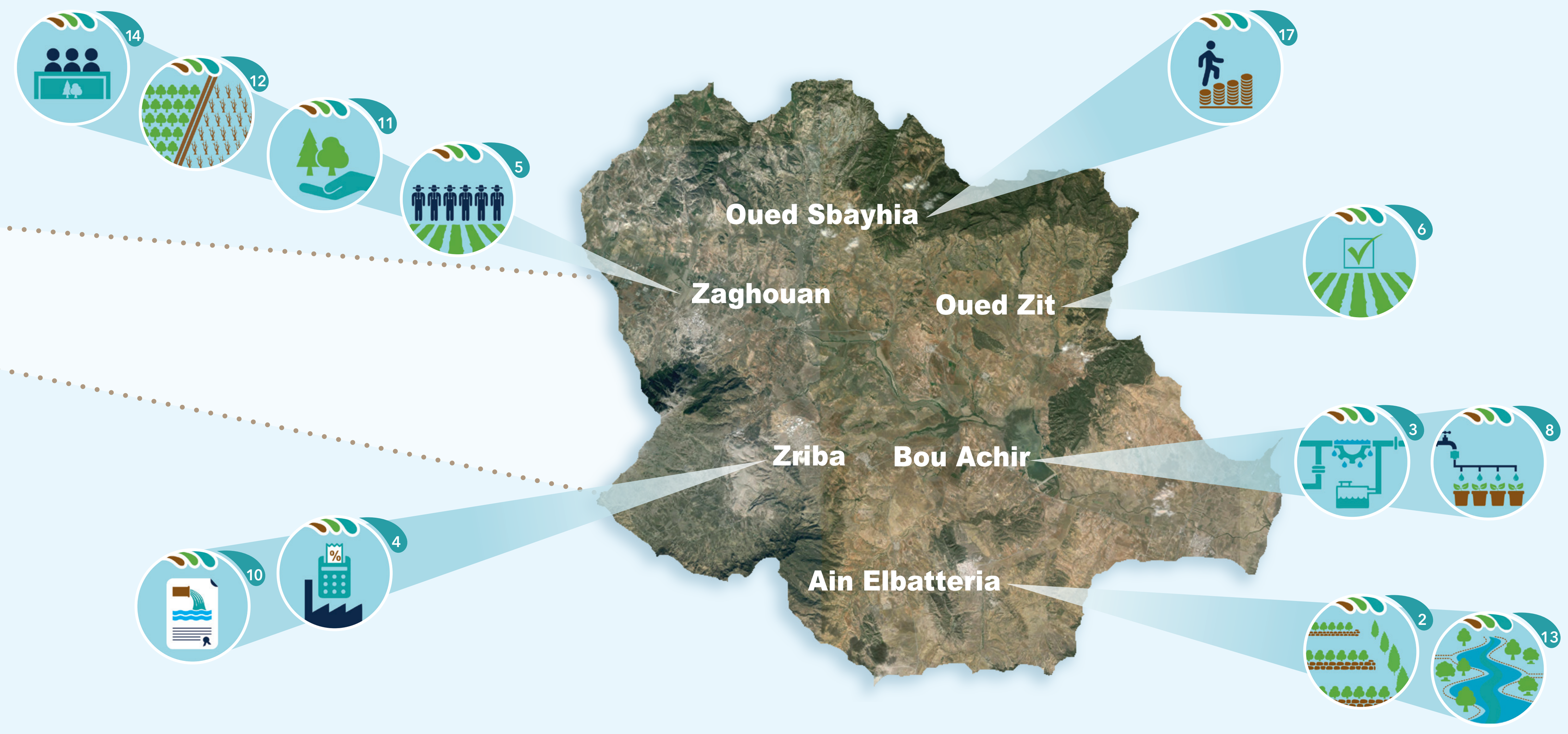
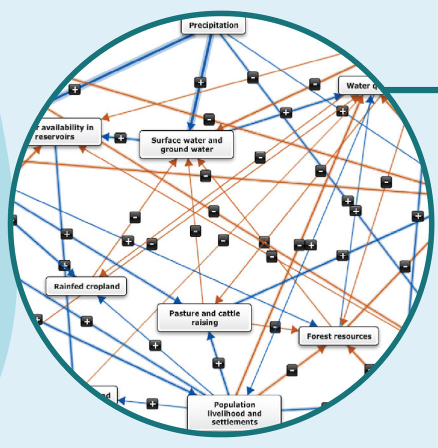
REINFORCING GLOBAL CHANGE RESILIENCE OF LOCAL COMMUNITIES: insights from the adaptation planning in Rmel river basin - Tunisia

BeWater · Society Adapting to Global Change



FUZZY-COGNITIVE MAPPING · FCM

Develop a **NARRATIVE** on the current status and identify **CHALLENGES** of the river basin



Formulate **WATER MANAGEMENT OPTIONS**

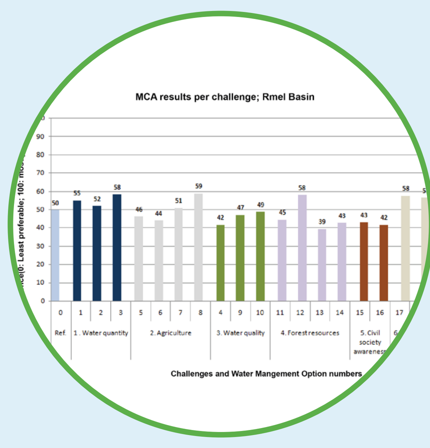
CHALLENGES

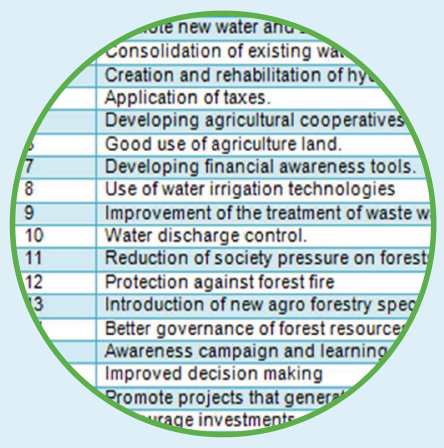
Water quantity	Water quality	Agriculture	Forest and biodiversity management	Awareness of civil society	Human resource and employment
1 Promote new water and soil conservation techniques	4 Application of taxes	5 Developing agricultural cooperatives	11 Reduction of society pressure on forests	15 Awareness campaign and learning	17 Promote projects that generate more income
2 Consolidation of existing water and soil conservation techniques	9 Improvement of the treatment of waste water	6 Good use of agriculture land	12 Protection against forest fire	16 Improved decision making	18 Encourage investments
3 Creation and rehabilitation of hydraulic infrastructure	10 Water discharge control	7 Developing financial awareness tools	13 Introduction of new agro forestry species & enrichment of existing forest		19 Developing skills for young people
		8 Use of water irrigation technologies	14 Better governance of forest resources		

MULTI-CRITERIA ANALYSIS · MCA

Assess the **IMPACTS** of the options through a qualitative and (semi-) quantitative **MODEL**

Evaluate the options based on multiple decision **CRITERIA**

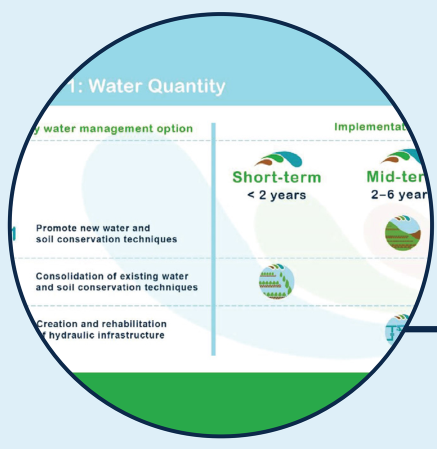




CO-BENEFIT ANALYSIS OF OPTIONS · BUNDLES

Assess **CO-BENEFITS** arising between options in order to group them in **BUNDLES**

Assess the optimal **TIMING** for **IMPLEMENTING** the options



<2 years
short-term

BUNDLE 1 Water quantity
BUNDLE 2 Water quality
BUNDLE 3 Agriculture
BUNDLE 4 Forest and biodiversity management
BUNDLE 5 Awareness of civil society
BUNDLE 6 Human resource and employment

mid-term
2-6 years

Design the **RIVER BASIN ADAPTATION PLAN**

The Rmel Case Study River Basin Team:
S. Jebari, H. Daly, I., Saidi, H. Ezdin, D. Zemal, N. Ben Haha & A. Ben Mohamed
For further information: sihem.jebari@gmail.com

This project has received funding from the European Union's Seventh Programme for research, technological development and demonstration under grant agreement No 612385