

EU Green Week
PARTNER EVENT

Building climate resilience in the Mediterranean region: priorities, needs and solutions for *water scarcity* in Italy



Susanna Murtas

Lisbon, Portugal
4 June 2024

#WaterWiseEU



Increase climate resilience / Work area 7

Information from the Italy/Netherlands presentations

➤ Strategic Round Table on Increasing Resilience to Climate Change, Geneva, 13–14 Nov. 2023

1. Progress made since 2022

a) **Key conclusions** of the SRT

b) **Key recommendations** of the SRT

c) **Strategic Paper on strengthening climate resilience in the drinking water and sanitation sector**

- the document is now at the stage of publishing and will be available in the course of June

a) **Key conclusions**

- The importance of inter-sectoral collaboration
- The need for more evidence
- Understanding trade-offs and co-benefits
- Financing climate actions

b) **Key recommendations**

- Convening stakeholder discussions and promoting intersectoral cooperation
- Setting targets and reporting under the Protocol
- Linking the work under the Protocol to NAPs
- Compendium of adaptation actions
- Additional guidance documents which could be produced under the Protocol

Increase climate resilience / Work area 7

Information from the Italy/Netherlands presentations

2. Plans for future work in this area

- Analysis and recommendations on relation between NDCs, NAPs and WASH considerations, including how to link the national climate documents with targets set under the Protocol - **ongoing, June-November 2024 (to be ready before Climate COP in November 2024)**
- National activity in Montenegro: setting climate sensitive targets and linking to global processes **ongoing, March-July 2024 (representative of Montenegro will present the outcomes here)**
- National activity on setting climate sensitive targets and linking to global processes in the Republic of Moldova (2024-2025) - **similar to Montenegro activity, will start in September 2024**
- World Health Assembly Resolution on Climate Change and Health initiated by Peru, Fiji, the United Kingdom, Kenya and Barbados, the Netherlands (Kingdom of the) to be adopted at the WHA (**ongoing in Geneva this week - WHO can shed some light on this**)
- COP-29 in Baku (November 2024) **this is the climate COP where potentially Protocol could be featured as a framework to address climate resilience of water and sanitation sector. The conclusions of the Lisbon workshop could also feed into this process**

Water scarcity & the challenges for the Italian drinking water sector

Climate Change

- > Extreme weather events
- > Droughts
- > Floods
- > Storms
- > Heatwaves
- > Seawater intrusion

+

Old Infrastructure

- > Water leakages
- > Aged pipes
- > Unsafe networks
- > Lack of EWS
(Early Warning Systems)

=

Water Scarcity

Increasing concerns to drinking-water supply:

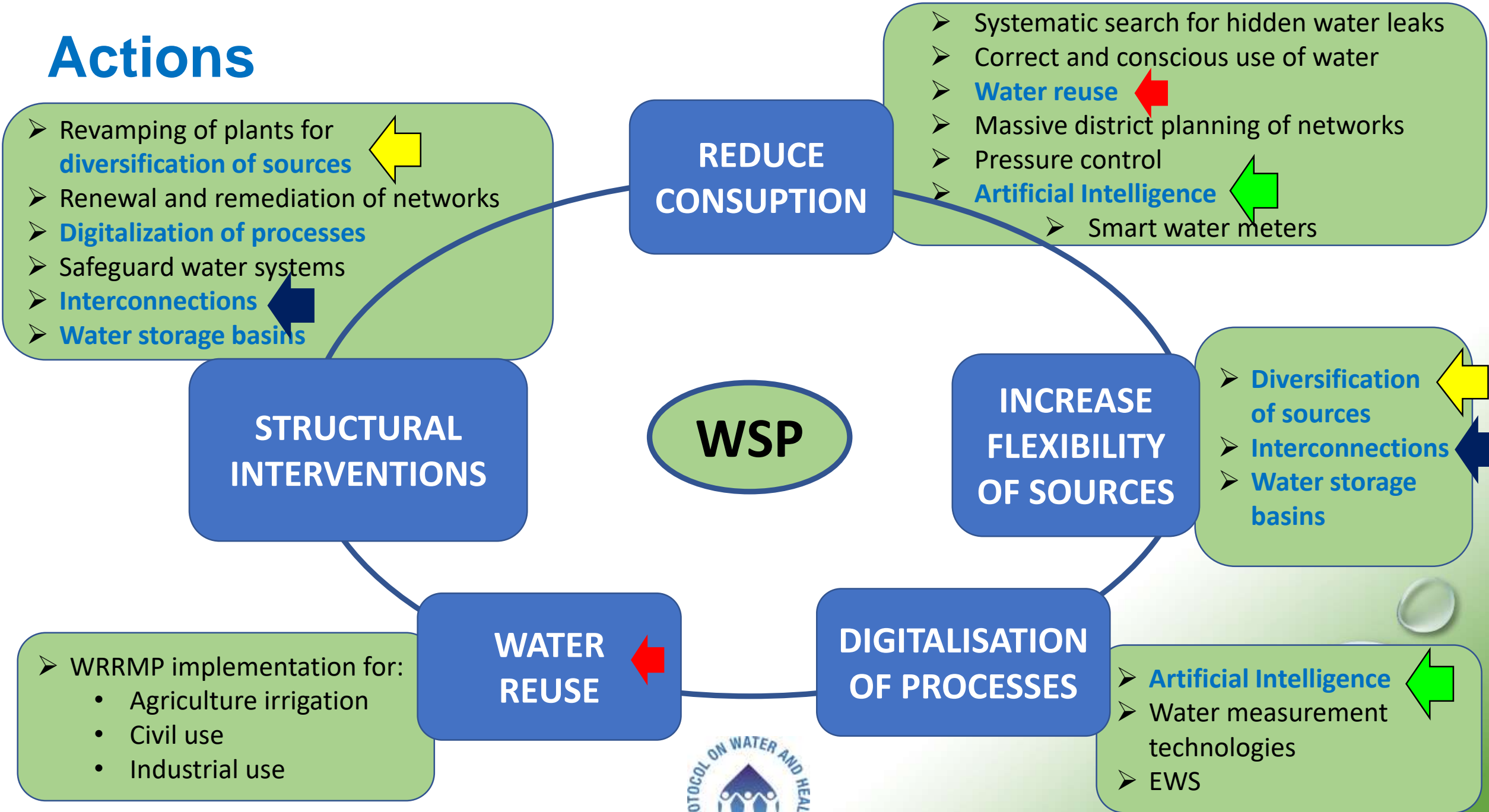
QUALITY
&
QUANTITY

>

Challenges

- 1. RESILIENCE**
of water systems
(implement WSP);
- 2. EFFICIENCY**
by merging small
water utilities;
- 3. SUSTAINABILITY**
environmental and
economic.

Actions



Priorities, needs and solutions in the Italian drinking water sector

STRENGTHS

- DLgs 18/2023 > implem. of WSP by 2029
- EU Regulation 2020/741 > implem. WRRMP
- National Guidelines > implem. of WSP
- Online course on implem. of WSP
- High-level technical auditors for the **mandatory** approval of WSPs – ISS (CeNSia)
- AnTeA – National digital platform on water
- **Incentives and penalties - (ARERA)**
- **WSP approval requires a risk analysis of climate change-related phenomena**

WEAKNESSES

- Old Infrastructure
- **Lack / slow rate of WSP implementation**
- **Lack of risk analysis on climate change**
- A huge fragmentation of small WUs;
- Lack of skilled staff, especially in small WUs;
- **Lack of financial resources;**
- Lack of site specific seasonal forecast;
- Lack of distribution networks for reuse
- **Lack of Emergency Plans**

SWOT ANALYSIS

OPPORTUNITIES

- Access to EU funds (e.g. PNRR);
- **Access to national and regional funds;**
- Protocol on Water and Health;
- Hightened community awareness

THREATS

- Worsening climate crisis;
- Biological & Chemical pollution;
- Financial crisis;
- **Waterborne disease**

Needs

1. FUNDS TO IMPLEMENT WSPs AND WRRMPs AND THEIR RESPECTIVE IMPROVEMENT PLANS
2. EXPERTS TO IMPLEMENT WSPs AND WRRMPs
3. LAWS – HARMONIZE, FILL LEGAL GAPS
4. PUBLICATION OF CASE STUDIES ON THE IMPLEMENTATION OF WSPs AND WRRMPs



Solutions

1. SLOW WSP IMPLEMENTATION + LACK OF RISK ANALYSIS ON CLIMATE CHANGE

- ARERA (Regulatory Authority for Energy Networks and Environment) has introduced an economic mechanism of incentives and penalties for water utilities;
- ISS (CeNSiA - WSP Approval Body) requires the risk analysis of climate change related phenomena for WSP approval

2. INTERNATIONAL COOPERATION AND THE SHARING OF BEST PRACTICES



Priorities

1. REINFORCE PARTNERSHIPS

between sectors (e.g. health, environment) at the state and regional level

(e.g. Ministry of Economy and Finance, Ministry of Health, Ministry of the Environment, Regions, Autonomous Provinces, Department of Civil Protection, Federation of Utilities, Research Institutes);

- **To avoid threats and emergencies;**
- **For an efficient allocation of funds.**

2. SITE-SPECIFIC CLIMATE PROJECTIONS

3. MERGE SMALL WATER UTILITIES

4. EMERGENCY PLANS FOR EXTREME WEATHER EVENTS

(e.g. intrusion of storm water in domestic distribution systems in case of floods **AGAINST WATERBORNE DISEASE**)



**Thank you for your attention
... and for your suggestions on
possible solutions!**

Susanna Murtas



**CENTRO NAZIONALE
SICUREZZA DELLE ACQUE**



WATER SCARCITY IN EUROPE

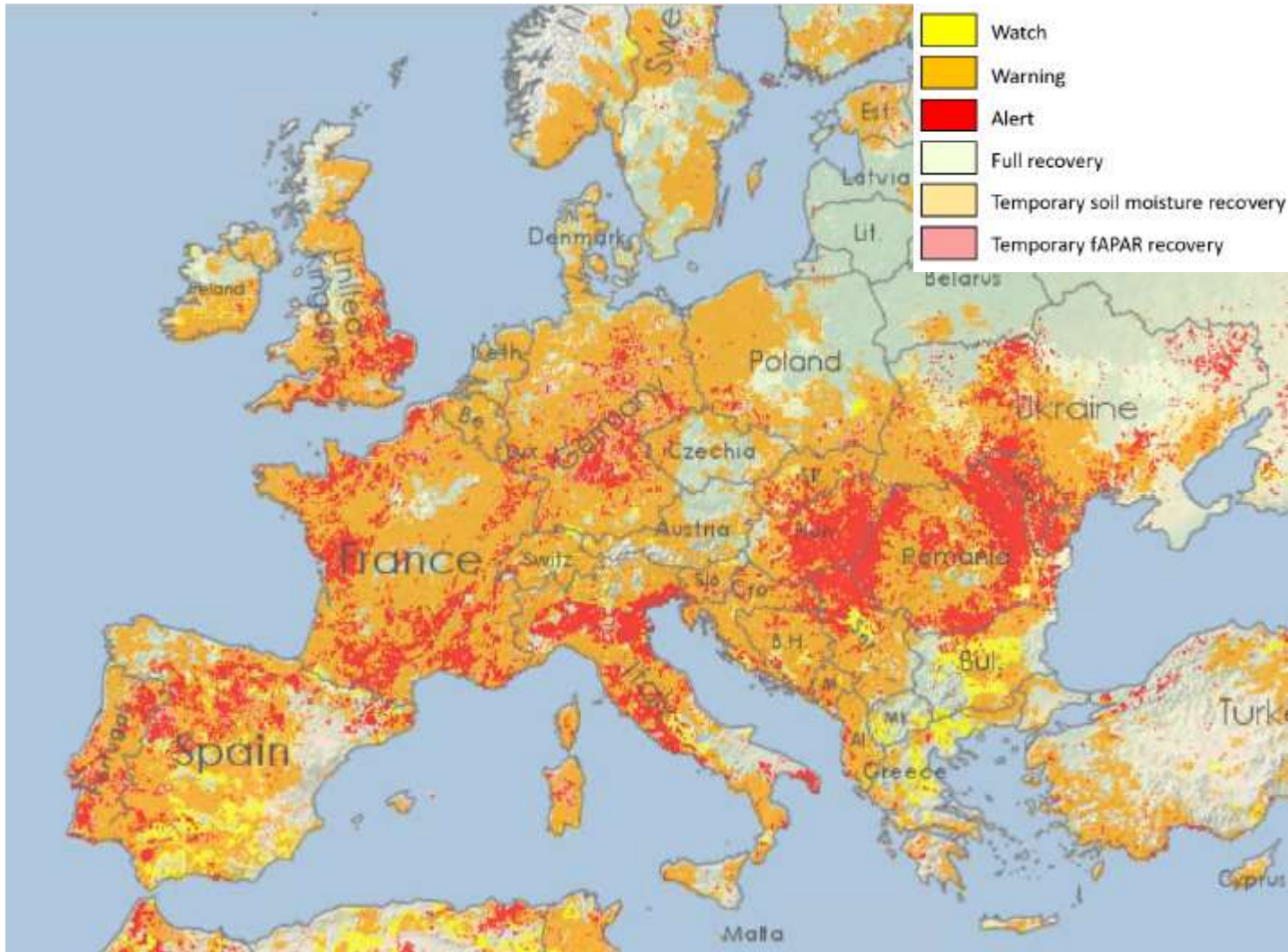


Figure: The Combined Drought Indicator (CDI), based on a combination of indicators of precipitation, soil moisture and vegetation conditions, beginning of August 2022.

Global Drought Observatory:
<https://edo.jrc.ec.europa.eu/gdo>

The **Combined Drought Indicator (CDI)** of the European Drought Observatory (EDO) is used to identify areas that may be affected by agricultural drought. The CDI is derived by combining the Standardized Precipitation Index (SPI), the Soil Moisture Index Anomaly (SMA), and the fAPAR anomaly.

Areas are classified according to three primary drought classes:

1. **Watch:** indicating that precipitation is less than normal;
2. **Warning:** indicating that also soil moisture is in deficit; and
3. **Alert:** indicating that also vegetation shows signs of stress

“Full Recovery”, “Temporary Soil Moisture Recovery” and “Temporary fAPAR Recovery” – identify the stages of drought recovery processes in terms of its impacts on soil moisture and vegetation.



ACQUA

LE 8 PROPOSTE DI UTILITALIA PER L'ADATTAMENTO INFRASTRUTTURALE AL CAMBIAMENTO CLIMATICO

PROMUOVERE UN USO EFFICIENTE DELLA RISORSA IDRICA

Incentivare ulteriormente
la riduzione delle perdite
e i comportamenti virtuosi

1



GLI INVESTIMENTI SONO IN
AUMENTO DEL 22% NEGLI
ULTIMI 5 ANNI CON UN
VALORE PRO CAPITE DI 49
EURO L'ANNO, MA SIAMO
ANCORA MOLTO LONTANI
DALLA MEDIA EUROPEA CHE
È DI 100 EURO

PER PREVEDERE LE
EMERGENZE FUTURE È
NECESSARIO GARANTIRE
UNA PLURARITÀ DI FONTI:
INTERCONNESSIONI
DELLE RETI, GRANDI
INVASI A USO PLURIMO
E PICCOLI INVASI A USO
IRRIGUO



2

REALIZZARE LE OPERE INFRASTRUTTURALI STRATEGICHE

Creazione di invasi
e interconnessioni delle reti per
favorire l'adattamento

FAVORIRE IL RIUSO EFFICIENTE

Riutilizzo delle acque depurate a fini agricoli o industriali che sfruttiamo solo al 5 %

3

5%

SI TRATTA DI UN POTENZIALE ENORME - 9 MILIARDI DI METRI CUBI ALL'ANNO - CHE IN ITALIA VIENE SFRUTTATO SOLO PER IL 5% (475 MILIONI DI METRI CUBI).

LO SCORSO ANNO IL CUNEO SALINO È RISALITO DI DECINE DI KM NEL PO E NELL'ADIGE. L'IMPINGUAMENTO DELLA FALDA CONTRASTA L'IMMISSIONE DI ACQUA SALATA DAL MARE.



4

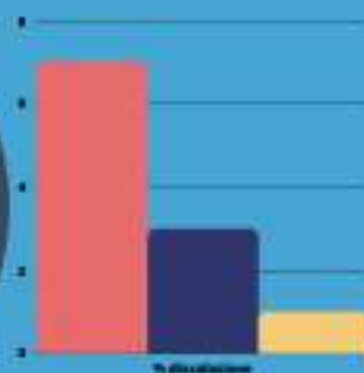
CONTRASTARE IL CUNEO SALINO

Aumento dei volumi delle falde per contrastarne l'avanzata

DIVERSIFICARE LA STRATEGIA DI APPROVVIGIONAMENTO

Produzione complementare di acqua potabile anche attraverso la dissalazione

5



IN ITALIA LE ACQUE MARINE O SALMASTRE RAPPRESENTANO SOLO LO 0,1 % DELLE FONTI DI APPROVVIGIONAMENTO IDRICO, CONTRO IL 7% DELLA SPAGNA E IL 3% DELLA GRECIA.

IL RUOLO DEI 7 DISTRETTI IDROGRAFICI È FONDAMENTALE NELLA GOVERNANCE INTERREGIONALE, SOPRATTUTTO NELLE FASI PARTICOLARMENTE SICCILOSE.



6

RAFFORZARE LA GOVERNANCE DEI DISTRETTI IDROGRAFICI

Potenziamento del ruolo di pianificazione e governance dei distretti

SOSTENERE LA PRESENZA DI GESTIONI INDUSTRIALI

Consolidamento industriale e superamento delle gestioni in economia

7



A FRONTE DI UNA MEDIA ANNUA DI INVESTIMENTI DI 49 EURO PER ABITANTE, NELLE GESTIONI COMUNALI IN ECONOMIA GLI INVESTIMENTI CROLLANO A 8 EURO.

IN ITALIA LE PROCEDURE AUTORIZZATIVE OCCUPANO OLTRE IL 40% DEL TEMPO NECESSARIO PER LA REALIZZAZIONE DI UN'OPERA INFRASTRUTTURALE.



8

SEMPLIFICARE LA REALIZZAZIONE DEGLI INVESTIMENTI

Estensione delle semplificazioni ai progetti connessi ai servizi pubblici locali a rete