



Example of development cooperation in Tajikistan Finnish-Tajikistan Meteorology Project FINTAJ

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The FINTAJ-project purpose is the improved capacity of the Tajikhydromet to deliver weather, climate, and environmental information and early warning services for the benefits of Tajikistan society.





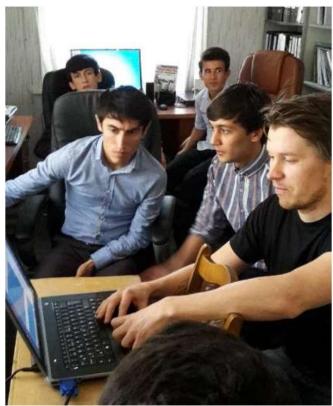
Results from FINTAJ phase I

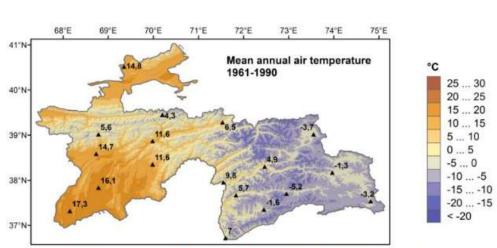
- Enhancing the capacity to provide Climate Services; climate modelling, tailored climate services; training and support to participate climate negotiations
- Modernisation of Air Quality Monitoring, including training
- Improved strategic and technical planning capacity; Modern observation and weather service technology
- Improved capacity of Tajikhydromet staff on modern observation technology and service process
- During the ongoing FINTAJ I extension phase, regional glacier & snow monitoring needs have been discussed together with the Tajikhydromet, with a target of implementing these in Phase II of the FINTAJ project. Prospects for joint scientific glacier research have also been identified.





Result 1: Improved capacity to provide Climate Services





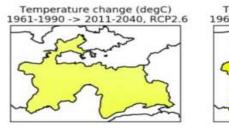
Interpolated annual temperatures based on Tajikhydromet observations

Juha Aalto demonstrating Krieking-interpolation at Tajikhydromet Climate Center





Result 1: Improved capacity to provide Climate Services



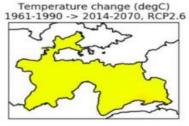
Temperature change (degC) 1961-1990 -> 2011-2040, RCP4.5



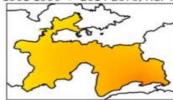
Temperature change (degC) 1961-1990 -> 2011-2040, RCP8.5



(rows).

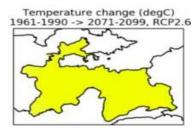


Temperature change (degC) 1961-1990 -> 2014-2070, RCP4.5

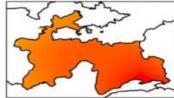


Temperature change (degC)

1961-1990 -> 2014-2070, RCP8.5



Temperature change (degC) 1961-1990 -> 2071-2099, RCP4.5



Temperature change (degC) 1961-1990 -> 2071-2099, RCP8.5



1 2 3 4 5 6 7 Multi-model mean projection of annual mean temperature change in Tajikistan (in °C) for different future periods (columns) under different global CO₂ emission scenarios





Result 2: Improved air quality observation system





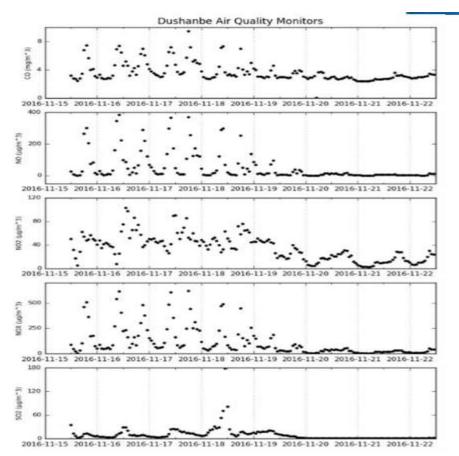
Writing standard operating procedures for the PM₁₀ filter sampler

Learning air quality monitoring instrument maintenance





Result 2: Improved air quality observation system



Example of the real time data appearing at the Tajikhydromet intranetserver





Result 3: Improved strategic and technical planning capacity Benchmarking study visits were arranged for the Tajikhydromet management to increase the capacity in the strategic and technical planning capacity. The study visits included not only technical aspect, but topics such as

- Management strategy
- Hydro Met policy
- Public and commercial weather services
- Early Warning Systemsand collaboration with authorities
- Communication strategy
- Customer relations- Human resources and training strategy
- Quality management principles





Result 4: Improved capacity of Tajikhydromet staff on modern observation technology and weather service process





Hands-on training on data logging of automatic weather stations





Improved capacity to perform Glacier & snow monitoring and – research

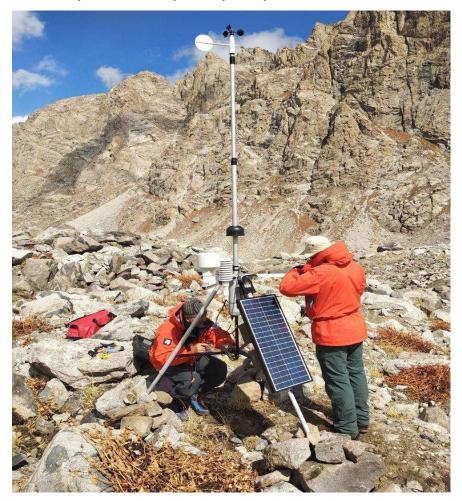


Glacier monitoring expeditions & joint research to study atmosphere-glacier interactions





Improved capacity to perform Glacier & snow monitoring and – research



Installing an Automatic Weather Station (AWS) next to the glacier.





Improved capacity to perform Glacier & snow monitoring and – research



Utilizing Unmanned Aerial Vehicles (UAV's) for airborne studies of the glacier.





Lessons learned

- Build trust
- Motivate those involved
- Utilize synergies between different actors and projects
- Take into account local infrastructure and environment when installing equipment
- Importance of maintenance, calibrations and spare parts





THANK YOU!