Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Department of Home Affairs FDHA
Federal Office of Meteorology and Climatology MeteoSwiss

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Senamhi
SERVICIO NACIONAL DE METEOROLOGÍA E HIDROLOGÍA DEL PERÚ

MeteoSwiss

User-tailored seasonal forecasts for agriculture

Creating socio-economic benefit through climate services in the Andes

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[1] Federal Office of Meteorology and Climatology MeteoSwiss, Zürich, Switzerland
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Outline

- Background
- Approach
- Challenges and lessons learnt

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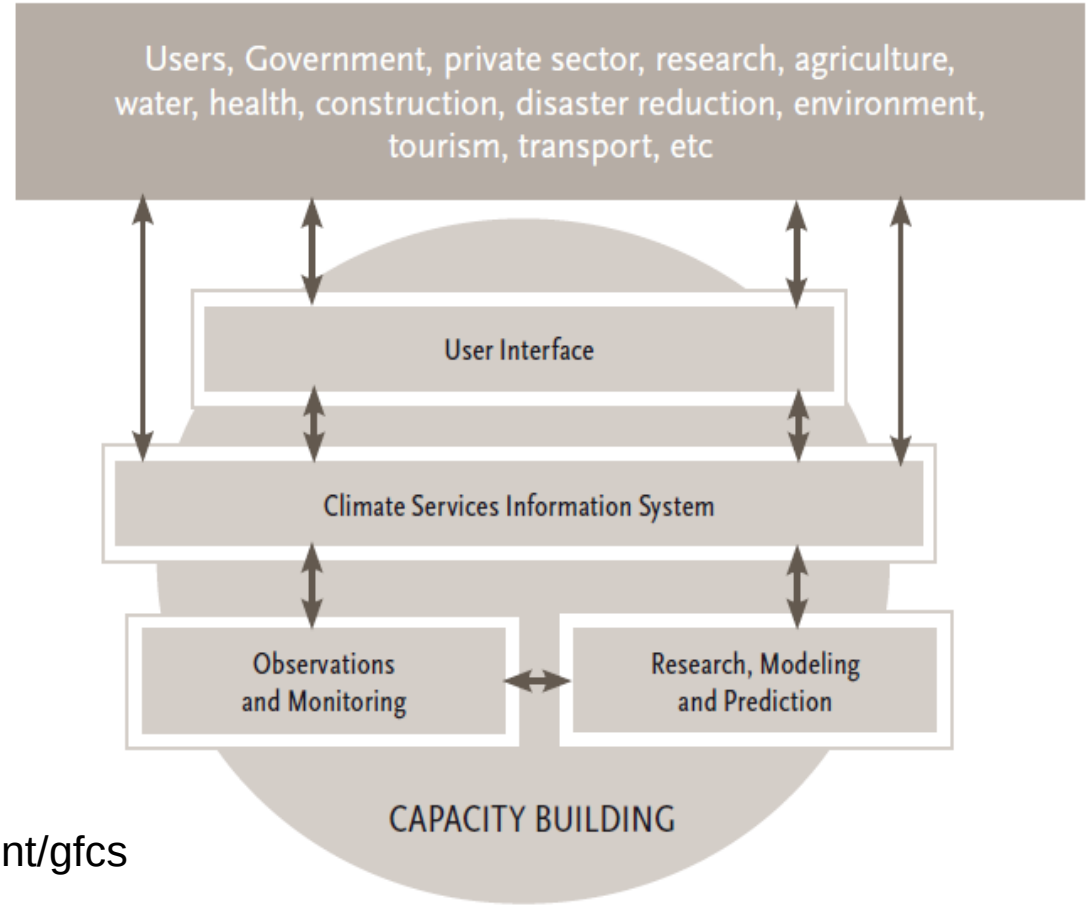
Project context

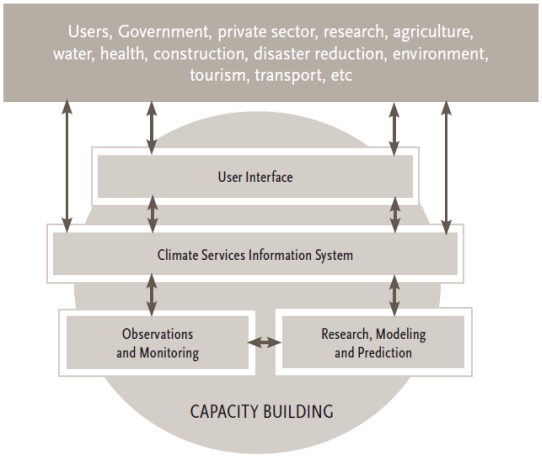
Global Framework for Climate Services (GFCS)



Source:
http://www.wmo.int/gfcs

Project context

GFCS



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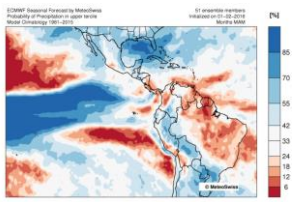
- Building an **interface** between users and providers & evaluating socio-economic **benefits**

- Producing user-tailored **climate information** for the **agricultural sector** in the Andean region



- Strengthening **training** in meteorology and climatology in Peru & the Andean region

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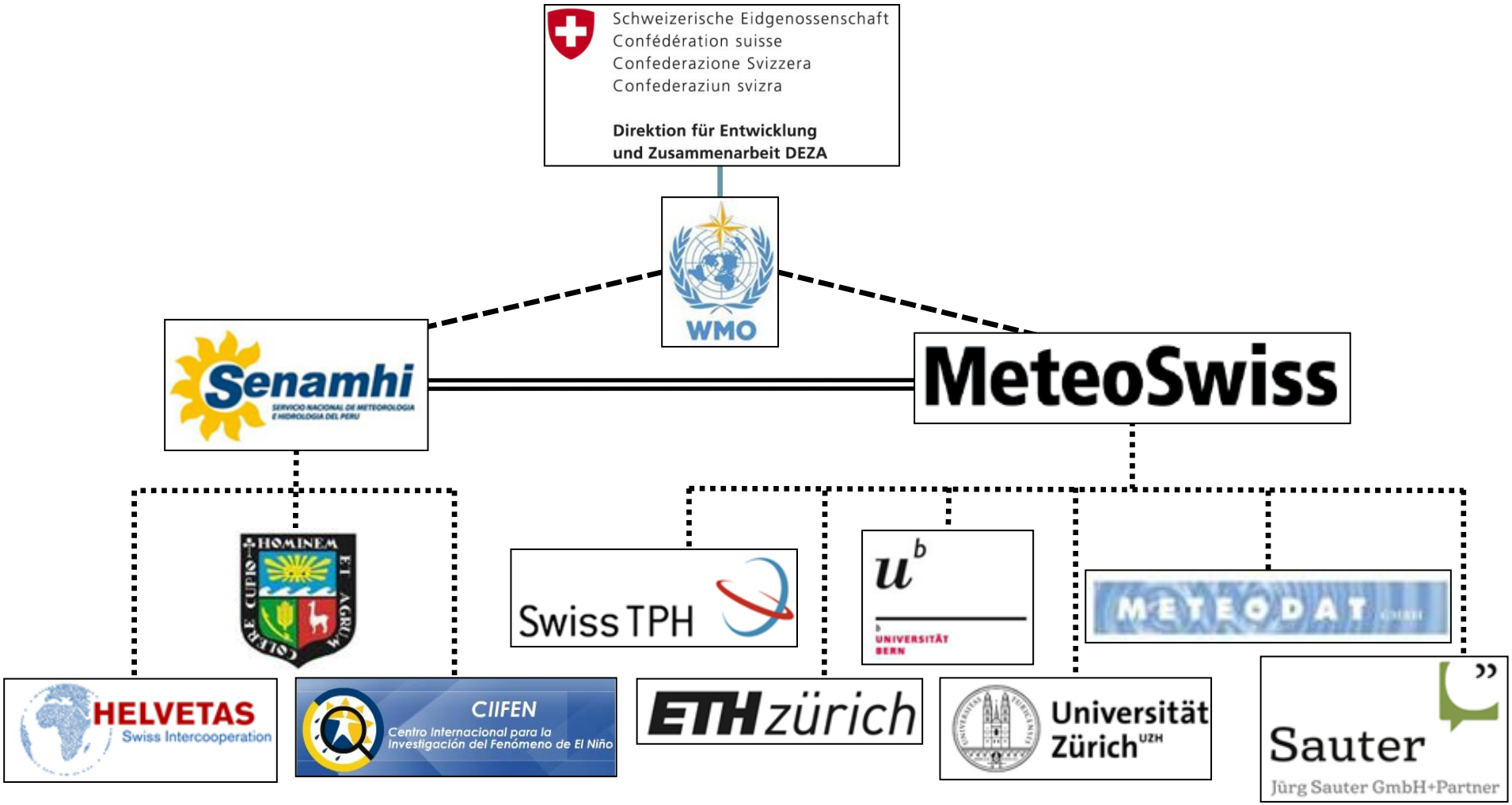
Project organisation



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Twinning - Approach

Close collaboration between equal partners, e.g.,:

- SENAMHI Peru and MeteoSwiss
- University La Molina & University of Berne

  - Scientific visits
  - On-the-job training
  - Courses

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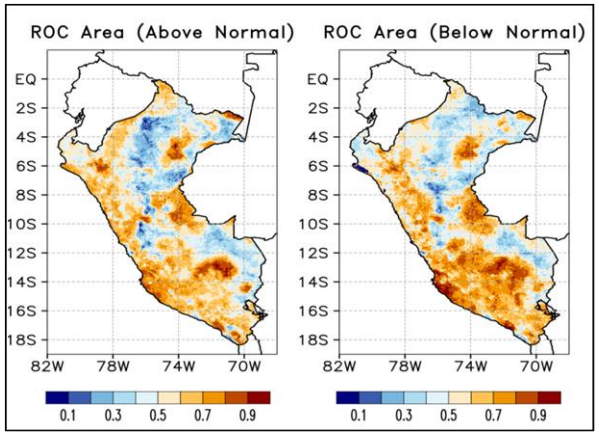
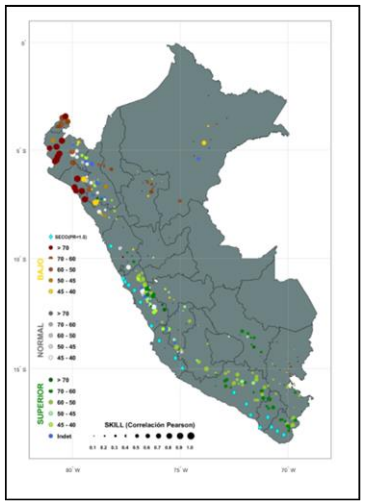
Examples of twinning achievements





Improving climate information

- Conduction of a blended course on verification for RA III
- Verification of CPT forecasts
- Development of prototype forecast products including skill information

- SENAMHI plays an active role in RA III, e.g.:
  - Collaboration with the Argentinean weather service on verification
  - Leading monthly briefings for seasonal forecasts

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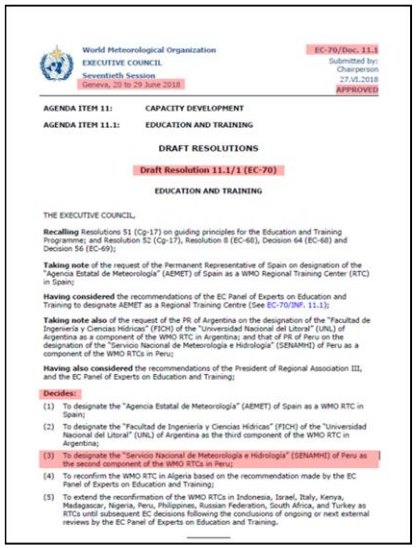
Examples of twinning achievements



World Meteorological Organization
EXECUTIVE COUNCIL
Seventieth Session
Geneva, 20 to 29 June 2018

EC-70/Doc. 11.1
Submitted by: Chairperson
27.VI.2018
APPROVED

AGENDA ITEM 11: CAPACITY DEVELOPMENT
AGENDA ITEM 11.1: EDUCATION AND TRAINING

DRAFT RESOLUTIONS

Draft Resolution 11.1/1 (EC-70)

EDUCATION AND TRAINING

THE EXECUTIVE COUNCIL,

Recalling Resolutions 51 (Cg-17) on guiding principles for the Education and Training Programme; and Resolution 52 (Cg-17), Resolution 8 (EC-68), Decision 64 (EC-68) and Decision 56 (EC-69);

Taking note of the request of the Permanent Representative of Spain on designation of the "Agencia Estatal de Meteorología" (AEMET) of Spain as a WMO Regional Training Center (RTC) in Spain;

Having considered the recommendations of the EC Panel of Experts on Education and Training to designate AEMET as a Regional Training Centre (See EC-70/INF. 11.1);

Taking note also of the request of the PR of Argentina on the designation of the "Facultad de Ingeniería y Ciencias Hídricas" (FICH) of the "Universidad Nacional del Litoral" (UNL) of Argentina as a component of the WMO RTC in Argentina; and that of PR of Peru on the designation of the "Servicio Nacional de Meteorología e Hidrología" (SENAMHI) of Peru as a component of the WMO RTCs in Peru;

Having also considered the recommendations of the President of Regional Association III, and the EC Panel of Experts on Education and Training;

Decides:

(1) To designate the "Agencia Estatal de Meteorología" (AEMET) of Spain as a WMO RTC in Spain;

(2) To designate the "Facultad de Ingeniería y Ciencias Hídricas" (FICH) of the "Universidad Nacional del Litoral" (UNL) of Argentina as the third component of the WMO RTC in Argentina;

(3) To designate the "Servicio Nacional de Meteorología e Hidrología" (SENAMHI) of Peru as the second component of the WMO RTCs in Peru;

(4) To reconfirm the WMO RTC in Algeria based on the recommendation made by the EC Panel of Experts on Education and Training;

(5) To extend the reconfirmation of the WMO RTCs in Indonesia, Israel, Italy, Kenya, Madagascar, Nigeria, Peru, Philippines, Russian Federation, South Africa, and Turkey as RTCs until subsequent EC decisions following the conclusions of ongoing or next external reviews by the EC Panel of Experts on Education and Training.

Capacity development

- Elaboration of an e-learning strategy
- Implementation of a Moodle platform at SENAMHI
- Conduction of blended courses at regional scale

- ➢ SENAMHI has taken ownership for training activities
- ➢ In June 2018, SENAMHI was officially designated as the second component of the WMO Regional Training Center in Peru

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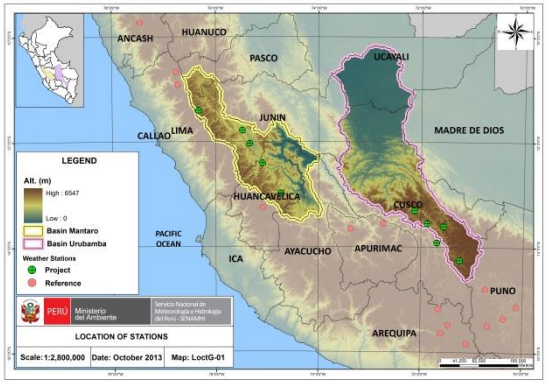
Challenges



Institutional

- Missing intermediary institutions in project set-up
- Discontinuity of employed staff
- Few human resources at NMHSs, e.g.:
  - SENAMHI Peru employs roughly the same number of people as MeteoSwiss (Peru: ~1'300'000km^2; CH: ~42'000km^2)

    ➢ Implementation of project goals additional to daily work

    ➢ Little time available for training

Technical

- Low station density & low quality of meteorological data
- Low quality of global datasets in the Peruvian Andes, e.g.:
  - Precipitation shift in Re-Analysis datasets
  - Low skill of seasonal precipitation forecasts

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Challenges

Cultural

- Language
- Differing working cultures
- Missing trust in governmental institutions
- Few experience with online training

Lessons learnt

Institutional

- Active and early involvement of stakeholders
- Involvement of intermediary institutions
- Inclusion of regional offices are key to reach user groups
- Institutional capacity building (to avoid loss of knowledge)

Technical

- Users may require information that cannot be provided
  - Communicating the limitations of climate information
- Low data quality / low model skill may hinder the production of climate information
  - Adapting project goals if required

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Lessons learnt

Collaboration

- Twinning approach as a recipe to success
  - Combination of technical exchange and capacity building fosters sustainability of project results
- Success is largely a consequence of experience, trust, and contacts established in the first project phase
- Importance of knowing other initiatives / projects with similar focus
  - Organization of session at EMS

Further information and contact

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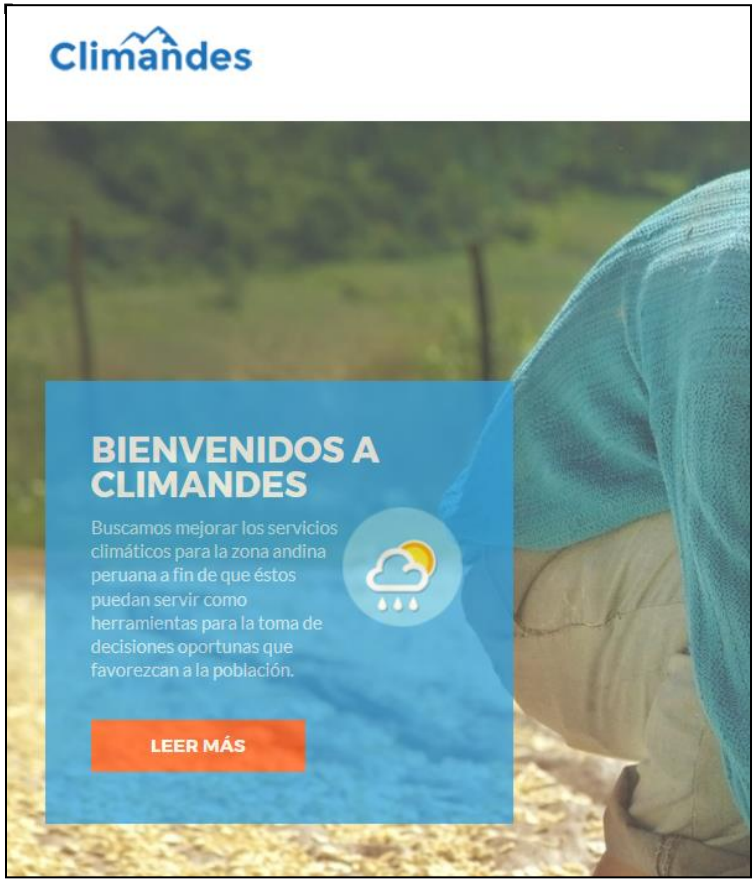
- climandes@senamhi.gob.pe

- www.meteoswiss.ch/climandes
- climandes@meteoswiss.ch



The project CLIMANDES-2 builds upon the first phase of the project (CLIMANDES-1) and aims to develop climate services for decision-makers in Peru and to improve the training of meteorologists in the Andean region. User-tailored weather forecasts can help the rural population in managing the impacts of climate change. The cooperation between MeteoSwiss and the Peruvian weather service is financed by the Swiss Agency for Development and Cooperation (SDC) and coordinated by the World Meteorological Organization (WMO).

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