



Sustainable Water
Integrated Management (SWIM) -
Support Mechanism



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Water is too precious to waste

**SESSION 8: MAINSTREAMING NO-REGRET STRATEGIES INTO IWRM
FRAMEWORKS**

Training workshop on the identification and development of climate change no-regret actions in the water sector, 3-5 October 2012, Amman

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Objectives of Session 8

- **Goal:** Consider how adaptation to climate change can be incorporated in water resources management at all levels
- **Learning Objectives:**
 - Understand:
 - how can IWRM help to adapt to climate change
 - how integrate climate change in IWRM planning
 - how to prioritise no/low regret options/investments and how to integrate them into existing planning systems
 - Have an outline on:
 - adaptation tools for different steps in the adaptation cycle
 - Status of IWRM in the Arab region
 - Discuss country examples and experiences

Status of IWRM in the Arab region ⁽¹⁾

- Most Arab countries already have developed policies, plans or strategies towards IWRM
- Level of preparation of specific national IWRM plans varies from one country to the other

Key areas for improvement:

- Capacity enhancement
- Civil society involvement
- International support and coordination
- Monitoring and indicator development
- Environmental sustainability

Proportion of countries achieving progress toward IWRM target in selected regions

| Status of reform toward meeting MDG target for IWRM | Africa, Southeast Asia & Central Asia region ^a (1) | Middle East ^b region (2) | Arab region ^c (3) | Central America region ^d (4) | Asia-Pacific region ^e (5) | West Africa region ^f (6) |
|---|--|--|---------------------------------|--|---|--|
| <i>Number .of Countries:</i> | 37 | 13 | 22 | 7 | 56 | 15 |
| Good progress | 8 % | 31 % | 23 % | - | n.a. | 47 % |
| Some progress | 62 % | 38 % | 50 % | - | n.a. | 33 % |
| Initial stages | 30 % | 31 % | 27 % | 100 % | 27 % | 20 % |

b – Egypt, Jordan, Palestine, Yemen, Bahrain, Kuwait, Qatar, Saudi Arabia, UAE, Iraq, Lebanon, Oman, Syria

c –Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, UAE, Yemen

Status of IWRM in the Arab region ⁽²⁾

Evidence of adoption and use of the IWRM approach

| | |
|---------|--|
| Algeria | <ul style="list-style-type: none">• National Plan for Water - Ministry of Water Resources (2003)• National Water Law - Government of Algeria (2005)• Action Plan for implementation of an IWRM Framework - Ministry of Water Resources (draft 2006-7) |
| Egypt | <ul style="list-style-type: none">• National Water Resources Plan - Ministry of Water Resources and Irrigation (2004) |
| Morocco | <ul style="list-style-type: none">• Master Plans of Integrated Water Resources Development for River Basins - Ministry of Land, Water and Environment (2001)• National Water Plan - Ministry of Land, Water and Environment (2006)• Decree no 2-05-1594 - Development and Revision of Master Plans & National Plans for Integrated Water Resources Management - Government of Morocco |
| Tunisia | <ul style="list-style-type: none">• The Water Code (Law no.16) - Ministry of Agriculture and Water Resources (1975)• Water Master Plan for the North of Tunisia - Ministry of Agriculture and Water Resources (1970)• Water Master Plan for the Centre of Tunisia - Ministry of Agriculture and Water Resources (1977)• Water Master Plan for the South of Tunisia - Ministry of Agriculture and Water Resources (1983)• Water Resources Mobilization Strategies - Ministry of Agriculture and Water Resources (1990)• Water Conservation Strategy - Ministry of Agriculture and Water Resources (1995) |

Status of IWRM in the Arab region ⁽³⁾

Evidence of adoption and use of the IWRM approach

| | |
|------------|---|
| Mauritania | <ul style="list-style-type: none">• IWRM Action Plan - National Council for Water (2007)• National Development Policy for Water & Energy - Ministries of Water, Energy & Environment (1998)• National Water Act (Article 3) - Government of Mauritania (2005) |
| Jordan | <ul style="list-style-type: none">• National Water Policy - Ministry of Water and Irrigation• National Water Strategy - Ministry of Water and Irrigation (2003)• National Water Master Plan - Ministry of Water and Irrigation (2004) |
| Syria | <ul style="list-style-type: none">• National water Policy - Government of Syria• National Water Law (No.31) - Government of Syria (2005)• IWRM and Water Efficiency Plan - In place but partially implemented |

How can IWRM help to adapt to climate change ? ⁽¹⁾

- Building resilience through IWRM
 - Better water resources management – Greater resilience today, more effective adaptation tomorrow
 - Improving the way we use and manage water today will make it easier to address the challenges of tomorrow
 - IWRM builds social, economic and ecological resilience to climate change by taking into account the competing demands on water and the need to guarantee minimum environmental flows
 - Effective water allocation systems supported by participatory water governance and fair water rights help enable flexible responses to risks and uncertainty caused by climate change
 - IWRM enables a holistic approach to water management that also takes into account the impacts of land-use and land-use change

How can IWRM help to adapt to climate change ? ⁽²⁾

- The three main challenges are:
 - Establishing dynamic organizations able to respond strategically and effectively to changing circumstances are needed
 - Making decisions based on forecasts rather than historical data, and on managing uncertainty
 - Securing funding

Measuring the effectiveness of adaptation measures

Possible adaptation

Possible adaptation

Anticipated effect:

- Reduced pollution

runoff

Allocation

Possible adaptation measures:

- Reuse and recycle
- water treatment

harvesting

Possible adaptation measures:

- Water pricing
- Cost recovery
- Investment

Anticipated effect:

- Reduced per capita

Anticipated effect:

- Improved action responding to real needs

Anticipated effect:

- Improved action responding to real needs
- Reduced polluters in the system

Possible adaptation measures:

- Better monitoring

Climate change in IWRM planning

When initiating the planning process, climate change impacts need to be integrated into the process.

In the vision and policy development phase, adaptation to climate change is an additional element.

In evaluation results have to be measured and indicators corresponding to adaptation measures proposed in the plan.

In situation analysis, climate information (predictions) and analysis to be used.

Throughout the cycle, continuous consultation with stakeholders is essential.

An anticipatory, precautionary principle based approach as the basis for IWRM strategies.

and other variable conditional elements that have been analysed form the cornerstone for implementation.

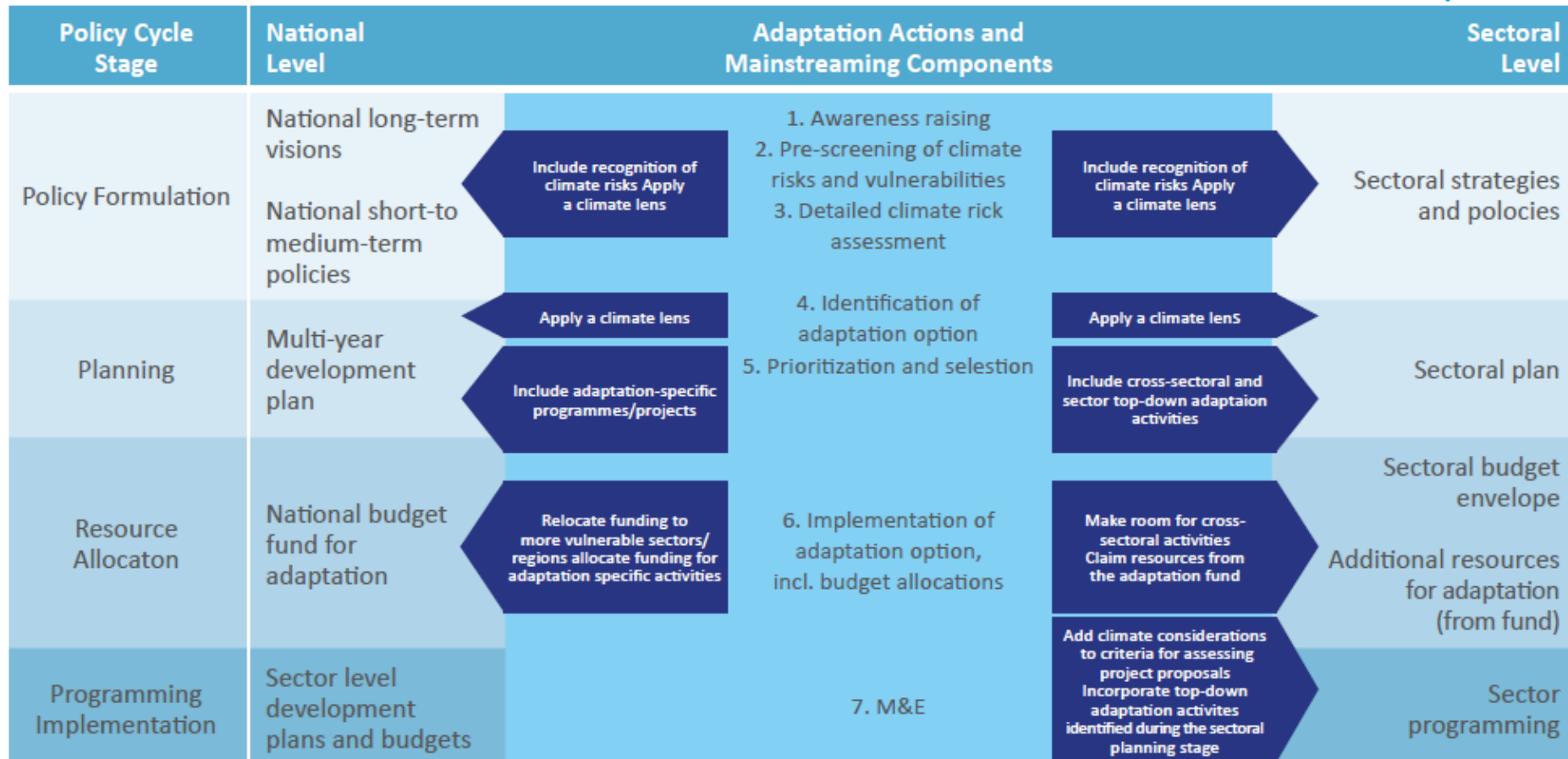
the local authorities, basin organisations and adaptation strategies in a plan.

Entry points for mainstreaming water no-regret CCA at different planning levels

| Planning level | Entry points |
|---|--|
| National government and cross-sector ministries | Poverty reduction strategy paper |
| | National development plan |
| | MDG-based national development strategy |
| | National budget allocation process or review (e.g. medium-term expenditure framework, public expenditure review) |
| Sector ministries | Sector strategies, plans and policies (e.g. agricultural sector plan) |
| | Preparation of sector budgets |
| | Public expenditure reviews |
| Subnational authorities | Decentralization policies |
| | District plans |
| | Preparation of subnational budgets |

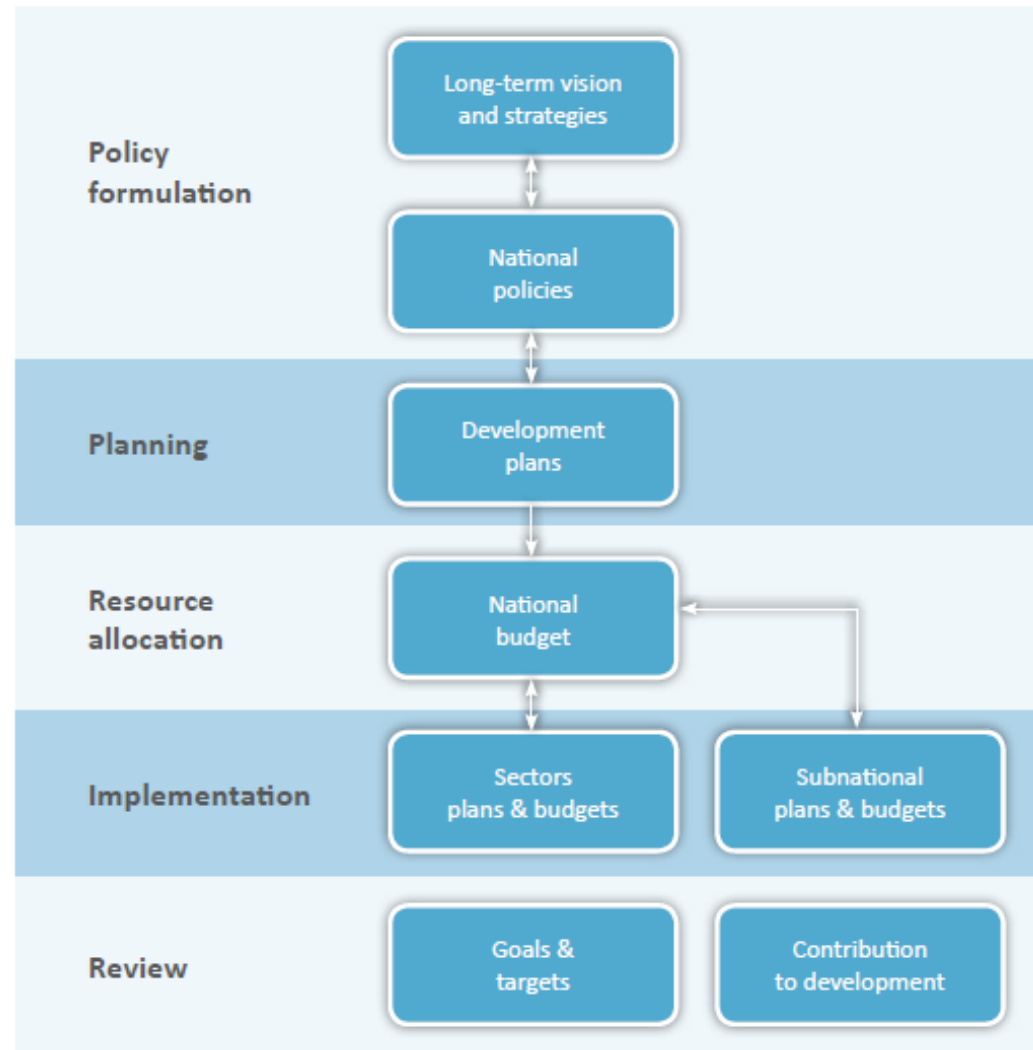
OECD framework for mainstreaming no-regret CCA

Water sector



Start with existing policies and plans

- Many SWIM countries implement five or ten-year plans and these medium and longer-term national development plans could be **key strategy documents in which to incorporate no-regrets CC adaptation actions**



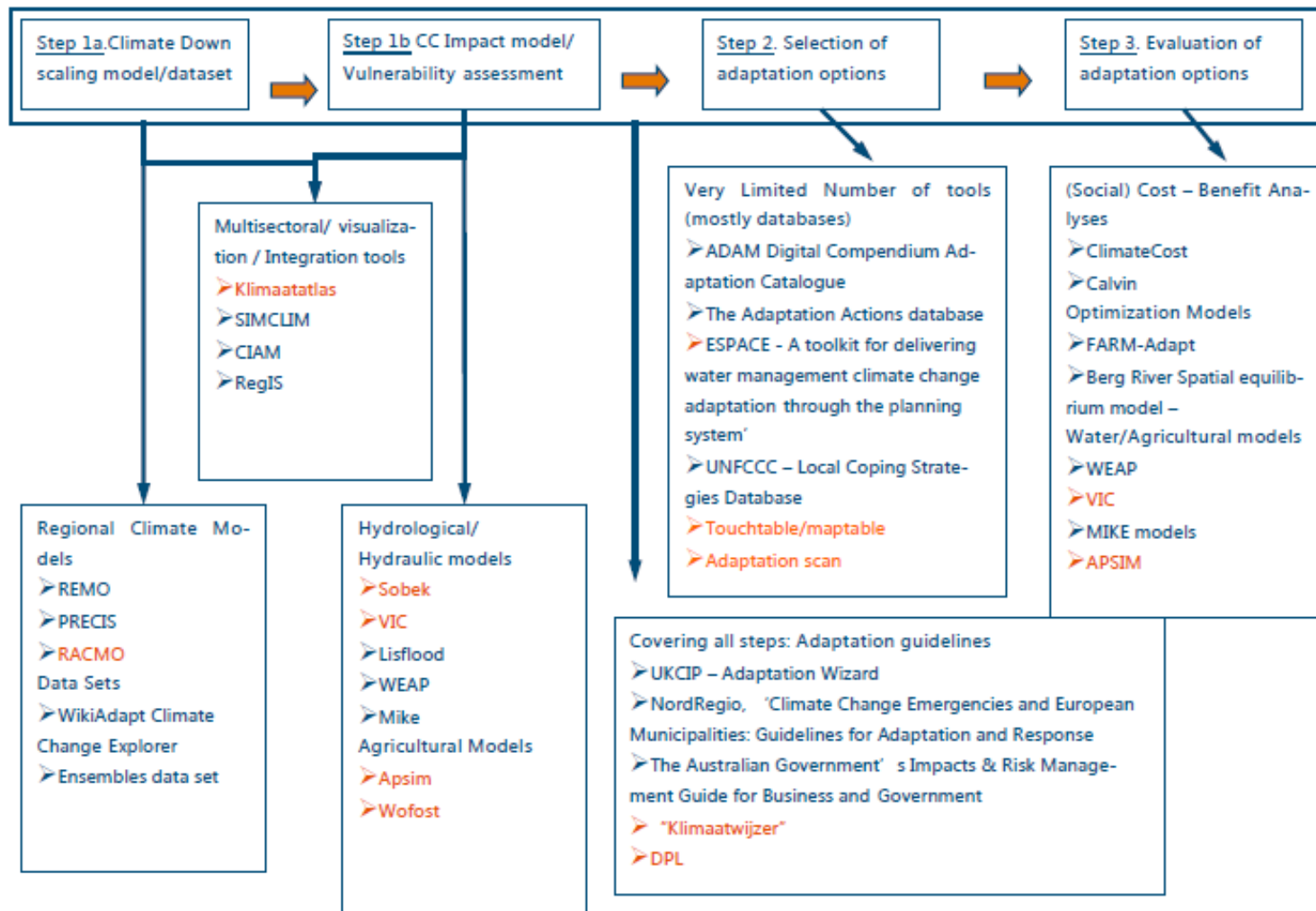
Generalised scheme of national development planning system

Example of adaptation tools for different steps in the adaptation cycle ⁽¹⁾

Most tools have been developed for one individual step within the adaptation cycle.

For step 1 (the impact assessment) usually two individuals tools are necessary (a downscaling tool and an impact model), although some tools exist which integrate both.

In addition, there are guidelines which cover all steps.



*: The tools in orange have (partly) been developed in The Netherlands

Source: Tools for climate change adaptation in water management - Inventory and assessment of methods and tools, dr. F. Ludwig & dr. R. Swart, Wageningen UR, 2010, www.knowledgeforclimate.org

Example of adaptation tools for different steps in the adaptation cycle (2)

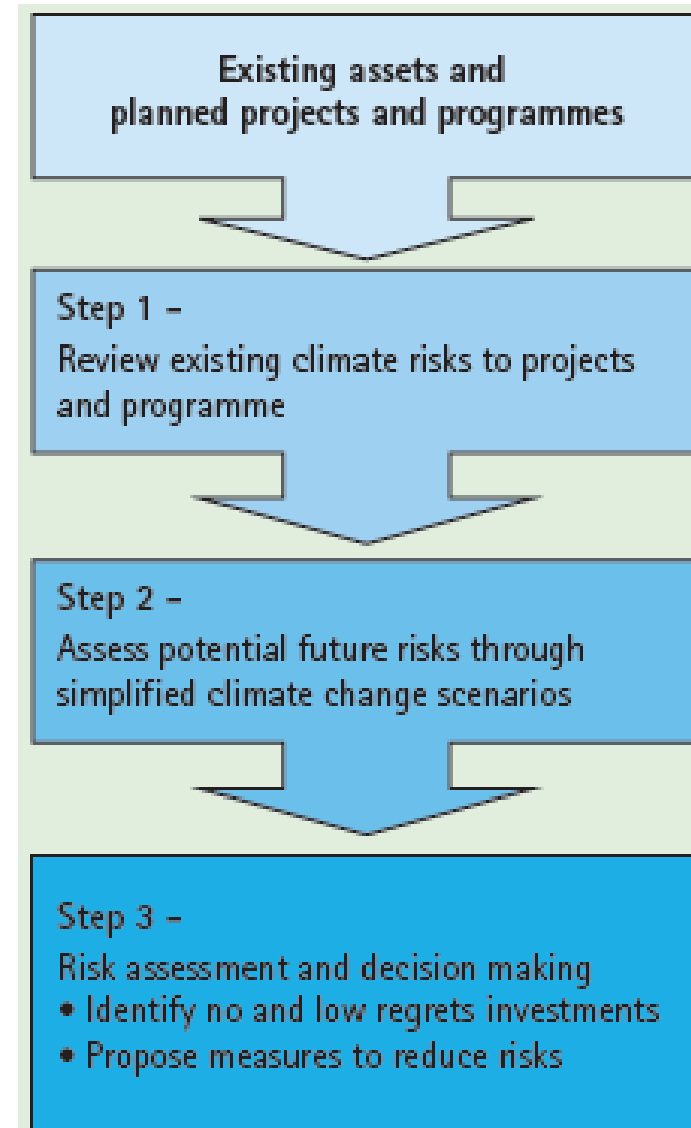
| | Key tools |
|---|--|
| – Understanding climate change–development | * Millennium Ecosystem Assessment (2005) ‘Conceptual framework of interactions between ecosystem services, human well-being and poverty reduction, and drivers of change’ |
| – Mainstreaming climate change and strengthening institutions and capacities | * Mainstreaming framework * National capacity self-assessment (NCSA) * Stakeholder analysis * Setting up of working mechanisms * Complementary activities supporting learning-by-doing : – Formal training – Exchange visits – On-the-job learning – Lesson learning and dissemination |
| – Understanding the basics of climate change | No specific ‘tool’ |
| – Understanding and planning under uncertainty | * Adaptive management * Scenario-based planning |
| – Raising awareness and building partnerships | * Vulnerability and adaptation assessment * Macro and meso economic analysis * Demonstration or pilot projects * Communication and advocacy strategy |
| – Mainstreaming climate change in national, sector and sub-national policies, strategies and programmes | * EuropeAid’s Climate change sector scripts * <u>Climate risk screening</u> * Climate risk assessment * Strategic environmental assessment (SEA) (including lighter forms of such assessments) * Also – Vulnerability and adaptation assessment – Macro and meso economic analysis – Demonstration or pilot projects – Communication and advocacy strategy |

Example of adaptation tools for different steps in the adaptation cycle (3)

| | Key tools |
|---|---|
| – Costing, assessing and selecting adaptation and mitigation options and measures | <ul style="list-style-type: none"> * Cost-benefit analysis (CBA) * Cost-effectiveness analysis (CEA) * Multi-criteria analysis (MCA) |
| – Mainstreaming climate change in the budgetary process | <ul style="list-style-type: none"> * Public expenditure review (PER) * Also <ul style="list-style-type: none"> – <u>Climate risk screening</u> (as a pre-requisite for the financing of measures by the capital expenditure budget) – Cost-benefit and cost-effectiveness analysis (supporting the costing of measures to be budgeted) – Multi-criteria analysis (for prioritising measures to be budgeted) |
| – Mainstreaming climate change in monitoring systems | <ul style="list-style-type: none"> * Performance assessment framework (PAF) – Milestones, indicators and targets (to be integrated into the wider development monitoring system) |

Screening for, and reducing, climate risks in existing and planned projects and programmes ⁽¹⁾

- **Screening** is used to classify projects and programmes according to their climate risks
- No/low regret projects and programmes, and risk reduction measures are then **prioritised**



Screening for, and reducing, climate risks in existing and planned projects and programmes (2)

- to prioritise no/low regret options and to make a clear economic case for investment, this can be achieved through:
 - „**Screening current and planned water-related government programmes and investments**, and identifying options for improving resilience
 - **Strengthening multi-stakeholder platforms** to identify innovative no/low regrets investment options through dialogue across sectors, levels of governance and actors involved with planning in climate sensitive activities
 - ”
 - **Appraising long lists of options for climate resilience** using Robust Decision Making (RDM) to identify no/low regrets for investment
 - ”
 - **Making the economic case for no/low regrets** using economic analysis including the valuation of ecosystems services where possible, using multi-criteria analysis where necessary
 - **Prioritisation of a balanced portfolio of investments**, for subsequent integration into existing development planning processes

Screening for, and reducing, climate risks in existing and planned projects and programmes ⁽³⁾

- Principles for reducing climate risks identified through screening:
 - **Reduce uncertainties**
 - Can the uncertainties of climate change impacts be reduced?
 - **Do things differently**
 - Can the design be altered to reduce risks and what is the benefit/cost ratio of doing this?
 - Can the programme/project be implemented in stages to test the impact of climate on the success of the programme/project?
 - **Do different things**
 - Are there alternative ways of achieving the programme or project goals with lower climate risks?
 - **Bear the climate change risk**

Identify new and innovative investment opportunities

- In addition to **screening** existing systems, new opportunities for climate resilience can be identified and developed
- Partnerships across sectors or levels can result in dialogues, innovation and ideas
- Focus should remain on using and strengthening established **stakeholder platforms** where these exist, although tailoring stakeholder platforms may be required for the specific context of the Framework application

Integrate no/low regrets investment strategies in development planning ⁽¹⁾

- Integration of the no/low regrets investments into existing planning systems involves the following actions:
 - **Ensuring high level political support** for integrating investments into relevant planning bodies' detailed planning processes
 - **Anchoring the process in a higher level government ministry or body** with the authority to convene sectors
 - the Ministry of Finance, Cabinet Committee, Prime Minister or Vice President's Office are some examples
 - **Understanding the national development planning process**, process for developing a Medium-Term Expenditure Framework (MTEF) and annual sector budget and budget allocation, and finding entry points to influence these
 - **Identifying the relevant planning authorities for individual no/low regret investment areas**
 - **Ensuring that the investments can be built into annual budgetary processes** or in the case of medium-term investments built into MTEFs

Integrate no/low regrets investment strategies in development planning ⁽²⁾

- Integration of the no/low regrets investments into existing planning systems involves the following actions:
 - **Integrating investments into bilateral and multilateral country assistance and/or investment plans**
 - **Ensuring plans and policies for budget support contributions** (from external funds) identify water security and climate resilience as outcomes, and incorporate no/low regret investments for implementation
 - **Integrating investments into departmental and/or other organisational strategic plans** through alignment with their goals, targeting strategies during periods of renewal and forging dialogue with those directly involved with strategy formulation, ideally through the medium of national level government
 - **Identifying “windows of opportunity” for detailed planning and implementation of investments within existing plans and strategies** or integrating longer term investments in strategies under review
 - **Maintaining support to planners through partnership and capacity building** to catalyse integration and capitalise on new skills and partnerships

Key messages ⁽¹⁾

- **Climate change** is one of several stressors, along with population growth and land use change, that accentuates water-associated vulnerabilities in SWIM countries
- **Adaptation** is considered a **no-regret approach** because adapting to climate change will benefit and leverage efforts in managing water scarcity
- **Drought and flood planning** are necessary, including the **development of water storage and transfer capacity**
 - By addressing **water scarcity**, **climate variability**, **demographic factors**, **land use changes**, and **deficiencies in water services**, it would be possible to enhance the resilience of different systems to projected climatic change

Key messages ⁽²⁾

- Implementation of no-regret CC adaptation strategies within national water resources strategic plans in the Arab region require:
 - interaction and horizontal coordination between multiple levels of government institutions
 - the involvement of stakeholders, civil societies, business sectors and the public
- Countries in the region should tap international funds available now to promote strategies and implement actions for adaptation to variability and CC

شكرا لانتباهكم

Thank you for your
attention



Q&A, Discussion

- Any needs for clarification?
- What is the actual status of IWRM in your country?
- How Climate Change adaptation is integrated in the water planning process in your context? Or what are the constraints in your country impeding this mainstreaming?
- Have you an experience to share in dealing with climate variability that provides an important lesson for decision makers?