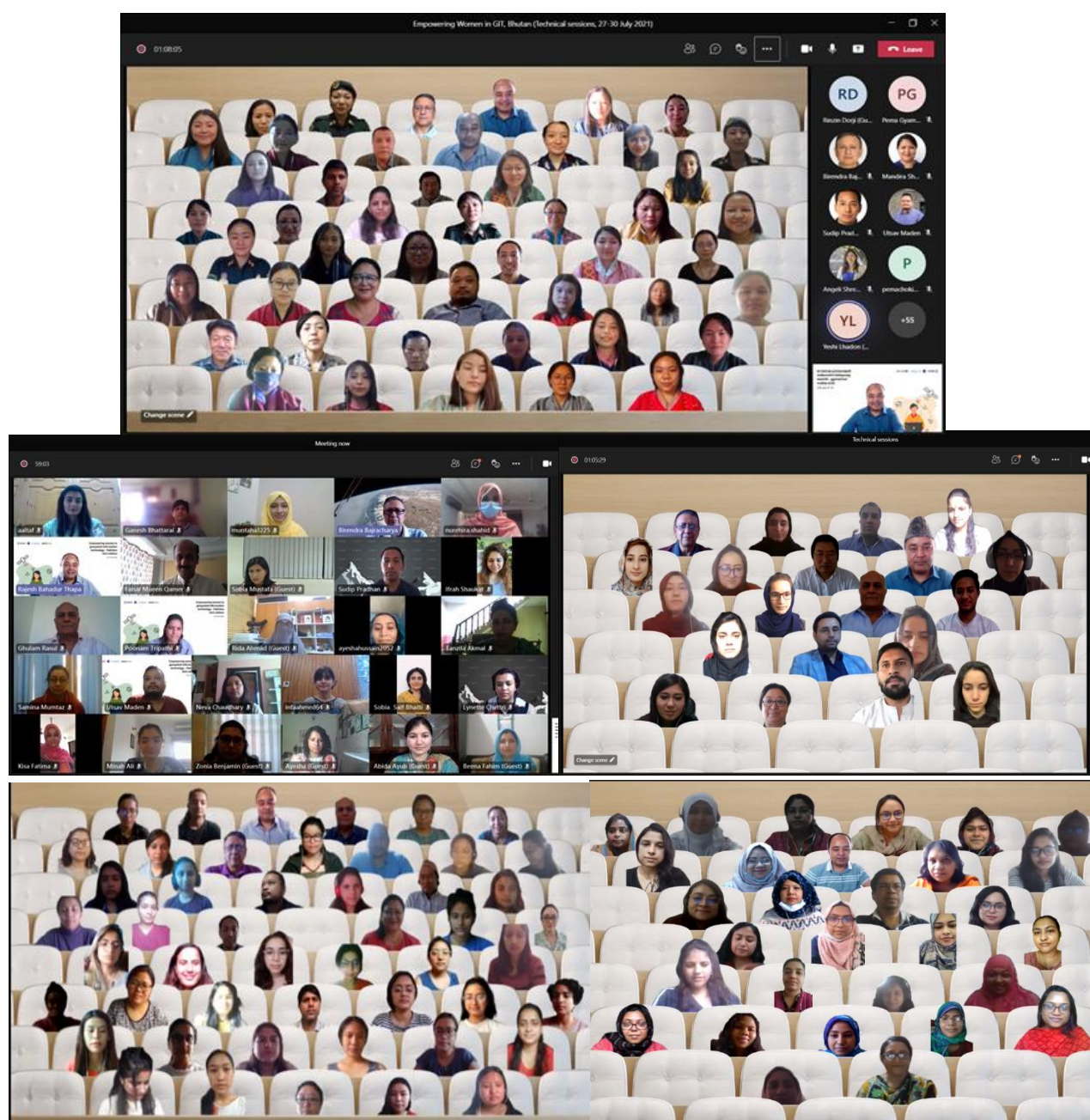


OPPORTUNITIES

- Diverse exposure and well-designed materials from diverse subject
- Analyze the needs and demands for effective CB in future
- Cross cultural interaction, regional SMEs and MOOC presentation
- Wider Outreach
- Long term monitoring via tracer survey
- Collaborative work on mini projects

WAY FORWARD

- Impacted over 400 women in the HKH region via in-person and virtual trainings (57% in 2021)
- Organizing advanced subject and/or theme-specific trainings
- Collaborative mini-projects with the outstanding participants for educational or research works





Thank you

Let's protect
the pulse.