



Sixth framework programme
of the European Commission

Stakeholder involvement within the EUWI research projects on river basin twinning



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DG Research

RIVERTWIN

A Regional Model
for
Integrated Water
Management
in
Twinned River Basins



DG Research





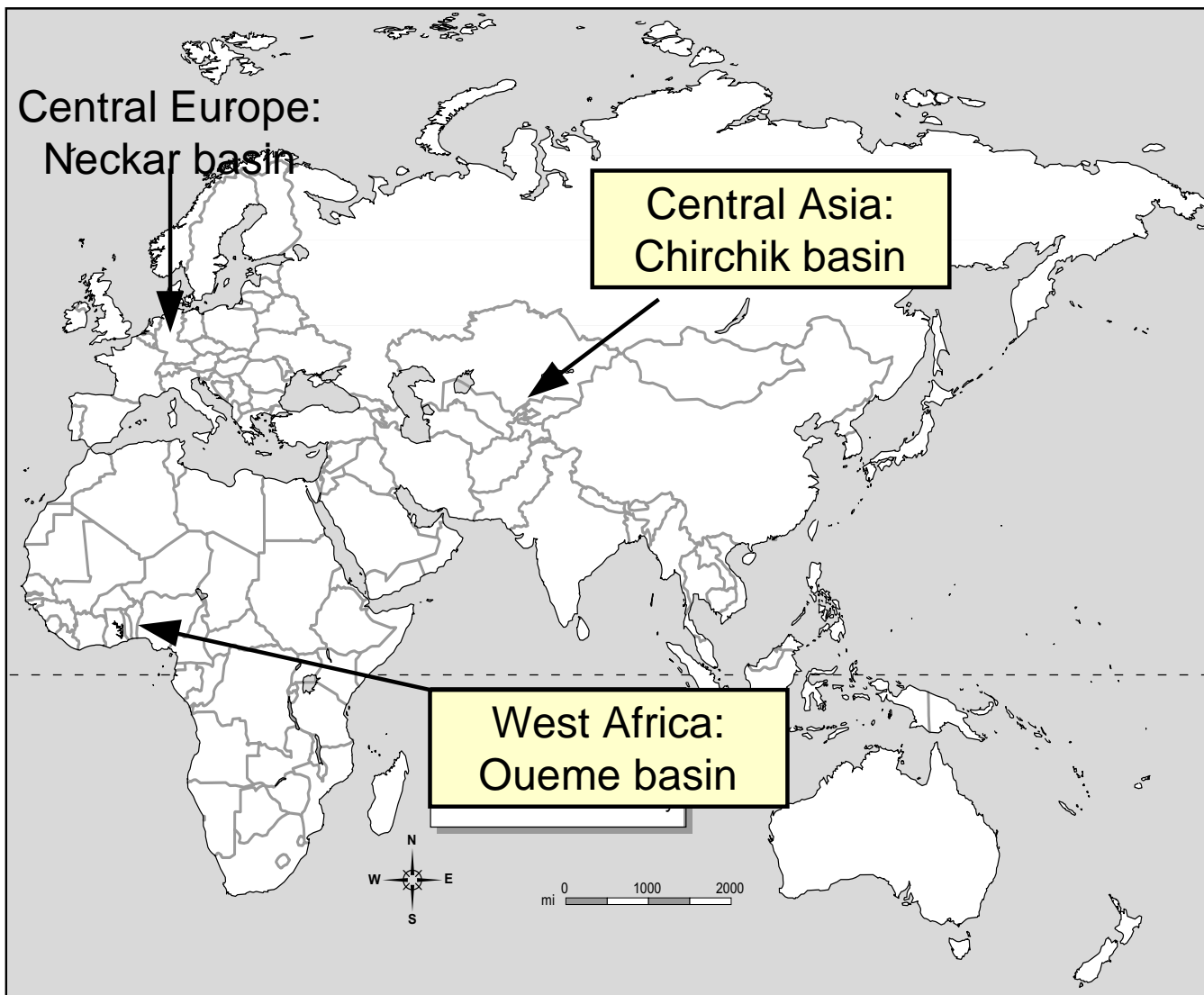
RIVERTWIN

Scientific and Technological Objectives

- **Building of scenarios** of integrated water resources management together with stakeholders to support the establishment of River Basin Management Plans (RBMP)
- **Developing an integrated regional model** for scenario analysis and evaluation under contrasting ecological and socioeconomic conditions in three river basins



Three selected river basins



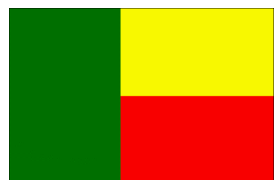
Cooperating stakeholders

◆ Neckar:



- >Ministry of Environment
- >Environmental Protection Agency
- >Regional Commission Stuttgart
- >Water supply companies and associations (LWV, BWV)

◆ Oueme:

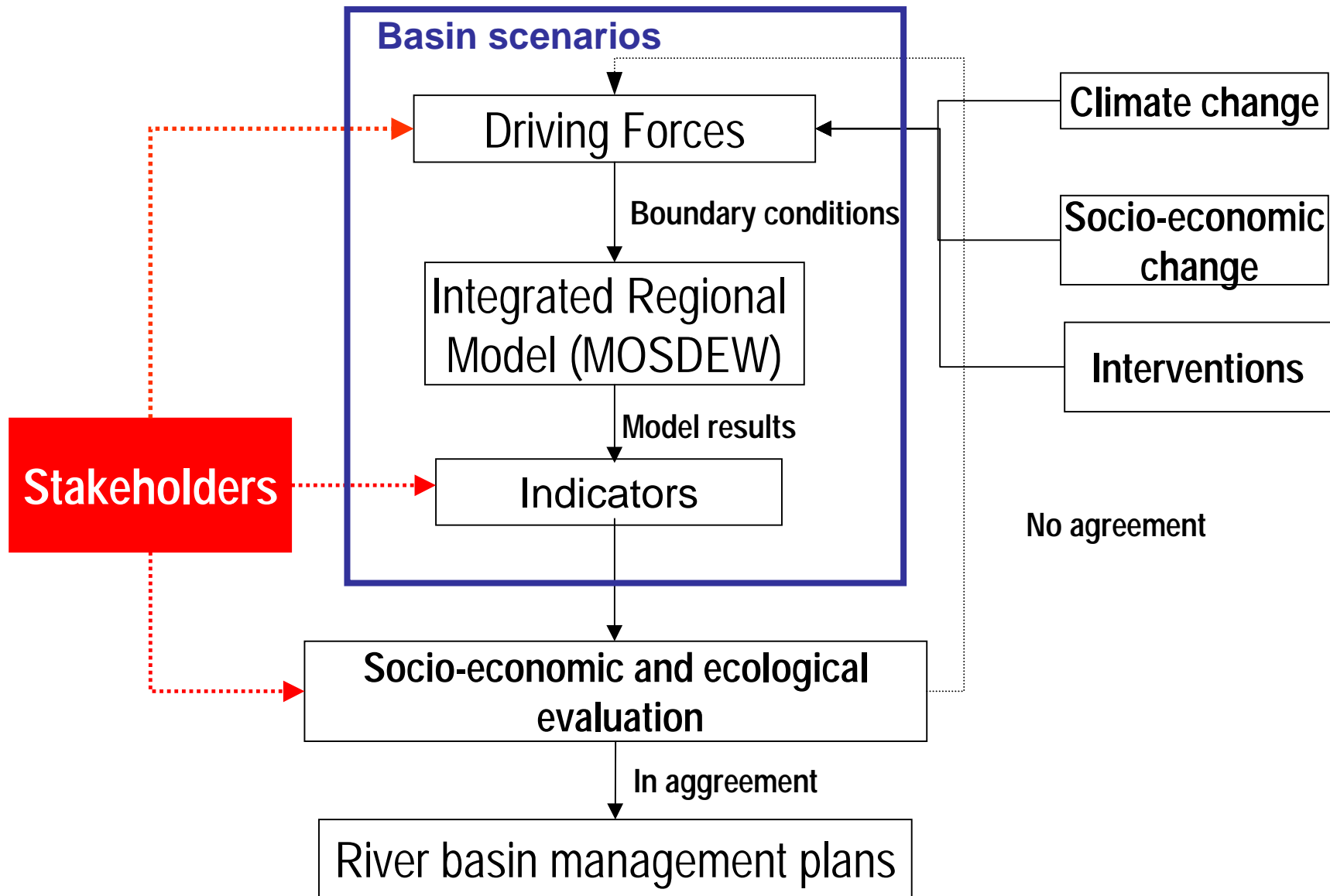


- >Direction Generale de l'Hydraulique
- >Institut National des Recherches Agronomiques
- >Université Abomey-Calavi
- >SONEB
- >Global water partnership programme WATAC
- >Research programme IMPETUS

◆ Chirchik:



- >BVO Syrdarya
- >Interstate Commission for Water Coordination
- >Global water partnership programme CACENA





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**Scenario development as
stakeholder forum to discuss
IWRM issues in the Oueme
basin**



Present situation of water management

- No Integrated water resources management
- Sectorial water management
- No coordination

Responsibilities of Water Resources and rural water supply:

- Ministry of Mining, Energy and Water Resources

Responsibilities of Water Supply for urban and industrial demand:

- Societe Nationale de l'Eau

Responsibility of Water Supply for Lifestock, Fishery and Irrigation

- Ministry of Agriculture, Lifestock and Fishery



Future Water Management Structure according to the Water Law 2006

- National Water Council
- Interministry Commission for Water
- National Water Agency (in preparation by the State Hydrological Service)
- Basin Committees
- Basin Agencies



RIVERTWIN Achievements

- 1. Establishment of an inter-institutional working group by local partners assisted by experts from Germany (UHO) and Sweden (SEI)**



2. Results:

- **Ten internal scenario group meetings since March 2004**
- **October 2005: Public workshop with the Minister for Mining, Energy and Water Resources, the Minister of Higher Education and the State Secretary of Agriculture accompanied by large media outreach (Television, radio broadcasting, press releases)**
- **May 2006: Final definition of driving forces for scenario runs**

Outlook:

- **November 2006: Public presentation and discussion of scenario modelling results (state and local authorities)**



Factors encouraging stakeholders participation:

- **Participation in the project planning (proposal stage) -> Research becomes demand oriented**
- **Own funding for stakeholders**
- **Research supports ongoing political process (new water legislation and water institutions)**

Problems with stakeholder involvement in Benin:

- **NO resources at all (participation in meetings, field trips etc.)**
- **Research supports ongoing political process (new water legislation and water institutions)**
- **Competition between institutions (ministries) -> Coordination by „neutral“ academic institution**



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Human Capacity Building in Benin



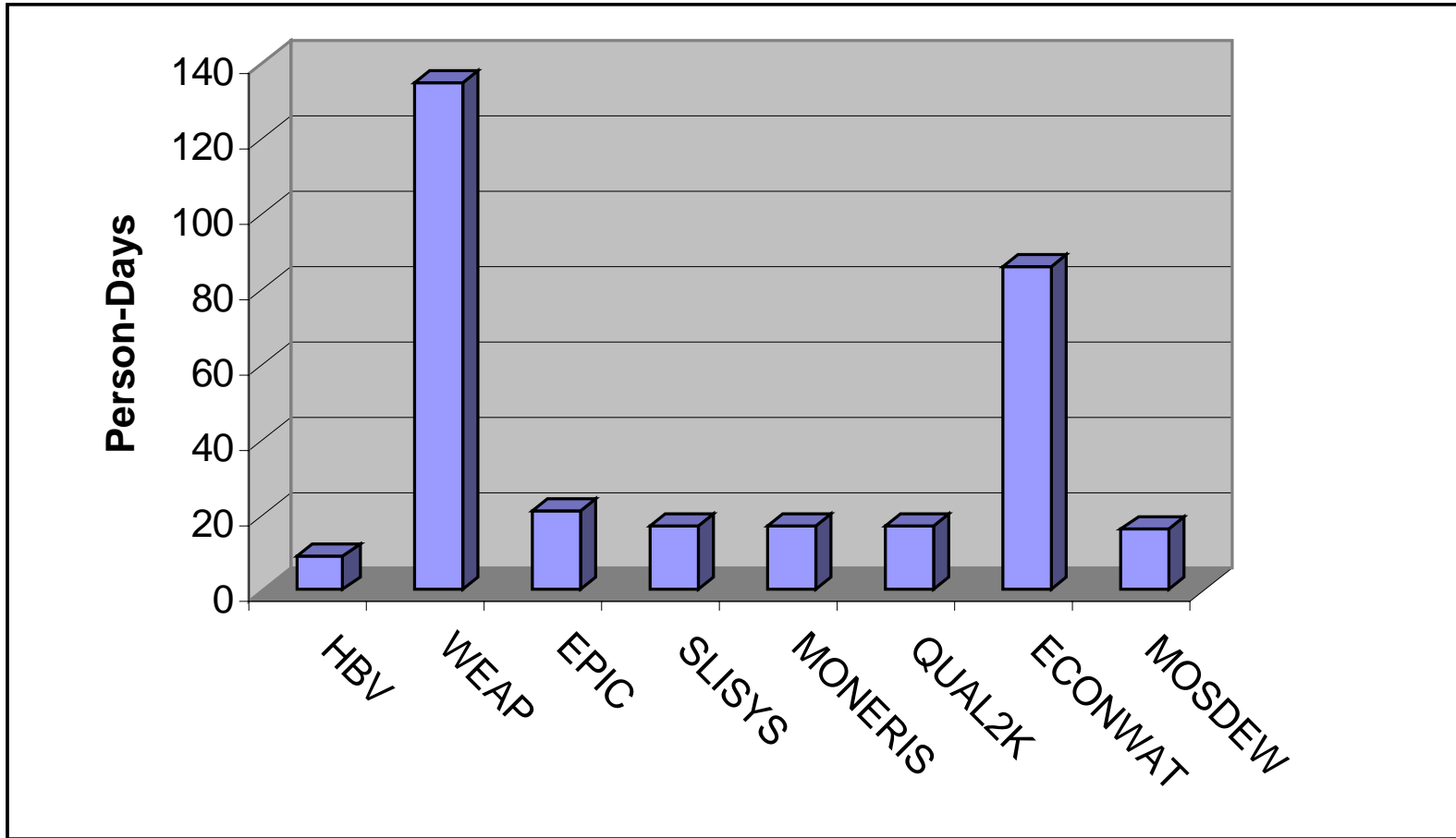
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Training in IWRM approaches and scenario development

- **1 one week training for Beninese scenario group leader in Sweden**
- **Two three-days training sessions with 15-20 participants**

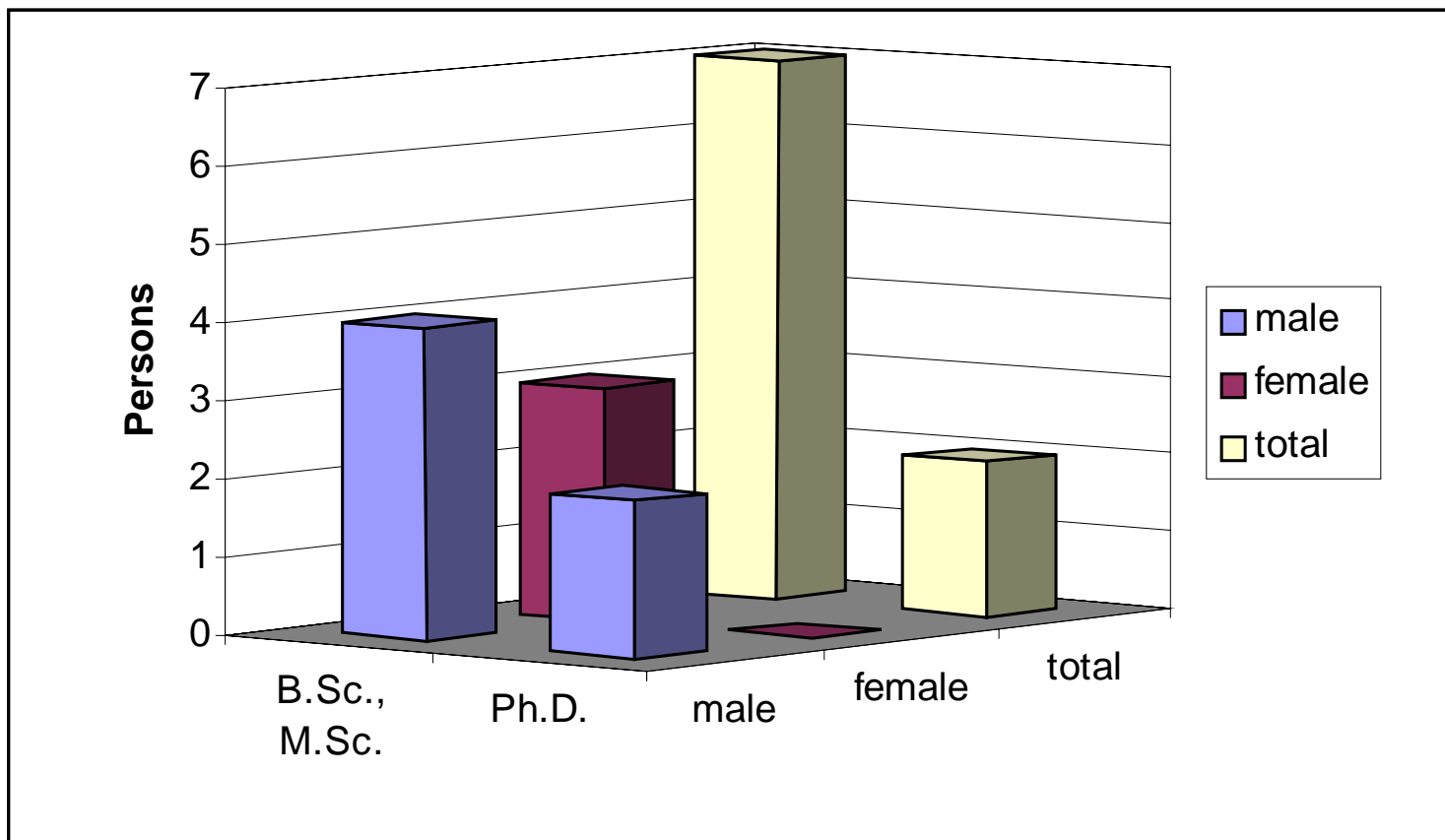


RIVERTWIN Training in model application in Benin Republic



RIVERTWIN-Benin

Bachelor, Master and Ph.D. students





Promoting Twinning of River Basins for Developing Integrated Water Resources Management Practices



Promoting Twinning of River Basins for Developing Integrated Water Resources Management Practices

Objective :

Developing Integrated Water Resources Management (IWRM) good practices, by focusing on Human Resources Development in Basin Organisations



ONE EXAMPLE : CURRENT TWINNING BETWEEN
Seine- Normandie Water Agency (**France**)
Algérois Hodna Soummam Basin Agency (**Algeria**)

Main objective of the twinning :

Application of user-pays principle for main water withdrawals by industry :

- legal, technical and administrative methods;
- elaboration of communication plan.



Seine- Normandie Water Agency (**France**)
Algérois Hodna Soummam Basin Agency (**Algeria**)

Activity 1

Topic: Declaration of water withdrawal volumes

Method : Working group, presentation of existing documents,
elaboration of new legal documents (template for invoice)

Results:

- Declaration form for water withdrawal volumes



Seine- Normandie Water Agency (**France**)
Algérois Hodna Soummam Basin Agency (**Algeria**)

Activity 2

Topic: Communication plan

Method: working group around “communication towards water users, stakeholders and the public”

Results:

- Conception of a communication plan and a leaflet
- Elaboration of a film for communicating within Algerian river basin



Seine- Normandie Water Agency (**France**)
Algérois Hodna Soummam Basin Agency (**Algeria**)

Activity 3

Topic: Legal aspects: decree for application of user-pays principle

Method: Working group for writing the draft

Results: New decree approved by Algerian Ministry of Water Resources



Seine- Normandie Water Agency (**France**)
Algérois Hodna Soummam Basin Agency (**Algeria**)

Balance for Twinbasin Project

Our interlocutors and partners, at all levels, expressed clearly their satisfaction regarding the multidisciplinary methodology, participatory approach and overall outcomes of the exchange.

The result were gained by a multidisciplinary team (legal, technical and communication experts).



Seine- Normandie Water Agency (**France**)
Algérois Hodna Soummam Basin Agency (**Algeria**)

Summary

A transfer of experience and know-how was very useful and time-sparing for the application of user-pays principle in Algeria. The benefits are being shared by all 5 Algerian River basin Agencies.

All reports are available on Twinbasin website :
www.twinbasin.org



Seine- Normandie Water Agency (**France**)
Algérois Hodna Soummam Basin Agency (**Algeria**)

Due to the success of this First phase of twinning,
both Basin Agencies proposed a follow up to their exchanges.
This twinning is thus beneficiating from an **extension of
TWINBASIN support for 3 new missions.**

Topic to be tackled with:

GIS

Water quality

Public participation, stakeholders participation



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Sixth Framework
Programme
(2002-2006)

Flood Water Recharge of Alluvial Aquifers in Dryland Environments

www.wadeproject.info



Assessing sustainability of water resources in ephemeral river basins by quantifying long-term floodwater recharge into alluvial aquifers





WADE Approach

State-of-the-art monitoring of floodwater recharge

+

Analysis of palaeoflood sediments to determine historical flood discharge & frequency

+

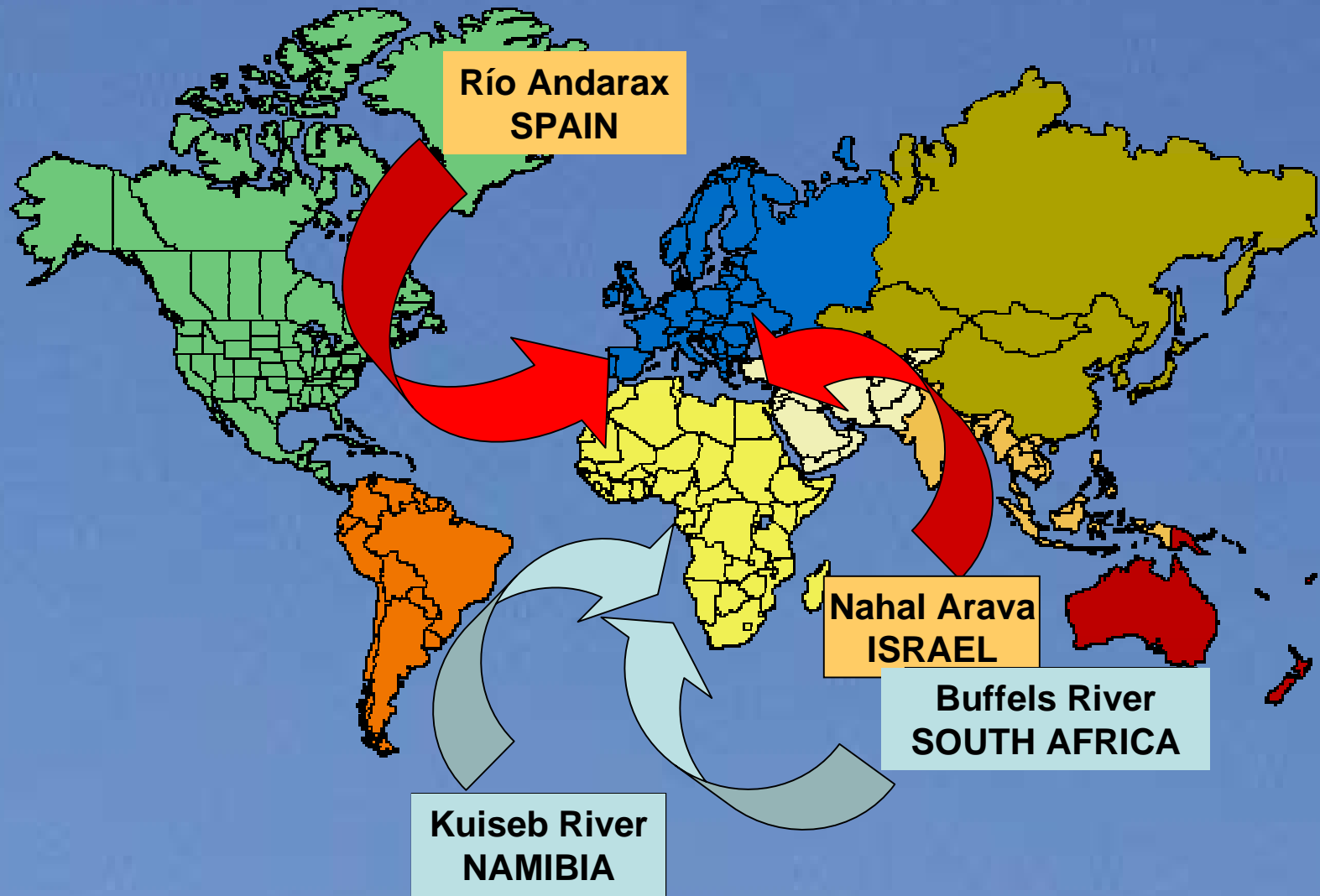
Groundwater dating & modelling

LONG-TERM QUANTIFICATION OF RECHARGE VOLUMES & SUSTAINABILITY OF AQUIFERS

Integrated Water Resource Management



Twinning River Basins...



**Río Andarax
SPAIN**

**Nahal Arava
ISRAEL**

**Buffels River
SOUTH AFRICA**

**Kuiseb River
NAMIBIA**



What WADE can provide:

- Quantify states and fluxes of water system
- Assess impacts of catchment modification on water resource
- Consider water quantity (sources, seasonality etc) and quality (physical, chemical etc.)
- Forecast availability and water sustainability
- Assess risks associated with flooding, drought, climate change
- Disseminate technical information in a format useful to managers
- Improve management of the region's water resources



Interactions between WADE and local partners include:

- Municipal involvement in report backs and scientific findings
- Municipal technicians gain insight into scientific methodology
- Local NGO facilitates knowledge transfer from WADE scientists to Municipal planning process
- Community para-hydrologists work alongside WADE researchers and receive training in data collection, data processing and presentation





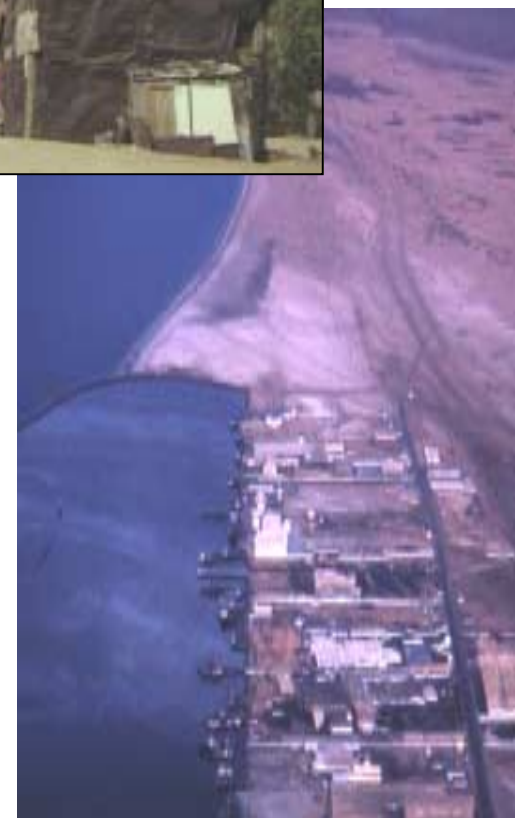
End-user activities include:

- Municipal participation in WADE meetings
- NGO socioeconomic research
- NGO facilitation of knowledge transfer
- NGO newsletter of project progress
- Para-hydrologists undertake flood monitoring
- Para hydrologists facilitate meetings
- WADE project creates reports, pamphlet , cartoons and posters



Problems with IWRM:

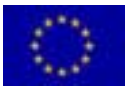
- Sectoralism between departments
- Fragmented institutional structures
- Lack of clear management strategy
- Lack of local capacity
- Poor stakeholder involvement
- Conflict between managers and communities
- Lack of critical evaluation of management performance.





How problems could be overcome:

- Bring Municipal partners into project as full members;
- Focus on vertical integration of government and community
- Local capacity building through training
- Supervision and mentoring of para-hydrologists



- Thank you for your kind attention



**Promoting Twinning of River Basins for
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- Site: www.twinbasin.org
- Mail: twinbasin@oieau.fr



More information on



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<http://www.rivertwin.org>