

## The Green Water Approach in the GLOWA Jordan River Project

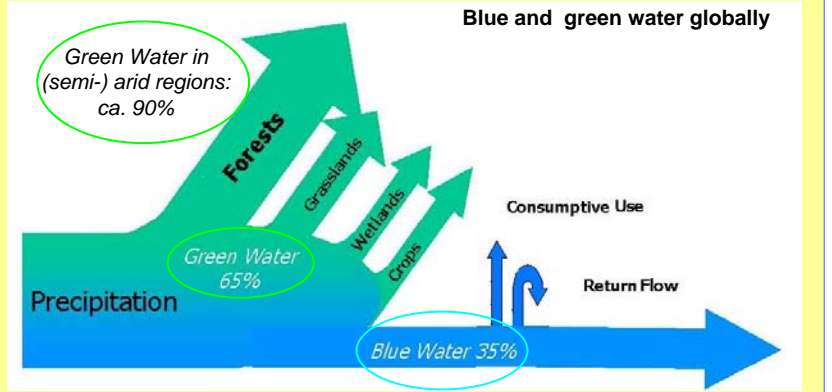
An ideal case for integrating land and water management under global change

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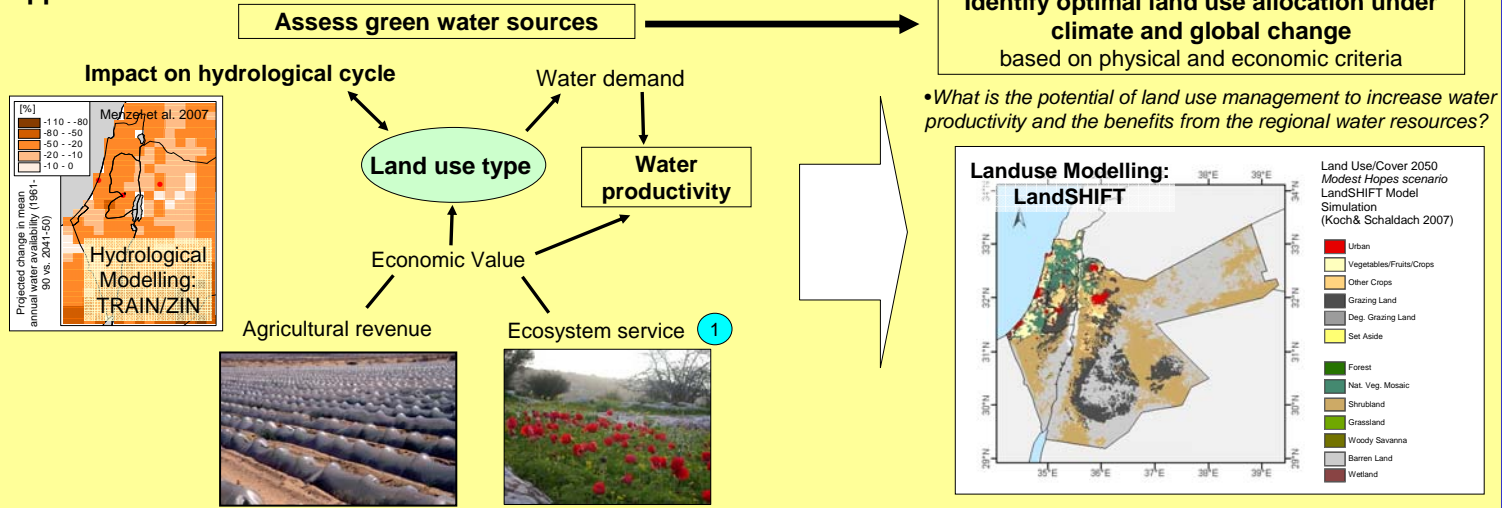
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### What is “green water”?

Green water is water stored in plants and soils. It accounts for roughly three times the amount of blue water in worldwide food production. Surprisingly, green water has been neglected in Integrated Water Resource Management (IWRM). Therefore, the new blue-green water paradigm states that the potential of green water management must be further explored. **Green water can be managed by means of land use management**, i. e. water productivity of a region can be considerably increased by wise land use allocation. GLOWA Jordan River provides an innovative framework for assessing green water sources (i.e. assess land management and reallocation options), overcoming the traditionally fragmented approach to sustainable resource management.



### Approach



### Case Study: Water Productivity of Open Space

#### Goal:

Evaluation of the loss in value of the ecosystem service when climatic conditions change from mesic Mediterranean to drier climates.

#### Method:

Evaluate ecosystem services with a willingness to pay (WTP) approach.

#### Conclusions:

- The urban population of Israel is willing to pay about \$80 million a year to prevent the mesic Mediterranean landscape from changing to a semi arid one; the population assigns a high value to landscape.
- Currently, the applicability of these results to other GLOWA Jordan River regions is tested, particularly because first scientific results show that nature is resistant against climate change.
- Water productivity of open space maybe much higher than of irrigated agriculture.

Fleischer & Sternberg 2006

#### Results:

Yearly loss in value of ecosystem service when open space ecosystems change due to climate change in Israel.

