

## Training Modules & Session Overview

### Day 1 – June 30, 2025

Time (PKT)	Programme
09:00–09:30	Registration
09:30–10:00	<b>Inaugural session</b> Tilawat (Recitation) of Quran Majeed Welcome remarks – <b>TBC</b> Opening remarks – <b>TBC</b> Overview of ICIMOD’s cryosphere capacity building program in Pakistan – <b>Sher Muhammad</b> , ICIMOD
10:00–10:15	Group photo and Tea/Coffee break
10:15–11:00	Introduction to Cryosphere, changes, and impacts – <b>Sher Muhammad</b> , ICIMOD
11:00–11:30	Ongoing field-based glacier monitoring and gaps in the HKH – <b>Sharad Joshi</b> , ICIMOD
11:30–12:30	Field-based Glaciers mass balance Techniques – <b>Sharad Joshi</b> , ICIMOD
12:30–13:30	Lunch break
13:30–15:30	Hands-on Exercise on mass balance monitoring (stakes installation, distribution, data interpretation etc) – <b>Sharad Joshi</b>
15:30–15:45	Tea/Coffee break
15:45–17:00	Practical session on glacier mass balance data processing and analysis – <b>Sharad Hoshi</b> Hands on Practice

### Day 2 – July 01, 2025

Time	Programme
09:00–09:30	Introduction to GPS – <b>Sher Muhammad</b>
09:30–11:00	Hands-on Exercise – Using GPS for glacier monitoring – <b>Sher Muhammad</b>
11:00–11:30	Tea/Coffee break
11:30–12:30	Ongoing field-based permafrost Monitoring – <b>Prashant Baral</b> , ICIMOD (Online)
12:30–13:30	Lunch break
13:30–14:30	Permafrost Key Concepts, site selection and data collection – <b>Prashant Baral</b> (Online)
14:30 – 15:30	Hands-on exercise: Permafrost data analysis in Google Colab – <b>Prashant Baral</b> (Online)
15:30–15:45	Tea/Coffee break
15:45–17:00	Hands-on exercise: Permafrost data analysis in Google Colab – <b>Prashant Baral</b> (Online)

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**Day 3 – July 02, 2025**

<b>09:00–09:30</b>	Snow monitoring, challenges and opportunities – <b>Sher Muhammad</b>
<b>09:30–10:30</b>	Snow monitoring in UIB – <b>Syed Hammad Ali</b> , WAPDA
<b>10:30–11:00</b>	Tea/Coffee break
<b>11:00–11:45</b>	Overview of instruments for high-altitude snow monitoring – <b>Sharad Joshi</b>
<b>11:45–12:30</b>	Uncertainty estimation in field-based glacier and snow monitoring – <b>Sharad Joshi/Sher Muhammad</b>
<b>12:30–13:30</b>	Lunch Break
<b>13:30–14:30</b>	Methods for ground-based snow monitoring – <b>Sher Muhammad</b>
<b>14:30–15:00</b>	Tea/Coffee Break
<b>15:00–16:00</b>	Automatic weather stations data processing– <b>Sharad Joshi</b>
<b>16:00–17:00</b>	Participants’ reflections on the training, closing remarks, and certificate distribution

**Glacier Safety and Mountaineering Training****Day 4: July 03, 2025:**

Travel from Islamabad to Hunza

**Day 5: July 04, 2025:**

High altitude Sickness and Safety Precautions; Mountaineering Equipment, its use, and practice

Basic Mountaineering Safety Skills

**Day 6: July 05, 2025:**

Use of Harness; rigging system for glacier travel; use of rope; knots; practice of using rope

Walking in alpine boots and heavy backpacks on steep terrain, glacier with fresh snow and debris cover

**Day 7: July 06, 2025:**

Walk on glacier including rope party, changing position

Using ice axe; alpine boots; crampons,

**Day 8: July 07, 2025:**

crevasse rescue; changing safety system; ascent by jumar; descent by belay device

Rescue techniques; lowering victim, transferring stretcher; lifting sled

**Day 9: July 08, 2025:**

Running belay on snow slopes; use of snow anchors and ice screws; descent by belay device and using prusik knot

Participants practice, feedback, and certificate distribution

**Day 10: July 09, 2025: Return Back**