

Adaptation to Climate Change in the Water Sector

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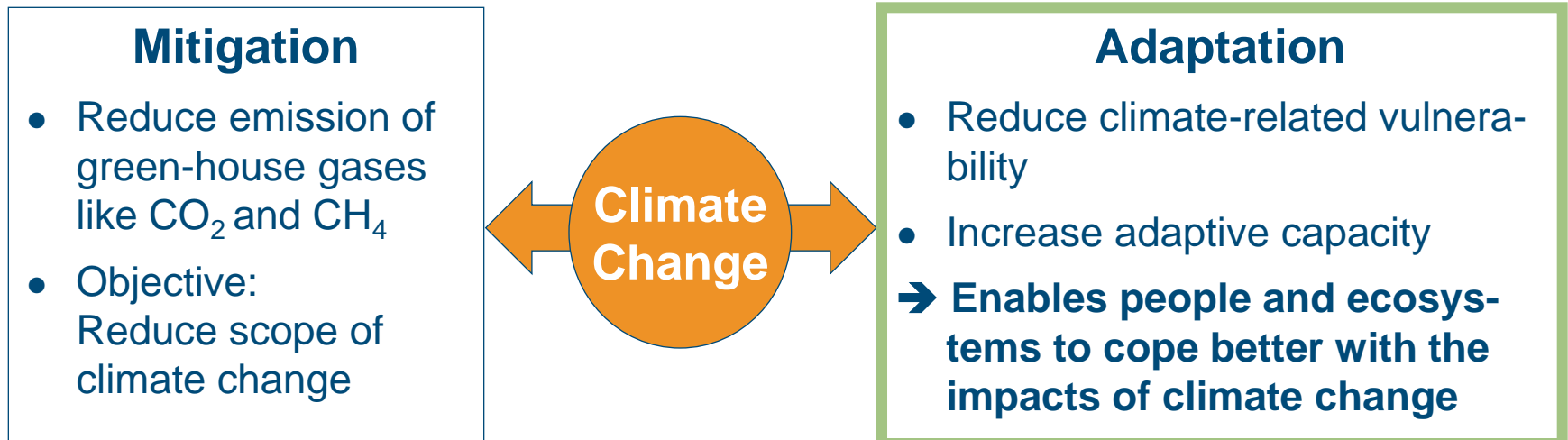
**Strategy and Policy Division Water and Solid Waste
KfW Entwicklungsbank**

**1st ICA Water Platform Meeting
Frankfurt, 8-9 March 2012**

Die Zukunftsförderer



- Climate change as a great challenge for developing and industrialising countries
- Impacts of climate change are visible already today → Climate variability
- Impacts of climate change include
 - Increase of temperature and evaporation,
 - Increase of extreme events like droughts and floods,
 - Sea level rises and melting glaciers,
 - Impacts on water availability and water quality.



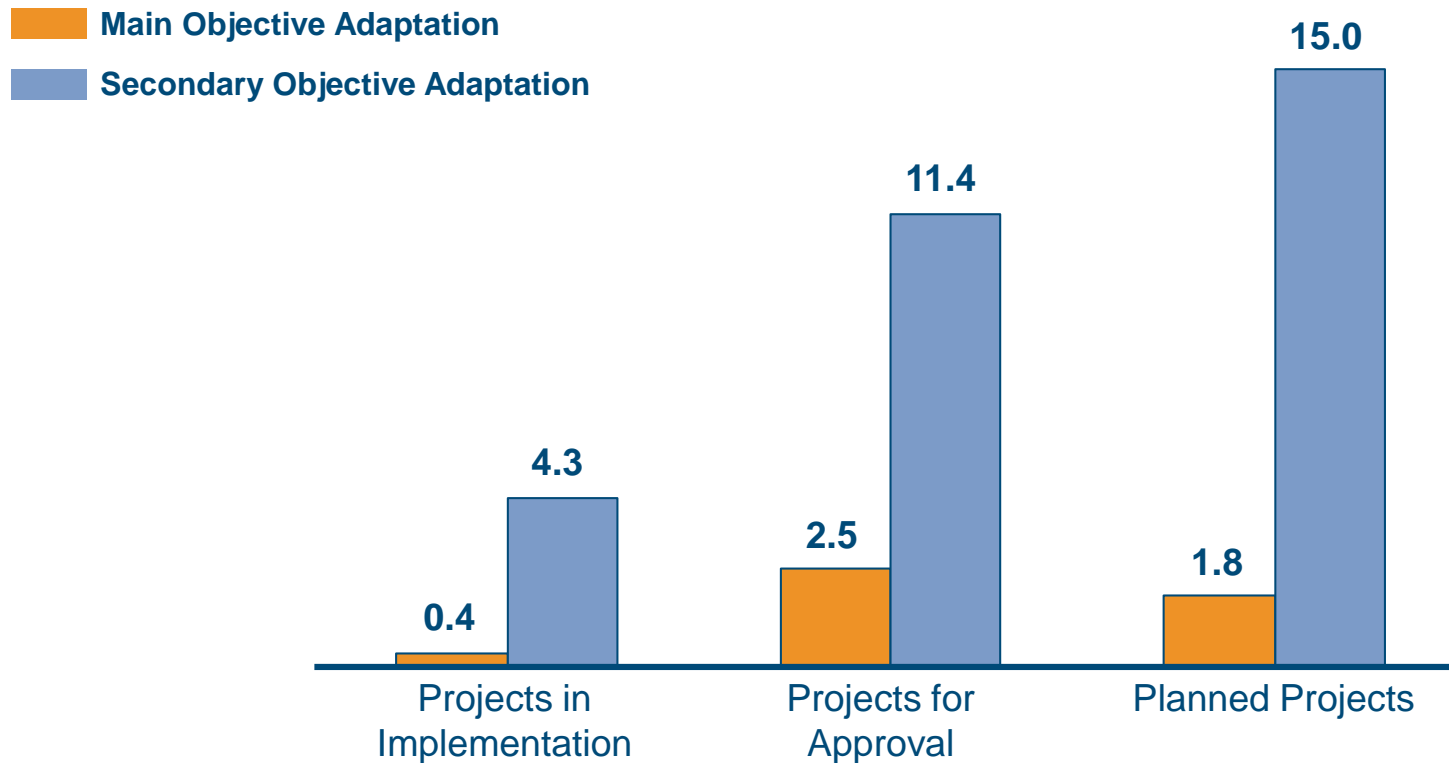
- Since COP 15 (2009) in Copenhagen, adaptation to climate change has become increasingly relevant
- Green Climate Fund agreed at COP 16 (2010) in Cancun to provide USD 100 billion per year by 2020 for mitigation and adaptation in developing countries
→ Implementation still to be defined
- Adaptation financing is still low compared to mitigation, but increasing
- Besides multilateral funding, significant bilateral financing is available
- COP 17 (2011) in Durban:
 - **National Adaptation Plans (NAPs) for LDCs and other developing countries,**
 - **“Work program on loss and damage” for climate related damages,**
 - **Adaptation committee.**

- February 2-3, 2012 at KfW premises
- More than 80 participants from over 20 countries
- Project market with different adaptation projects
- **Key messages:**
 - Climate adaptation is becoming more and more important for German Development Cooperation.
 - If mitigation is about energy, adaptation is about water.
 - Mainstreaming is the key to climate proof adaptation projects.
 - Adaptation is crucial, but also financing for current climate variability.
 - Cooperation with the scientific community is useful and necessary.



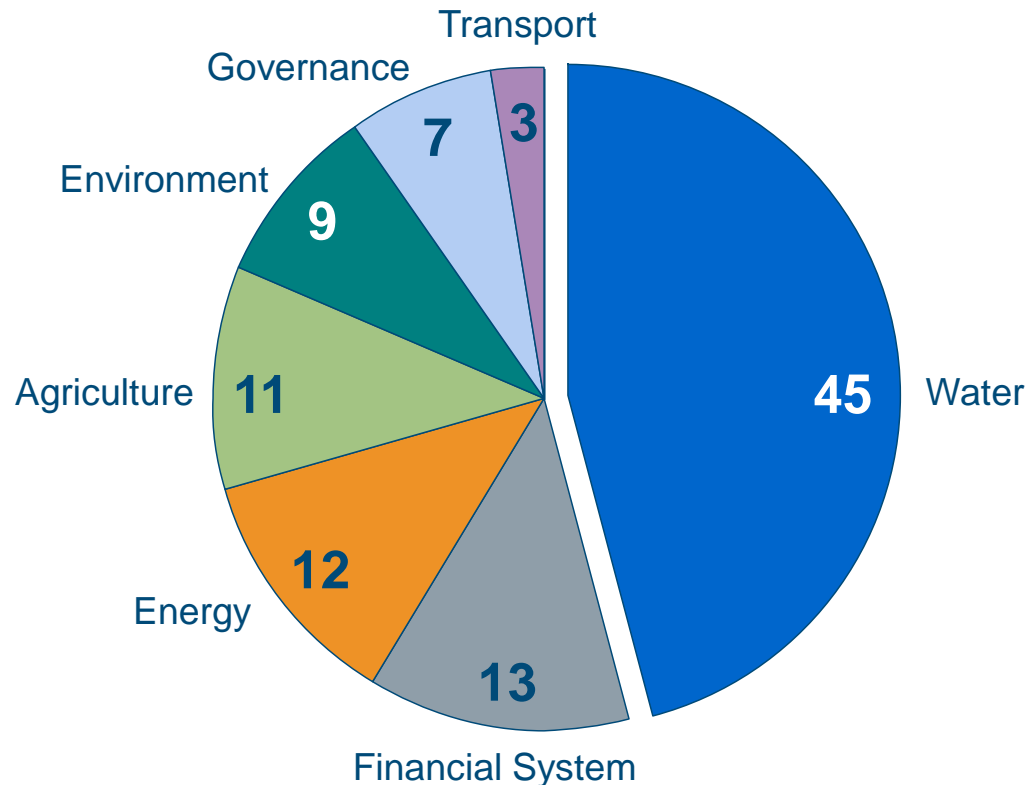
Conclusion 1: Climate adaptation is becoming more and more important for German Development Cooperation

Share of KfW Climate Adaptation Projects 2011 (in %)



Conclusion 2: If mitigation is about energy, adaptation is about water

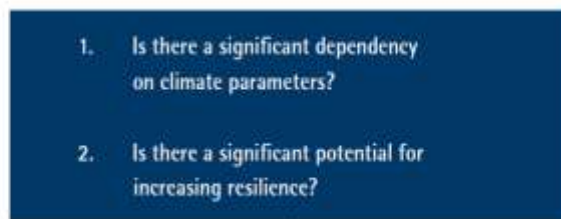
New commitments 2011 with main or secondary objective adaptation to climate change (in % per sector)



Conclusion 3: Mainstreaming is the key to climate proof adaptation projects

- BMZ guideline: All projects are subject to an environmental and climate check (since January 1, 2011).
- KfW Manual: Sector specific climate assessment as standard procedure during appraisal.

Step 1: Screening



- **Step 1:** Is planned project at significant risk of being substantially negative affected by climate change?

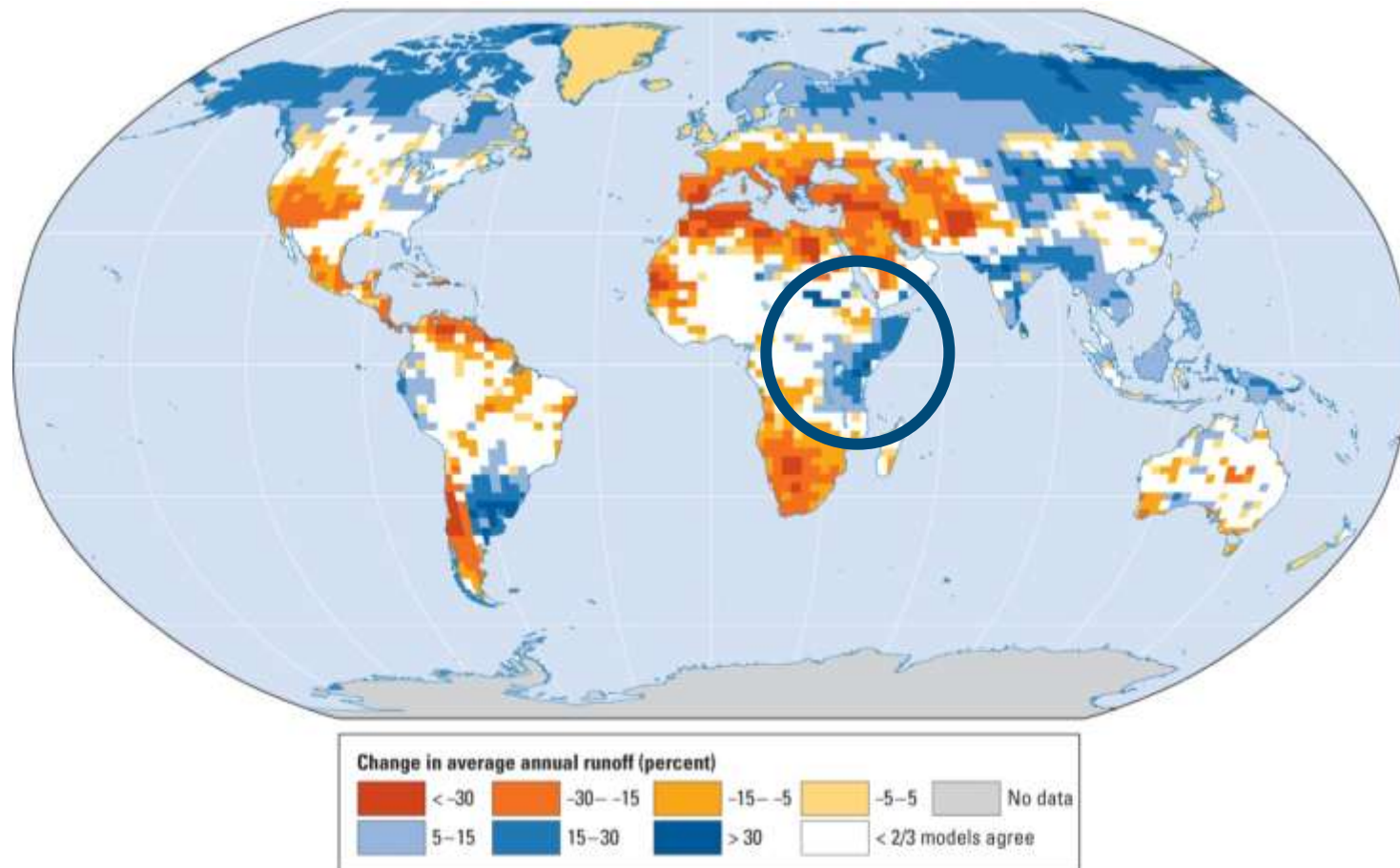
Step 2: In-depth Assessment



- **Step 2:** Compilation and analysis of past, current and projected climate development and its impacts on the project.
- **Outcome:** Identified adaptation activities are integrated into the project → Project is “climate proof”.

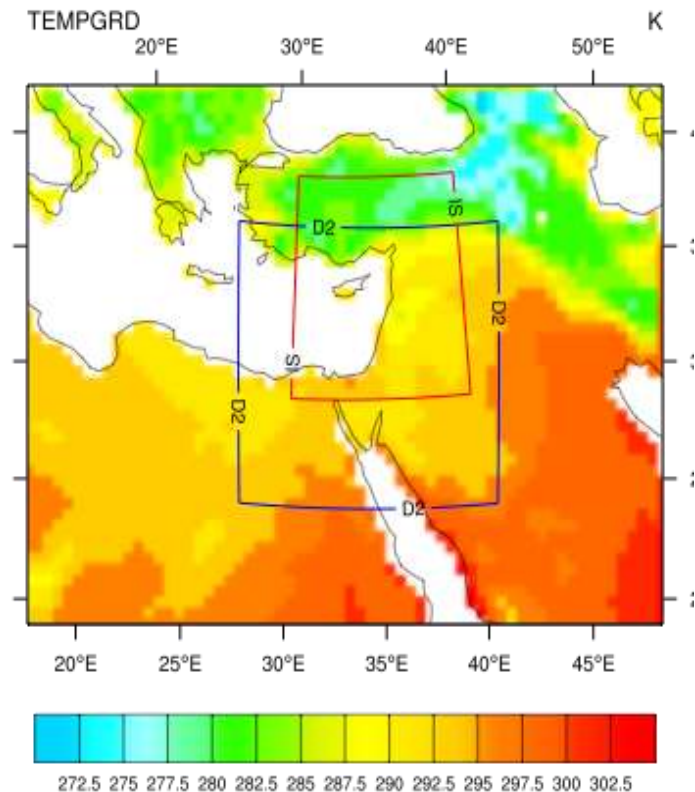
Conclusion 4: Adaptation is crucial, but also financing for current climate variability

Changes in annual runoff (2041-2060 compared with 1900-1970, in %)



Conclusion 5: Cooperation with the scientific community is useful and necessary

- KfW cooperates with the scientific community on adaptation methods and concepts in order to guarantee good quality project preparation and implementation:
 - Preparation of **Climate Fact Sheets** for selected countries together with the German Climate Service Center.
 - **Regional climate studies**, e.g. in the Nile Equatorial Lakes Region and for the Fiegh Spring close to Damascus.
 - **Adaptation related scientific network** will be established.



Case Study: Adaptation to climate change in Jordan's water sector

Challenge

- Extreme and increasing **water shortages**
- **Overexploitation** of water resources
- Existing climate projections indicate **increasing drought and more extreme precipitation**
- Lack of **climate monitoring data**



Approach

- **Existing activities** like water loss reduction and reuse of treated wastewater contribute to relieve pressure on water resources
- Improvement of **hydrological and meteorological measurement**, e.g. concerning groundwater levels
- Climate adaptation **options study** and vulnerability assessment



Effects

- Robust climate data contribute to **improve climate change projections**
- Activities are better **targeted at adaptation to climate change**

Case Study Sahel: Cooperation with West African Development Bank (BOAD)

Challenge

- In the Sahel region of West Africa, climate change is **intensifying droughts and heavy rain** events
 - Resource degradation
 - Declining agricultural productivity
 - Destruction of infrastructure



Approach

- **Grants to BOAD** (EUR 10.6 million) to allow **interest subsidies** for loans in the areas of:
 - Agriculture / Natural resources management
 - Drainage & Flood protection
- **Building up capacity** of BOAD in order to fund national climate adaptation projects
- **Science cooperation** & impact monitoring



Effects

- **Reduced vulnerability** of the population through:
 - Adapted resource management
 - Improved food security and nutrition
 - Improvement and protection of infrastructure

Thank You for Your Attention!

