Integrated Water Resources Management in Fergana valley

2001 - 2010

Scaling-up

the Swiss experience

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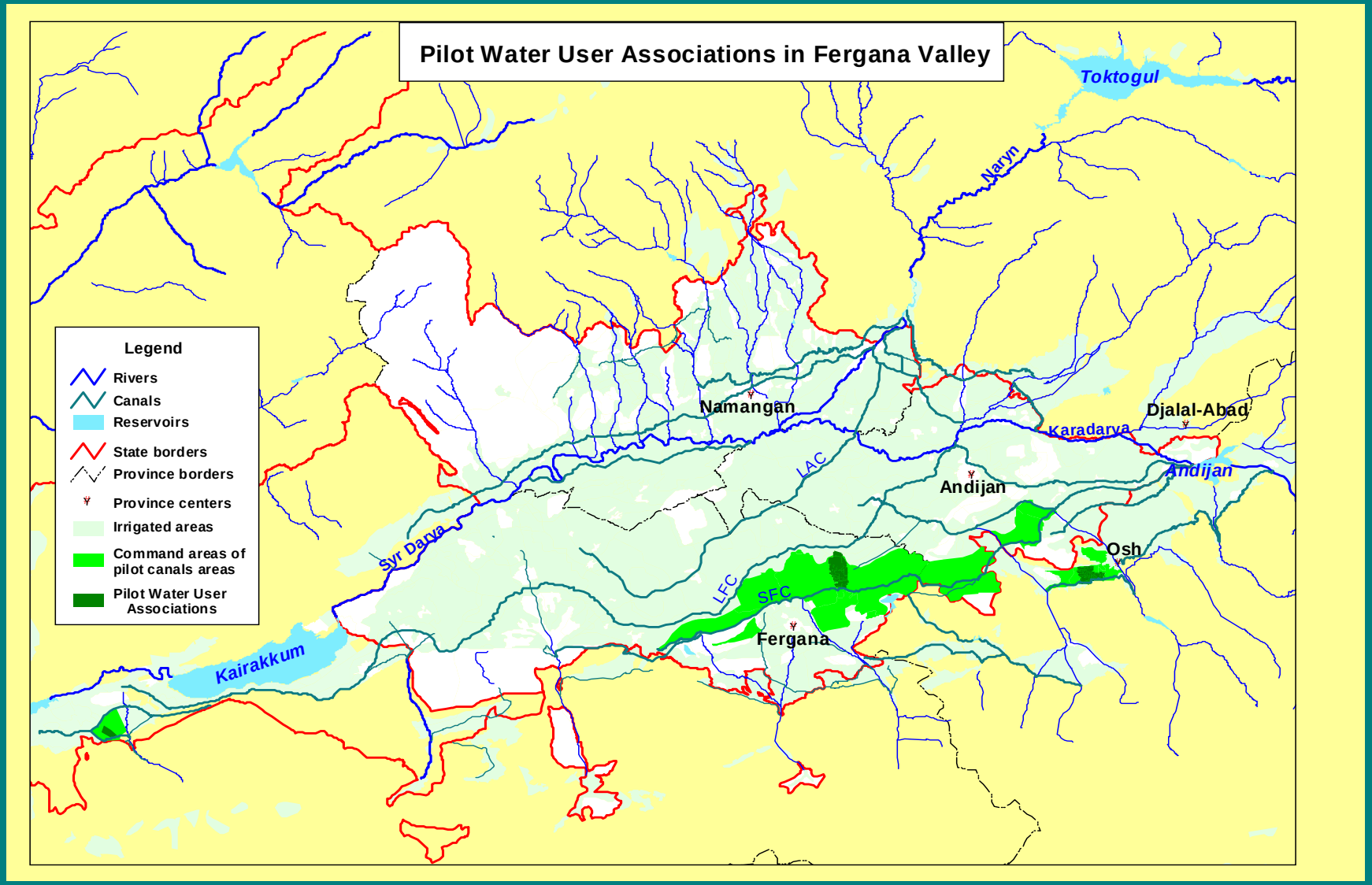
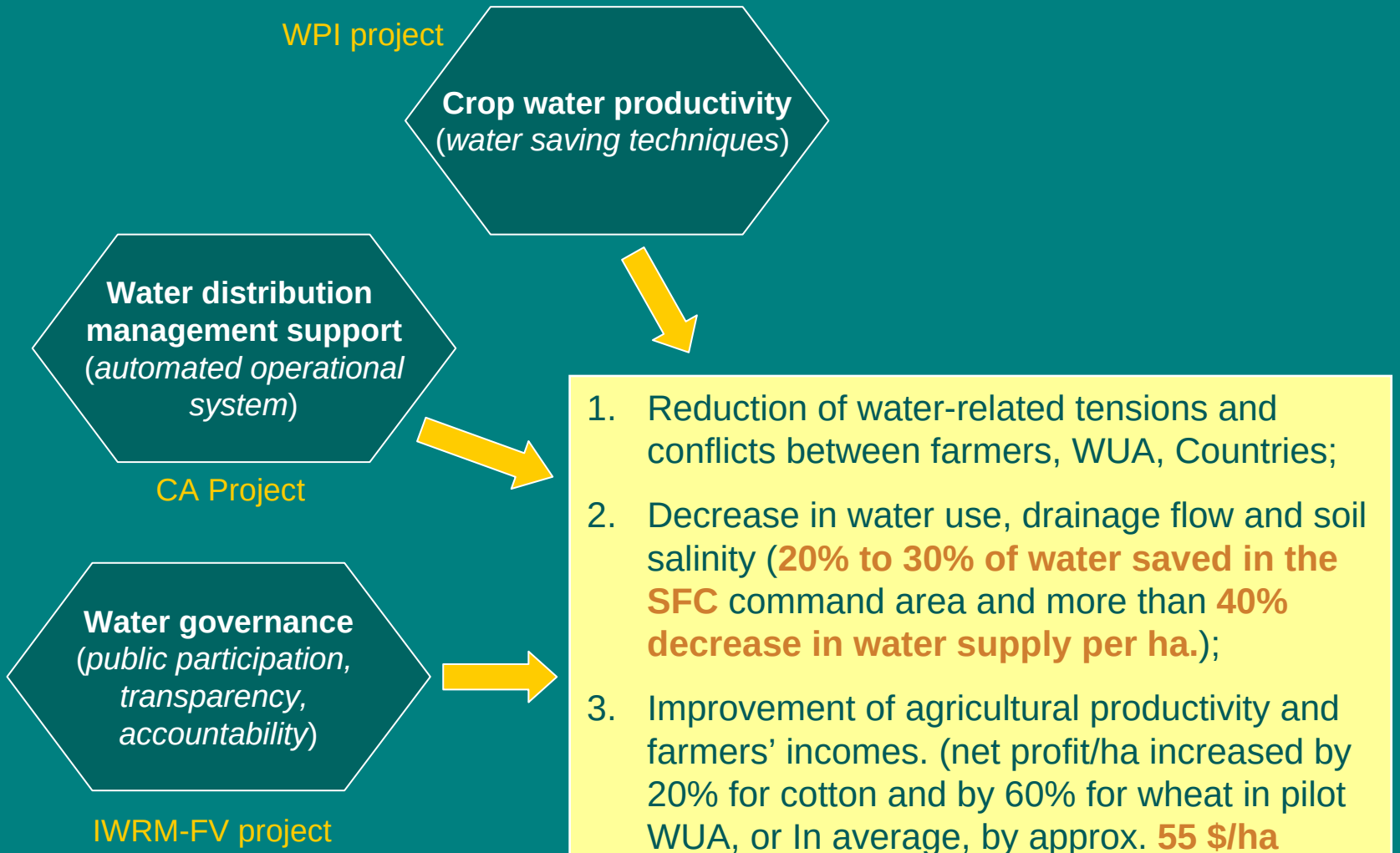
The projects area



Combined results of the programme



Constraints and weaknesses

- The bad shape of the irrigation infrastructure that the Water Management Organisations should put in their balance!
- The legal framework and set of regulations
- The economic and financial viability of the water management / water governance bodies
- The lack of vision, the absence of strategy at national level

Projects cost effectiveness

- **IWRM-FV project** :
  - 9 years of implementation;
  - 8 M. USD; 120'000 hectares;
  - Water governance up to main Canal level in 3 pilot canals : SFC (UZ), KBC (TJ), AAC (KG)
- **Canal Automation project (CAP)** :
  - 6 1/2 years of implementation;
  - 2,3 M. USD;
  - Automation of Ushkurgan headwork and 3 main canals (SFC, KBC, AAC)
- 300 M. m3/year saved per 100'000 ha (SFC)

Project replication

- outsourcing the replication (by Donors) : approx. cost estimation -

Thanks to the FV Swiss experience, the cost of a replication would be :

- IWRM approach up to Canal level + water productivity improvement :
  - **3 M. USD for 100'000 ha ; 4 years**
- Canal automation :
  - **1 M. USD for 100'000 ha ; 2 years**
- Altogether :
  - **4 M. USD / 100'000 ha ; 4 years**

From water to energy saving

- The Swiss approach
if applied Nation wide in Uzbekistan -

- 50% of total irrigated area use pumped water,
- Equivalent to 27 Km3/year
- costing the government 328 Mil USD/year in electricity
- The Swiss IWRM approach results in at least 20% water saving ➔ 5.4 Km3 of water, equivalent to 66 Mil USD saving/year in electricity

IWRM at national level

Partial cost benefit analysis in Uzbekistan (1)

- Total irrigated land in Uzbekistan :
  - 4.2 Mil. ha (or 42 x 100'000 ha)
- According to our rough estimation,

  42 x 4 Mil. = 168 Mil USD would be needed, to implement the Swiss IWRM approach at national level (if fully outsourced !)

  ➔ recoverable in 3 years, considering only the energy saving !
- But the real cost should be much lower due to the expected strong involvement of the State in this scaling-up

Partial cost benefit analysis in Uzbekistan (2)

- This « back of envelope calculation » doesn't take into consideration the increased revenues derived from improved yields at plot level
- According to conservative estimates, IWRM practices have increased farmers revenues by $ 30 per hectares
- Projected over the 4,2 million ha
  ➔ 126 million dollars as additional benefit from the nation-wide application of IWRM practices.

Still missing to implement IWRM at National level

1. A vision and a clear strategy on ways and means to integrate the IWRM approach in the national systems (*ongoing process in TJ*);
2. The reform/update of the legal framework;
3. The reform of the Agriculture sector to increase farmers profitability and the sustainability of IWRM organisations;
4. The capacity, particularly in terms of HR, to scale-up the IWRM approach at national level;

Toward the scaling up of the Swiss IWRM approach :

- Planned SDC actions in 2011 -

- To build up with governments a vision for the scaling-up of the IWRM approach - ;
- To strengthen and develop the human resource in the water sector through the implementation of the Skill Development Project

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