Dialog zwischen Praxis – Verwaltung – Wissenschaft als Voraussetzung für die Umsetzung nachhaltiger Anpassungsmassnahmen: Chancen und Herausforderungen

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Swiss Scientific Consortium (ECS)

Meteo Swiss

Agroscope ART

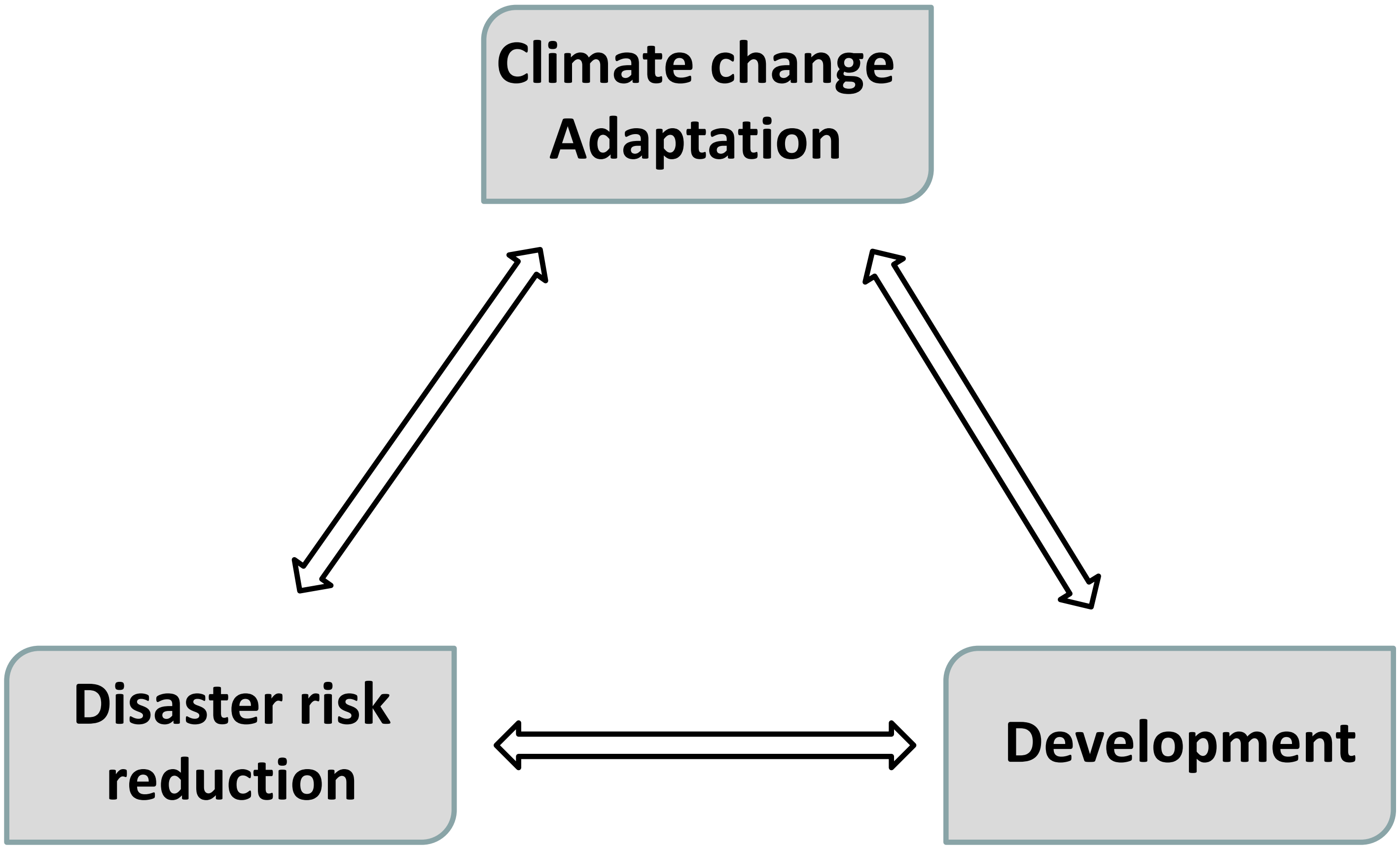
Partner Politik/Verwaltung: DEZA, BAFU, Weltbank, Comunidad Andina, SNF
Partner Praxis: Helvetas Swiss Intercooperation, CARE

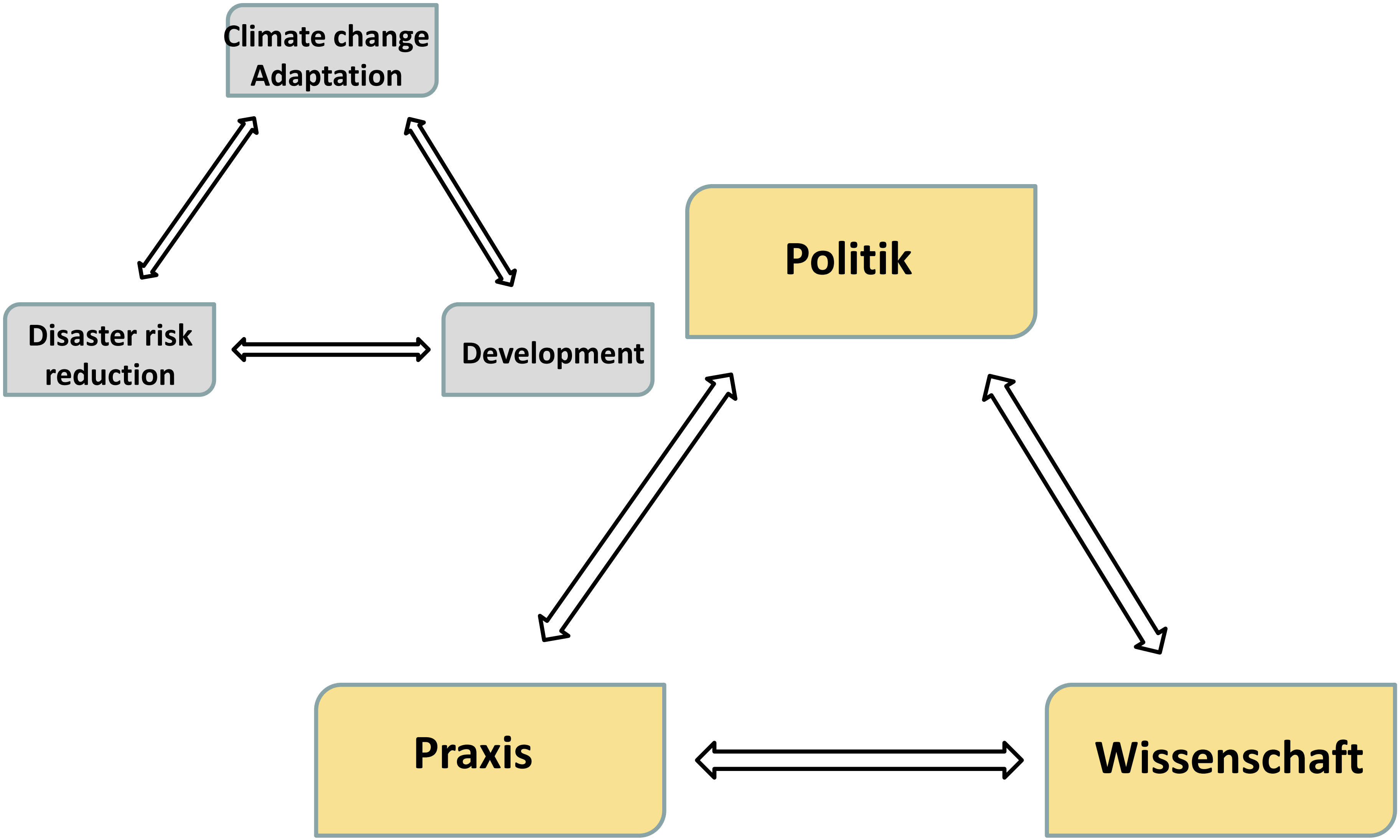
Guttannen, Kt . Bern

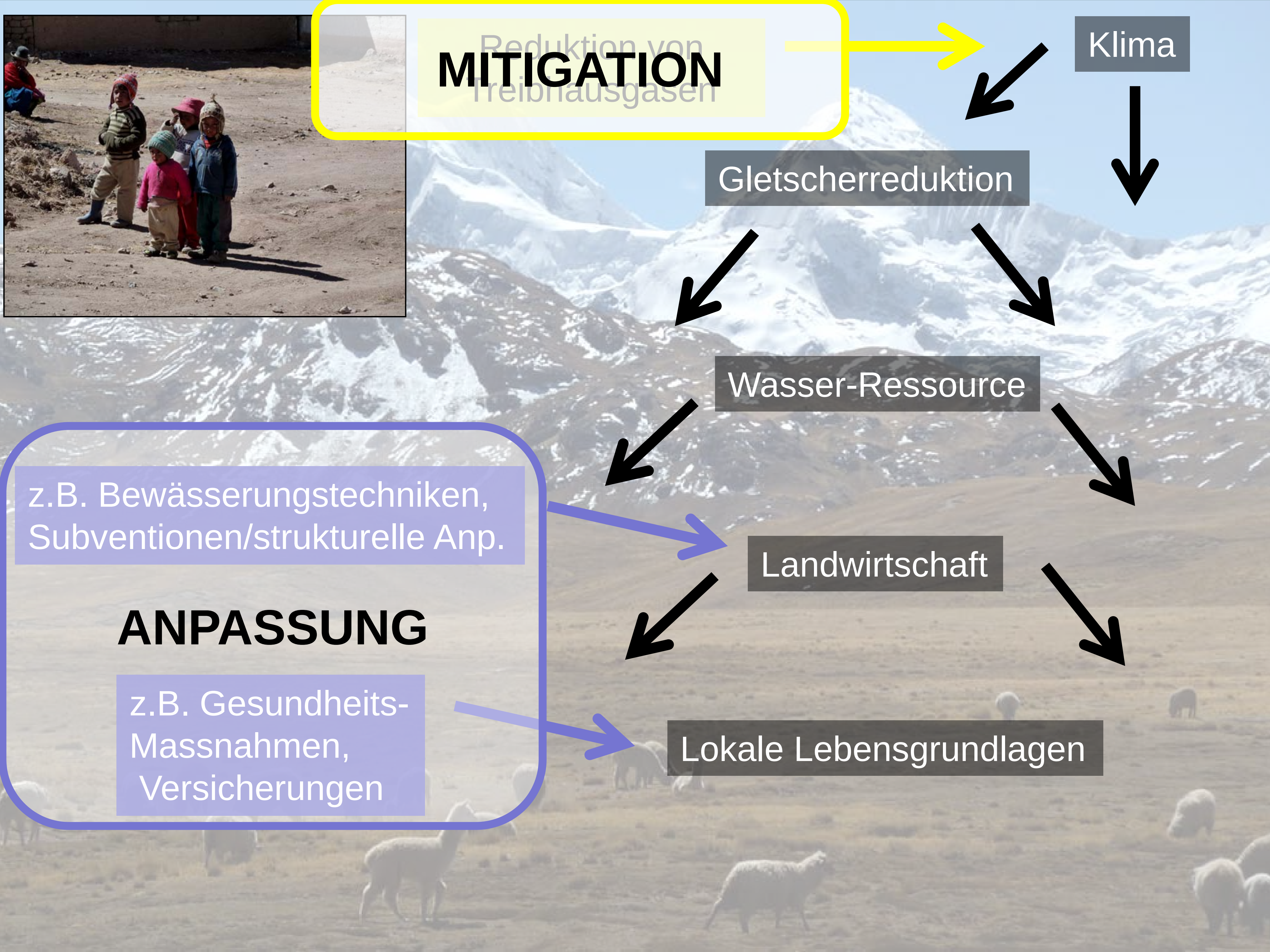

Phinaya, Altiplano, Peru
Klima-
Extreme
PREDES

COP16, Cancún

Achsen der internationalen Politik und Wissenschaft




Climate change Adaptation
Disaster risk reduction
Development
Politik
Praxis
Wissenschaft


MITIGATION
Reduktion von Treibhausgasen
Klima
Gletscherreduktion
Wasser-Ressource
Landwirtschaft
Lokale Lebensgrundlagen
z.B. Bewässerungstechniken,
Subventionen/strukturelle Anp.
ANPASSUNG
z.B. Gesundheits-
Massnahmen,
Versicherungen

Anpassungsprozess --- Wissenschaft - Praxis

Klimainformation

Impakte

Verletzlichkeiten

Risiken

Optionen zu Anpassungsmassnahmen

Implementierung

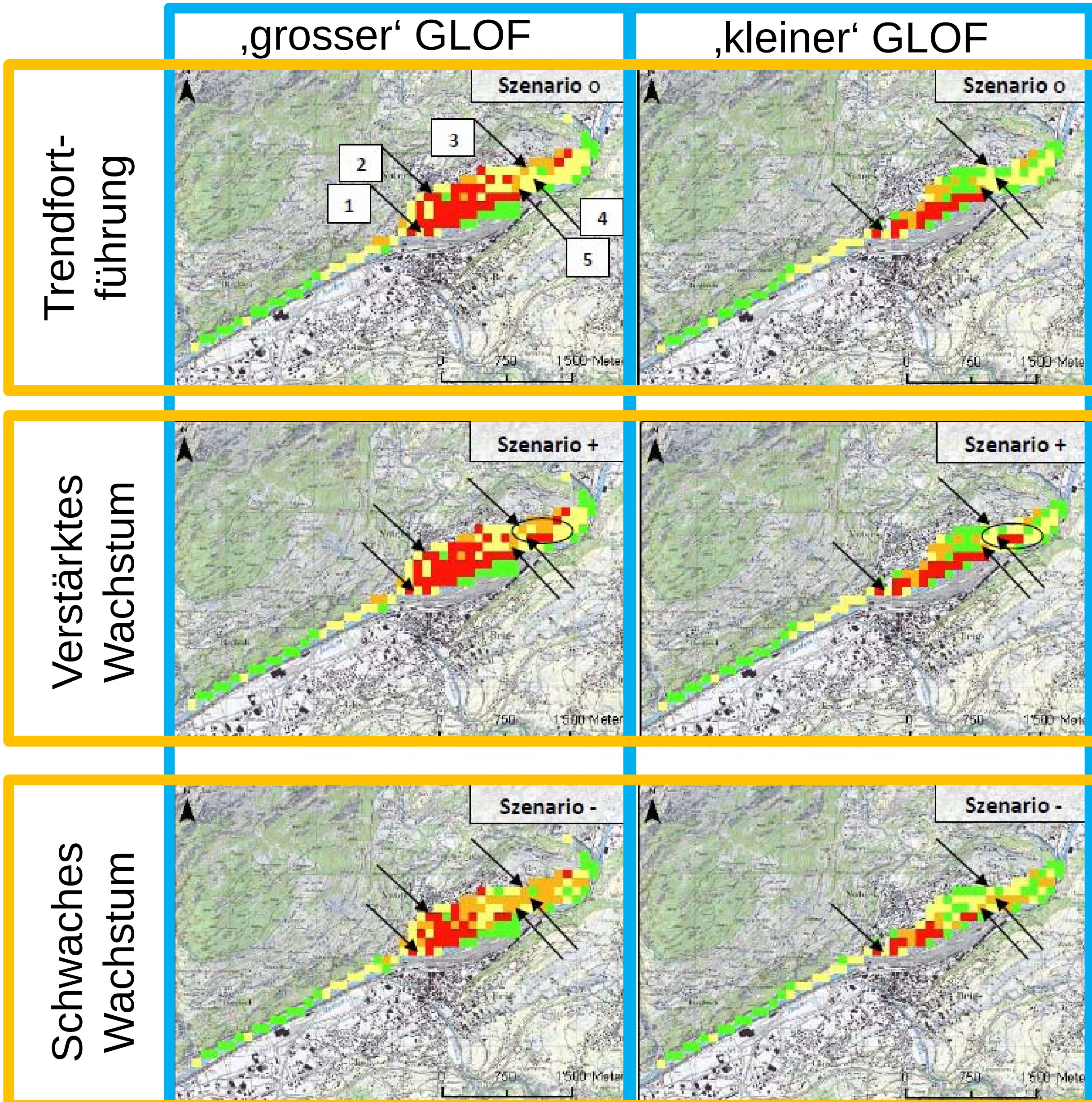
‚Kommunikation' mit end-user

Die 'letzte Meile' der Anpassung

Risiko-Szenarien für Naters, bezügl. Gletschersee-ausbrüchen aus der Aletsch-Region für 2045

Neue Risiken

Gletschersee Ausbruchsszenarien



Risiko

Very high
High
Medium
Low

Nussbaumer, 2011

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Early Warning Systems: The "Last Mile" of Adaptation

Recent scientific assessment studies of climate change impacts, including those from the Intergovernmental Panel on Climate Change, provide evidence of the negative effects of climate variability and change on natural and human systems. For instance, recent climate trends have caused loss in wheat and maize production, negatively affected coral reefs, and changed characteristics of some hazards in high-mountain regions. Assessment studies furthermore suggest that related risks to ecosystems, commerce, and daily life may increase over the coming decades as temperatures warm.

Adaptation to climate change is required to reduce the effects of unavoidable changes, especially for the most vulnerable regions and populations. Substantial international funding for adaptation, of the order of tens of billions of U.S. dollars annually by 2020, is foreseen under the Green Climate

and related risks. Two case studies from this region demonstrate the use of in situ climate observations and remotely sensed data in support of EWSs within the specific socio-environmental context of the Central Cordillera in Colombia and the Altiplano region in southern Peru (Figure 1).

Landslide and Flood Early Warning

Like many other parts of Colombia, the Central Cordillera is characterized by steep mountains, dense tropical vegetation, and a significant number of population centers, with a total of about 7 million people. Both long-lasting and intense rainfall events are recurrent climate hazards in this region, occasionally resulting in severe landslides and floods. The Combeima Valley in the Tolima province is notorious for such disasters, which have resulted in hundreds of human

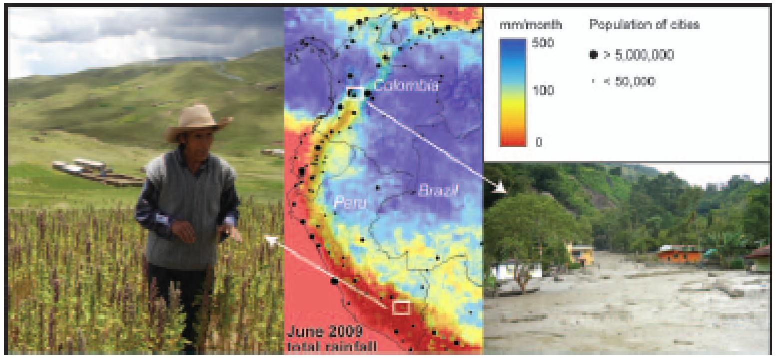

Fig. 1. (left) A farmer in his quinoa field at about 4000 meters above sea level in the Peruvian Altiplano (photo by C. Huggel). (middle) Rainfall map for the Andes for June 2009 based on Tropical Rainfall Measuring Mission (TRMM) Multisatellite Precipitation Analysis (TMPA) 3B43 data. High-rainfall areas in Colombia contrast with the dry conditions of southern Peru. (bottom right) Damage caused by the landslides of 1 July 2009 in the Combeima valley, central Colombia (photo by Regional Tolima Disaster Prevention Committee).

people were trained, and eventually a series of emergency protocols, institutional coordination, and preparedness activities were

Not many drought EWSs are operational worldwide, and no such system is in place for the Andes region. Existing systems else-

Einige Gedanken zu Chancen und Herausforderungen…

- Sowohl in konzeptueller als auch praktischer Hinsicht unterliegt Anpassung in allen 3 Bereichen (W.schaft, Politik, Praxis) einer ständigen Dynamik

- Anpassungs-Forschung ist eine junge Wissenschaft, stark interdisziplinär, mit noch viel Entwicklungspotenzial

- Verschiedene Zeithorizonte zwischen Wissenschaft, Politik und Praxis

- Schnittstelle und Überlappung zwischen verschiedenen Bereichen der internat. Politik, spez. Anpassung und Entwicklung (und Disaster Risk Reduction)

- Anpassung unter multiplen Unsicherheiten