Integrated Water Resources Management in Africa
An Independent Evaluation of Bank Assistance
2000-2010
SUMMARY REPORT
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CODE SUMMARY REPORT

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## Abbreviations

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<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>ADF</td>
<td>African Development Fund</td>
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<tr>
<td>AfDB or the Bank</td>
<td>African Development Bank</td>
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<td>AgWa</td>
<td>???</td>
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<td>AMCOW</td>
<td>African Ministerial Conference on Water</td>
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<td>AWF</td>
<td>African Water Facility (AfDB)</td>
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<td>CSP</td>
<td>Country Strategy Paper</td>
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<td>IWRM</td>
<td>Integrated water resources management</td>
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<td>ONEC</td>
<td>Department for Energy, Environment and Climate Change (AfDB)</td>
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<td>OPSM</td>
<td>Private Sector Department (AfDB)</td>
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<tr>
<td>OSAN</td>
<td>Department for Agriculture and Agro-Industry (AfDB)</td>
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<td>OWAS</td>
<td>Water and Sanitation Department (AfDB)</td>
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<td>MDG</td>
<td>Millennium Development Goal</td>
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<td>PCR</td>
<td>Project Completion Report</td>
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<td>RMC</td>
<td>Regional Member Country (AfDB)</td>
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<td>SWAp</td>
<td>Sector-wide approach</td>
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<td>UA</td>
<td>Unit of Account</td>
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<td>UN</td>
<td>United Nations</td>
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<td>WPP</td>
<td>Water Partnership Program (AfDB), also known as MDWPP</td>
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Preface

Integrated water resources management (IWRM) coordinates the development and management of water resources to maximize economic and social welfare without compromising the sustainability of vital ecosystems. It helps countries adhere to the Dublin Principles and commitments made at the World Summits on Sustainable Development in Rio de Janeiro (1997, 2002) and Johannesburg (2005) to improve water resources management. The most recent UN Status Report on the Application of Integrated Approaches to Water Resources Management (2012) confirmed the relevance of integrated approaches, as defined in Agenda 21, asserting their essential role in strategies for building a green economy founded on principles of sustainable development, poverty eradication, and climate resilience.

In April 2000 the African Development Bank approved an IWRM policy to promote efficient, equitable, and sustainable water development through investments in water and sanitation, agricultural production, energy, and protection of biodiversity and the environment. The IWRM policy called for a new approach to water resources development and management based on recognizing its competing needs and understanding its connections with socioeconomic development, water security, energy, food production, public health, the environment, and other public policy objectives.

This evaluation assessed the continued relevance of the Bank’s IWRM policy, the policy’s implementation, and the results over 2000–2010. The evaluation also considered any changes that the Bank might need to make to the policy, institutional structures, and business processes. The study reviewed the Bank’s water-related portfolio (including irrigation, hydropower, water supply and sanitation, and water resources management), quality at entry of Country Strategy Papers and Project Appraisal Reports, Project Completion Reports, the IWRM literature, and the IWRM policy paper, and conducted four country case studies (Morocco, Senegal, Uganda, and Zambia). The working papers on these components of the evaluation are available on request from the Operations Evaluation Department (OPEV). The synthesis report of the evaluation is available from OPEV.

This report was task managed successively by Joanne Asquith and Ramesh Adhikari, with support from Akua Arthur Kissi, Girma Earo Kumbi, Samson Kohovi Houetohosso, and Sabiha Jouini from OPEV and with the guidance of Odile Keller, Division Manager. Valuable contributions were provided by Michael Schutz, Roderick Stirrat, Reinold Seidelmann, Ele Jan Saaf, and Claudine Voyadzis. Peer review comments were provided by Joseph Mouanda and Madhu Mampuzhasseril from OPEV and Ele Jan Saaf as an external peer. Finally, we would like to thank the Water and Sanitation Department (OWAS), the Department for Agriculture and Agro-Industry (OSAN), the Department for Energy, Environment and Climate Change (ONEC) and the AfDB country offices in Morocco, Senegal, Uganda and Zambia for their consistent support during this evaluation.

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Executive Summary

1. This evaluation assesses the relevance of the African Development Bank’s (the Bank’s) 2000 integrated water resources management (IWRM) policy to Regional Member Country (RMC) needs and the Bank’s corporate objectives. It also considers the Bank’s effectiveness in implementing the policy, the results and challenges of policy implementation, and changes to the policy framework and institutional structures for water-related operations in the Bank that could improve implementation and better achieve the goals of IWRM. The evaluation covers 2000–2010 and will inform the revision of the IWRM policy. It was informed by five background papers, and the interviews and consultations with the stakeholders in the Bank and in RMCs.

Key findings

How relevant is the Bank’s IWRM policy?

2. Water resources and water services in Africa are severely underdeveloped. Less than 5 percent of Africa’s surface water and groundwater are harnessed for use. Climate change, population growth, industrialization, and rapid urbanization are bringing new challenges to water resources development and management in the region. In general, IWRM remains the dominant paradigm for water resources management and the RMCs have increasingly been integrating IWRM into their water-related legislations and investments.

3. The Bank’s IWRM policy remains fundamentally relevant to its new long-term strategic orientation for building a green economy founded on principles of sustainable development, inclusive growth, poverty reduction, and climate resilience. Water resources management is vital to achieving the corporate policy objective of advancing economic growth and poverty reduction with increased economic cooperation in Africa in a socially inclusive and financially and environmentally sustainable manner at both national and sub-regional levels. The Bank’s Medium Term Strategy and its next 10 Year Strategy (2013–2022) both emphasize IWRM.

4. Although the policy’s objectives remain relevant, the policy paper needs to be revisited in order to adapt it to Africa’s new challenges and the Bank’s new strategic orientation. Though compatible with the IWRM policies of other multilateral development banks, the Bank’s policy paper (2000) is too long, and is already more than 12 years old. It lacks clarity on certain aspects, especially implementation guidance, and does not mention some of Africa’s new challenges such as the impact of climate change, food security, or green and inclusive economic growth. The challenges and opportunities to support RMCs in transboundary basin management continue.

Has the volume of the Bank’s portfolio reflected its commitment to IWRM?

5. The Bank increased substantially both the volume of the Bank’s water-related operations and the size of individual operations over the evaluation period compared with the previous decades. Over 2000–2010 the Bank approved 167 water-related investment projects and 48 technical assistance projects totaling UA 3,116.27 million and representing 9 percent of the Bank’s portfolio, up from 7.8 percent over 1967–1999. The
Bank approved another 66 projects amounting to UA 67.47 million under the African Water Facility (AWF). The average size of water operations increased from UA 4.97 million to UA 13.76 million for African Development Fund (ADF) operations and from UA 19.5 million to UA 43.65 million for African Development Bank (AfDB) operations.

6. The Bank has increasingly diversified its water portfolio, but most investment projects are still concentrated in water supply and sanitation, though projects in water and the environment are gaining their shares. Water supply and sanitation projects make up 60 percent of the portfolio; water and land (irrigation and hydropower), 19 percent; and water and the environment, 15 percent. The portfolio also includes some multinational operations supporting transboundary water resources management (4 percent). The Bank relied mainly on project financing (90 percent) to support the water sector, making little use of policy-based instruments (6 percent) or technical assistance.

7. Although the Bank took a number of key actions to implement the IWRM policy, project-based financing dominated all other instruments for water-related operations over 2000–2010. The Bank undertook a number of key actions and made strategic statements in relation to the IWRM policy implementation. The Rural Water Supply and Sanitation Initiative (RWSSI) special fund, which represents about 10 percent of total RWSSI financing at the Bank, has played an important role in strengthening the management and enhancing the achievements of RWSSI, and in leveraging additional resources to the Initiative from the Bank and other donors.

8. Although the policy paper envisaged that the Bank would conduct substantial analytical work and knowledge sharing, the evaluation found that it had not done enough. The Bank engaged in economic and sector work and knowledge sharing to support its water operations and help RMCs understand and apply IWRM approaches in recent years.

Have the IWRM principles been implemented at the project level? How has the Bank’s water portfolio performed?

9. The Bank’s water-related operations have satisfactorily incorporated to a satisfactory degree IWRM principles in their design, but not in a holistic, cross-sector approach. An IWRM quality at entry review undertaken for the evaluation found the consideration of IWRM principles in project designs to be satisfactory in many respects, particularly in domains with clear operational criteria and guidelines (such as environmental and social impact assessments). Most projects were at the subsector level and infrastructure-oriented. Few projects explicitly addressed the regulatory and institutional framework for IWRM beyond the immediate needs for operation and maintenance of infrastructure.

10. The economic dimension received the least attention in the design of the sample projects. Projects generally included cost recovery for infrastructure operation and maintenance, but they rarely recognized water as an economic good whose price is important for water allocation, demand management, and resource protection (the "polluter pays" principle). The technical dimension and the environmental dimension also received only moderate attention.
11. Close to half of the completed projects in the water sector received a satisfactory rating. The reviewed projects were relevant in that they supported RMC development objectives, but their execution was slow or ineffective. Project Completion Reports (PCRs) attributed the unsuccessful ratings to inability to achieve planned outcomes, inefficient resource use, implementation delays, and high risk to project sustainability due to lack of financial provision or revenue generation and limited institutional capacity. Projects rated satisfactory adhered more closely to IWRM principles in their design and implementation than did projects rated unsuccessful/unsatisfactory.

**How effectively has the Bank supported its RMCs in implementing IWRM at policy and institutional levels?**

12. The Bank has made modest achievements in supporting development and implementing IWRM at the country level, particularly in institutional strengthening, with its integrated approach to water resources management and water storage, thus making the water sector attractive to private investors in RMCs. The RWSSI, AWF, and WPP operations have provided support to IWRM implementation in RMCs albeit in a limited manner. Analytical work has been limited, with most of it undertaken through the AWF and the Water Partnership Program (WPP) which was instrumental in IWRM implementation. It contributed to the knowledge outreach and good practice dissemination although with its limited resources (0.2 percent of the total water portfolio). The Bank’s interventions have been mainly project-based and at the subsector level. Most Bank support has not been embedded in a comprehensive, integrated, cross-sector IWRM approach to water resource allocation and conservation (Morocco was an exception).

**Have the Bank’s business processes and institutional structures contributed to IWRM policy implementation?**

13. The Bank’s business processes and organizational structure are not well adapted to delivering a comprehensive, integrated, and cross-sector IWRM approach. The Bank’s operational departments continue to operate vertically. Many implementation mechanisms envisaged in the IWRM policy have not been deployed (such as a cross-department task force, detailed checklists for project appraisals, and a biennial review of implementation). The creation of the Water and Sanitation Department (OWAS) as an IWRM focal point was a step in the right direction, but OWAS does not have the authority or resources to coordinate planning and implementation with other departments. With no incentives for joint projects or for a support program for the water sector as a whole in RMCs, sector departments continue to work alone, with little partnership and shared knowledge on IWRM across the Bank.

14. There is a fundamental gap in the business process as the Country Strategy Papers (CSPs) did not undertake the envisaged role of pursuing policy dialogue with the client governments and development partners with regard to the allocation of resources for IWRM policy implementation. A quality at entry review of 40 CSPs found no evidence of the envisaged programmatic link between country strategies and water-related assistance.
15. There are also gaps in internal capacities, knowledge sharing, and networking, as well as recognition and reward for new ideas and excellence in water practices that contribute to greater development outcomes of Bank operations.

Conclusions and Recommendations

16. The Bank has realized only part of its ambitious vision for IWRM. The positive response of RMCs to the Bank’s engagement in water groups for water resources management at the country level shows that the demand is there. And the close fit of IWRM with the Bank’s objectives of inclusive and green economic growth and regional cooperation in Africa indicates the relevance of this approach to managing scarce water resources.

17. The Bank has not developed a detailed plan for implementing its IWRM policy nor installed the envisioned coordination mechanisms for ensuring a Bank-wide approach to water management. Revising the IWRM policy alone will contribute very little in achieving the intended goals, if the enabling conditions in the Bank for the implementation of this policy do not exist.

18. To better serve its RMCs, any revision of the Bank’s IWRM policy must give equal attention to implementing the policy through a “one Bank approach”. This will require not only developing more collaborative approaches among departments, but also identifying the instruments—analytical work, policy dialogue, institutional development, and an appropriate mix of staff skills and resources, recognition and reward—that will enable more strategic engagement and achievement of long-lasting development outcomes of the Bank’s water-related operations.

19. The following recommendations for the Bank’s IWRM policy emerge from this evaluation:

a) **The Bank should update the policy framework and develop a more focused and concise policy paper** stating clearly the priorities of the Bank in the water sector, covering rural, urban, and multinational/transboundary-level operations. The paper should specify how an IWRM approach would support the Bank’s strategic orientation toward water for inclusive and green growth and acknowledge water-related challenges such as climate change mitigation and adaptation, urbanization, industrialization, and regional cooperation.

b) **Define the scope and level of interventions to guide implementation.** The Bank should (1) deepen its approach to cost recovery by engaging also in strategic policy dialogue with government authorities on this issue; (2) scale up its support to institutional capacity for IWRM implementation; and (3) increase its support and approach to transboundary river and lake basin management.

c) **The Bank should adapt resources and the instruments, institutional structures/mechanisms and business processes to the policy goals by:**

i) Providing more grant resources to fund analytical work and capacity building for RMCs and make greater use of
programmatic approaches in its lending and grant assistance.

ii) Developing and implementing an interdepartmental review mechanism for implementing the policy and water-related operations through increased Bank-wide coordination, collaboration, and results monitoring. A panel of external water experts could initially support the group.

d) The Bank should develop and implement a corporate-level, medium-term operational strategy, one of the major responsibilities of the proposed interdepartmental policy coordination group. The operational strategy should include a clear business plan detailing key tasks, intended outcomes, and the required resources. The strategy should include monitoring and reporting mechanisms within the Bank. It should also invite donors and shareholders to provide dedicated resources for IWRM implementation.

e) The CSP process should be strengthened and used to inform strategic decisions at the country level and be supported by robust water sector diagnostics and analytical work that provide a strong strategic rationale for the Bank’s involvement.

f) The Bank-administered AFW, WPP, RWSSI and other similar initiatives should be strategically aligned under the CSP and under the ‘one Bank’ approach. This approach can be piloted in a few countries to start with, in particular in RMCs where the Bank has already supported IWRM-related activities and fine-tuned and implemented in other RMCs.

g) The Bank should improve its internal capacities, IWRM knowledge sharing, and incentives and transform itself into a lead development partner as well as a knowledge bank for the water sector in Africa by:

i) Providing regular learning events;

ii) Developing and implementing a community of practice for water-related operations;

iii) Streamlining project preparation with proper attention to sustainability issues of Bank-funded, water-related operations; and

iv) Formally recognizing and rewarding Bank staff for their new ideas and excellence in water practices that improve development outcomes of Bank-funded, water-related operations.
1. INTRODUCTION

1.1 This evaluation assesses the relevance of the African Development Bank’s (the Bank’s) 2000 integrated water resources management (IWRM) policy to Regional Member Country (RMC) needs and the Bank’s corporate objectives, its effectiveness in implementing the policy, and results from completed projects. The evaluation focuses on the period 2000–2010. The evaluation is intended for Board members, management and senior officers of the Bank, task managers and staff who work in water-related operations, stakeholders in RMCs, and key development partners. Its findings and recommendations are expected to inform the planned revision of the IWRM policy.¹

1.2 This Summary Report is based on the findings of a portfolio review of water and water-related operations, a quality at entry review of Project Appraisal Reports and Country Strategy Papers (CSPs) from an IWRM perspective, four country case studies (Morocco, Senegal, Uganda, and Zambia), an IWRM literature review, and a policy review by the evaluation team.² Document review and analyses, interviews with stakeholders in the Bank and in RMCs, and field visits to the four case study countries informed the study. A database was constructed on approved loans and grants using data from the Bank’s water-related departments (Department for Energy, Environment, and Climate Change, ONEC; Private Sector Operations Department, OPSM; Department for Agriculture and Agro-Industry, OSAN; and Water and Sanitation Department, OWAS). The analysis of project-level results was based on a review of 32 Project Completion Reports (PCRs) which comprised 21.3 percent of value of the projects approved and completed during the evaluation period.³ See Appendix 1 for details on the methodology and its limitations.

1.3 This report is organized under five main evaluation questions (sections 2–6), with a final section on conclusions and recommendations for the Bank.

¹ The Bank’s Operational Resources and Policies Department is planning to revise the 2000 IWRM policy in 2013.

² These reports are available on request from the Operations Evaluation Department (OPEV).

³ It was also informed by the performance ratings of the relevant PCR evaluation notes, and project performance and thematic evaluation reports prepared by OPEV.
2. HOW RELEVANT IS THE BANK’S IWRM POLICY?

2.1 Water resources management remains challenging in Africa. Water resources and water services are severely underdeveloped: less than 5 percent of Africa’s surface water and groundwater is harnessed for use due to low levels of investments and poor water resources and watershed management. Water use in agriculture and energy production is low, thus slowing economic growth, poverty reduction, and achievement of the Millennium Development Goals. In Sub-Saharan Africa, 40 percent of people lack access to safe drinking water and 69 percent to improved sanitation facilities. Conditions are even worse in rural areas. The health implications are devastating: more than 1 million African children, many of them under the age of five, die of water-related diseases each year. In addition to these persistent challenges, water resources management in the region is facing an onslaught of new ones, including climate change, extreme weather events such as droughts and floods, and environmental degradation due to industrialization and rapid urbanization.

2.2 IWRM is the state-of-the-art approach for both developed and developing countries. The UN Status Report on the Application of Integrated Approaches to Water Resources Management 2012 affirms that the integrated approach, as defined in chapter 18 of the United Nations Action Plan, Agenda 21, adopted at the 1992 United Nations Conference on Environment and Development, remains an essential part of any strategy for sustainable development and poverty eradication and a key element in building climate resilience.

2.3 Water resources management issues are cross-sectoral, and positive development outcomes depend on forging cross-sector links among investments in agriculture and forestry, energy, public health, education, and environment. The water sector development assistance paradigm has changed accordingly over the last two decades, from individual project financing to program financing and from water resources management to an integrated approach to ensure that scarce water resources are allocated and used in a socially equitable, economically efficient, and environmentally sustainable manner. Water resources management is also cross-sectional, with implications for gender, economic development, and poverty reduction.

2.4 The Bank hosts a number of initiatives to promote improved water resource management throughout Africa. The Africa Water Facility (AWF), established by African Ministers’ Council on Water (AMCOW), has a mandate to help countries implement the Africa Water Vision.

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5 United Nations Environment Program, 2012, Status Report on the Application of Integrated Approaches to Water Resources Management. The related survey of 133 countries (of 192 UN member countries), including 40 African countries, found that (i) 82 percent of countries are implementing changes to their water laws; (ii) 79 percent have revised their water policy and laws and 65 percent have developed IWRM plans, but implementation lags; (iii) 34 percent report an advanced stage of implementation, but implementation has slowed or even regressed in low and medium Human Development Index countries since the survey in 2008; and (iv) 67 percent report that water issues are included in national development plans, though 25 percent note obstacles relating to legal frameworks and strategic planning.

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4 Only 5 percent of Africa’s cultivated land is irrigated, less than 10 percent of its hydropower potential has been hatched, and only 58 percent of the population has access to safe drinking water (World Bank, 2009, Africa’s Infrastructure: A Time for Transformation, ch. 14).
and meet the water MDGs. The AWF is explicitly focused on helping countries manage their water resources according to the principles of IWRM. It funds studies and other preparatory work to ensure that large-scale investments in the water sector take account of the different uses of water and that it is managed in an integrated way. The AWF is a significant supporter of IWRM activity at country level. Although AWF is housed within OWAS, it operates separately from the rest of the Bank’s operations and is not fully integrated into day-to-day Bank operations, and in particular, the country strategy process. This has possibly limited the extent to which the AWF has been able to promote the mainstreaming of IWRM within the Bank’s operations.

2.5 The Bank also hosts the Infrastructure Consortium for Africa (ICA) and the Program for Infrastructure in Africa (PIDA). The PIDA was established by the G8, the African Union, the New Partnership for African Development (NEPAD) and the AfDB – all working together to promote investment in regional and strategic infrastructure, including water infrastructure.

a) How relevant is the IWRM policy for Africa?

2.6 Multilateral development banks, including the Bank and bilateral donors, have adopted an IWRM framework for their water activities. There is broad consistency in the policies and approach to IWRM among multilateral development banks, with some subtle differences in emphasis according to each institution’s client countries. For example, the Bank is more cautious about cost-recovery initiatives and decentralization, believing that Africa’s high poverty rates and weak institutions require more gradualism. It identifies poverty reduction as the overarching objective of its IWRM policy and considers all actions for their impact on poverty. This sets it slightly apart from the World Bank and the Asian Development Bank, which emphasize water for all (see box 6.1 in section 6). The basic principles and central objective of the Bank’s IWRM policy (box 2.1) are consistent with the 1992 Dublin Principles and chapter 18 of Agenda 21.

2.7 Evaluations by multilateral development banks and bilateral donors have found IWRM to be conceptually sound but difficult to implement. IWRM requires complex coordination of policies, institutions, and project activities across water subsectors to effectively address multi-sectoral issues. Obstacles include: conservative bureaucratic structures, inconsistent government commitment, limited human and financial resources, and a dense web of institutions, organizations, and water users.

2.8 Evaluations and other studies have shown that managing IWRM implementation requires as much attention as does the production of plans. Successful implementation of IWRM requires competent institutions that agree on how best to manage a limited resource for the collective

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6 The Africa Water Vision was jointly prepared by the Bank and Economic Commission for Africa. Its aim is the “equitable and sustainable use and management of water resources for poverty alleviation, socio-economic development, regional cooperation, and the environment.”

7 See Appendix 2 for further details on the Dublin Principles and Agenda 21.

It also requires agreement on how to deal with such challenges as climate change and regional cooperation in water resources management. It is also demanding in terms of time and resources as it requires legislative changes, institutional strengthening, and public awareness.

**b) Is the 2000 IWRM policy still relevant?**

2.9 Water resources management remains a core Bank priority, central to achieving its wider corporate policy objectives. Water resources management—including water supply and sanitation service provision, irrigation, and hydropower—features throughout the Bank’s Medium Term Strategy (2008–2012) and the next Bank’s Ten-Year Strategy (2013–2022) and is linked to the Bank’s policies and strategies on gender, energy, agriculture, climate risk management, food security, the environment, and regional integration. The IWRM policy aims to promote efficient, equitable, and sustainable development in water investments through the Bank’s engagement in the water sector in RMCs. It emphasizes the need for an integrated approach to accommodate the connections of water with socioeconomic development, energy and food production, public health, environment, regional integration, and other challenges and concerns.

2.10 The policy paper identifies actions for a more coherent and connected country assistance approach to water resources management (see box 2.2). It advocates collaborating with donors and drawing on their policies and experiences with

**Box 2.1 The African Development Bank’s policy for IWRM, 2000**

**Key definitions:** The policy paper defines (i) IWRM as a comprehensive approach to water resources management (WRM) that views water as a single resource with competing uses and inter-linkages with ecological, social and economic systems; (ii) WRM as the institutionalized activities of water resources development, utilization, allocation, conservation and control; and (iii) watershed management as the adoption and implementation of best management practices that protect, rehabilitate, and enhance the watershed, which is an area drained by a river or stream system (the conceptual framework considers the entire hydrographic basin as the unit of management) and (v) river basin as a geographical area determined by the watershed limits of a system of water. **Basic principles:** Water should be treated as an economic, social, and environmental good, and policies guiding water resources management should be analyzed within an integrated framework. **Central objective:** To promote efficient, equitable, and sustainable development through IWRM. To these ends the Bank’s strategies and policy statements are spelled out under the five dimensions: institutional, technical, economic, social, and environmental, and 40 actions are envisioned.

IWRM. While adhering to the central objective and core principles of IWRM, the policy paper makes the case for tailoring the approach to Africa’s particular circumstances. Weak institutions, partial cost recovery, and multiple transboundary water resources necessitate a more prominent role for government and attention to promoting an enabling environment for public-private partnerships and sustainable project outcomes. The policy paper identifies 40 key actions to implement IWRM through institutional, technical, economic, social, and environmental dimensions.

2.11 The policy paper also identifies priorities for the Bank’s water assistance, but they were not adhered to in the Bank’s water sector operations. The priorities are developing a comprehensive, integrated analytical approach at the country level that emphasizes water as a social, economic, and environmental good and that establishes an enabling technical and institutional framework; adapting and strengthening institutions to improve management, promote cost recovery and financial autonomy, and improve knowledge of water resources and their use; and expanding joint action on transboundary water resources management. Implementing the policy requires prioritizing issues and investment needs identified in CSPs and assessing the impact of individual water projects on other water resources, users, populations, and the environment at the basin level. These were absent in the CSP process.

2.12 The policy calls for developing adequate internal capacities for IWRM. Developing internal capacity includes setting up an IWRM focal point, creating a multidisciplinary IWRM task force, allocating adequate staff time to incorporate IWRM into project preparation, formulating detailed checklists and guidelines for water project appraisals, and prioritizing water projects that implement IWRM concepts. Very little has been achieved in this area over the evaluation period.

2.13 Although the overall objectives are stated explicitly, the policy paper is too long and lacks

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9 It comprises 7 pages of summary, 43 pages of main text, and 33 pages of annexes—83 pages in all. In contrast, the World Bank’s water sector strategy has 4 pages of summary with 7 clear messages, though the full document is 73 pages. The Asian Development Bank policy paper also has a total of 73 pages, 37 pages of main text and 36 pages of annexes. The Inter-American Development Bank’s policy paper is much shorter, at 36 pages (12 of which are annexes).
Box 2.2 IWRM Policy Paper: The Missing Middle

The Bank’s IWRM policy paper is a good guide to the concept of IWRM as advocated by its adherents in 2000 and provides a comprehensive list of more than 40 actions it could take to implement IWRM under the headings of institutional, technical, economic, social and environmental. The policy makes clear how delivering a policy on IWRM will contribute to the Bank’s wider purpose and goal. The paper envisages using the Bank’s existing country strategy and programming process as the principal means of delivering the policy. Alongside the policy of mainstreaming IWRM also proposes the establishment of a focal point and a multi-disciplinary Task Force to oversee and review the policy and its implementation. However, the timeframe of the policy is not clear and there were no time-bound targets or indicators or a date set for the review process. Apart from the establishment of a focal point and multi-disciplinary task force, the policy paper says little about the scale of program resources it is envisaged will be needed to deliver the policy. It is worth noting that subsequently, ADF X? resources were earmarked for Rural Water Supply and Sanitation Initiative, although this was not foreseen in the policy paper. The evidence used to support the policy is general and focused on justifying the Bank’s engagement in the water sector. There is no evidence that an integrated approach to water management has delivered the benefits claimed for it.

There is a “missing middle” to the policy paper. This could have described how the Bank could support IWRM in country programs. Since the publication of the policy, aid effectiveness has become a significant policy issue for donors and recipients. The Bank should apply the principles of aid effectiveness to its work in the water sector. This would entail harmonizing its approaches with other donors, aligning its support with government systems, and then working with other donors to coordinate all support to the sector through a sector-wide approach. These are essential first steps towards improving water resource management in an integrated manner.


clarity, and is already more than 12 years old. It needs a revisit and an updating in response to Africa’s new challenges and the Bank’s strategic response. The policy paper mixes high-level recommendations and policy proposals with extensive detail on what IWRM is and why it is important that the Bank apply it in its water-related activities. Information is scant on assignment of responsibilities and on how the Bank will organize itself to undertake the activities. No targets or monitoring indicators are included. In addition, new challenges have emerged since the policy paper was written that have a substantial impact on managing water resources in Africa and that will influence future Bank policies and strategies. Among them are climate change, food security, rapid urbanization, increasing use of water for households and industry, and regional cooperation in transboundary basin management. The Bank policy needs to take these issues into account.
3. **HAS THE VOLUME OF THE BANK’S PORTFOLIO REFLECTED ITS COMMITMENT TO IWRM?**

**a) Has the Bank’s commitment to IWRM been matched by increasing resources for the water sector?**

The Bank’s portfolio has grown substantially since the IWRM policy was introduced in 2000. Water’s share in the Bank’s portfolio of loans and grants rose from 7.8 percent over 1967–1999 to 9 percent over 2000–2010 (11 percent in 2007–2010). Over 2000–2010, the portfolio comprised 167 investment projects and 48 technical assistance projects, amounting to UA 3,116.27 million. In addition, the Bank approved 66 projects, at Euro 78.67 million (UA 67.47 million) under the African Water Facility (AWF). The average size of water operations over 2000–2010 was about UA 13.76 million for ADF-funded operations and UA 43.65 million for AfDB-funded operations, more than double the size over 1967–1999 (UA 4.97 million for ADF and UA 19.5 million for AfDB).

The Bank has increasingly diversified its water portfolio toward more operations in water resources management, including rivers and lakes, in recent years. Over 2000–2010, water supply and sanitation accounted for about two-thirds of the water portfolio (figure 3.1). The rest of the portfolio was split among water and land, mainly irrigation (14 percent); hydropower (5 percent); and water and the environment (15 percent), covering water sector adjustment, watershed management, rivers and lakes, and fisheries, which is a new welcome feature of the water portfolio during the last decade.

**b) What is the geographic distribution of the Bank’s water portfolio?**

ADF was the major driver of the portfolio, followed by AfDB. The bulk of financing for water-related operations came from ADF (68 percent) and AfDB (28 percent). Additional resources came from the Rural Water Supply and Sanitation Initiative (2 percent), Fragile States Facility grant (1 percent), and the Nigeria Trust Fund (1 percent). AWF portfolio was about 2 percent of the total water portfolio and the WPP about 1 percent.

3.3 ADF was the major driver of the portfolio, followed by AfDB. The bulk of financing for water-related operations came from ADF (68 percent) and AfDB (28 percent). Additional resources came from the Rural Water Supply and Sanitation Initiative (2 percent), Fragile States Facility grant (1 percent), and the Nigeria Trust Fund (1 percent). AWF portfolio was about 2 percent of the total water portfolio and the WPP about 1 percent.

3.4 The water portfolio consisted of operations in 44 countries in the five Bank regions, including water-stressed and fragile RMCs. Three regions received the bulk of water-related assistance by loan and grant value (78 percent): 29 percent to East Africa, 25 percent to North Africa, and 24 percent to West Africa. The Central and Southern regions received about 9 percent each. Of the total value of approved projects, 62 percent went to lower income countries, 31 percent to lower-middle income countries, and 2.6 percent to upper-middle income countries. The top 10 borrowers and recipients accounted for 61 percent.

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11 Of the 66 projects, 18 were related to IWRM – 11 national and 7 transboundary. See 2010 Annual Report. Also see Section 5 and Appendix 5 and www.africanwaterfacility.org.
of the water portfolio, with Morocco, Uganda, Tanzania, Kenya, and Mali the top 5. The Bank had 44 water-related operations in 16 of 20 fragile states, totaling UA 361 million, and engaged in water-related active in 29 of the 35 water-stressed African countries.

3.5 Multinational projects (for transboundary water resources management) accounted for only 4 percent of the Bank’s water-related approvals over 2000–2010. The Bank has a mandate to promote regional economic cooperation in Africa and to support the Africa Water Vision and the Bank’s IWRM policy on transboundary water resources management (box 3.1). Yet Bank support remains modest for multinational projects in water resources management, environmental conservation, and hydropower generation in major river and lake basins. Multinational/transboundary operations accounted for 17 of 215 operations (7.9 percent), at UA 141.45 million (4 percent of water-related approvals).

c) What instruments has the Bank used to support IWRM in RMCs?

3.6 The Bank took a number of key actions to implement the IWRM policy. Project-based financing dominated all other instruments for water-related operations over 2000–2010. The Bank undertook a number of key actions and made strategic statements in relation to the IWRM policy implementation (see appendix 4 for the list). Of financing instruments, 90 percent were project-based, 6 percent policy-based (one
Box 3.1. The Bank’s Support to Transboundary Basin Management in Africa:

Hydrological, social, economic and environmental interdependences prevail at catchment areas of rivers, lakes, and aquifers. In Africa there are about 80 international rivers and lakes and 38 transboundary aquifers. Transboundary river basin management (TRBM), which is a subset of the IWRM concept in water resources management, can contribute significantly to peace and prosperity between countries or regions by bringing people and policy makers together to talk about the water resources, thereby often opening the door for discussions on other development issues. This has gained in importance through the increased awareness of the impacts of climate change on development and natural resource management. Besides adaptation strategies, climate change mitigation measures can be developed within a river basin through joint and coordinated (re)forestation and wetland management.

As a multilateral development bank for Africa, the Bank is well positioned for providing support to TRBM and it has actively supported various TRBM projects with focus on both the institutional level of the river basin organizations as well as on the economic development of the riparian countries. Its portfolio has a mix of infrastructure development, rural development, capacity building, and planning projects for water resource management (see box 4.1). This experience and the growing relevance of TRBM and IWRM indicate a great opportunity for the Bank to scale up its transboundary basin management operations to further support TRBM/IWRM in the region in a more strategic and sustainable manner.


loan to Morocco), 2 percent each technical assistance and Rural Water Supply and Sanitation Initiative (RWSSI) special funds, and 1 percent Fragile States Facility. The RWSSI special fund, which represents about 10 percent of total RWSSI financing at the Bank, has played an important role in strengthening the management and enhancing the achievements of RWSSI, and in leveraging additional resources to the Initiative from the Bank and other donors. The RWSS projects often had embedded some elements of IWRM principles such as support to decentralization, empowerment of local government and local communities, increased role of women, cross-sectoral approach (water, health, education), and local capacity building (e.g. Uganda).

3.7 The policy review and case studies conducted for the evaluation indicate the importance of it easier for governments to prioritize RWSS. During 2007–2010, it funded UA 73.63 million, the Bank UA 230.6 million, and the total project cost was UA 736.64 million (see the RWSSI Business Plan 2012 for further details).
sector-based approaches for IWRM. Over 2000–2010, the Bank provided a single-sector budget support loan to Morocco. More recently, the Bank participated with development partners in a budget support loan for rural water supply and sanitation in Uganda, in which the central government leads but local governments implement the projects. SWAps require a more programmatic approach but still allow for project financing. The Bank’s ongoing decentralization of its operational activities to field offices is facilitating Bank participation in such modalities, which require appropriate delegation of authority to country-based staff to represent the Bank in in-country partnership meetings and program administration.

3.8 Particularly using AWF and WPP resources, the Bank engaged in economic and sector work and knowledge sharing to support its water operations and help RMCs understand and apply IWRM approaches in recent years. Although the policy paper envisaged that the Bank would conduct substantial analytical work and knowledge sharing, the evaluation found that it had not done enough. Analytical economic and sector work can inform the country strategy process, improve strategizing and positioning for country assistance, and support RMCs in adopting and implementing IWRM. The information generated by such analyses can also enlighten discussions among water partnership groups and dialogue with governments and other development partners. The WPP supported several IWRM outreach and awareness activities and also published two useful publications on water governance and

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**Box 3.2 Water Partnership Program**

The Water Partnership Program (WPP) was established in 2002 with support from the Netherlands (Euro 3.4 million). In 2006 it was renamed as multi donor WPP with additional support from Canada (CAD 5 million) and Denmark (DK 15 million). The Netherlands component closed in 2010. The main goal of the WPP was to promote IWRM, and support implementation of the IWRM policy. The WPP was instrumental in the establishment of various initiatives in water operations at the Bank, including RWSSI, AWF and AgWa. It also supported the preparation of the World Water Forum, Africa Position Paper, and Water Weeks. It has published various reports, guidelines and handbooks for knowledge dissemination. Very recently, the Bank has carried out an assessment of the WPP and its new strategic focus is being discussed.

Source: Compiled from WPP annual reports and information obtained from OWAS.

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16 SWAps, sector investment programs, and sector budget support emerged in the 1990s as a response to weaknesses in the traditional project-based approach identified by donors and recipient governments in Africa to improve aid effectiveness. Water SWAps are underway in Benin, Burkina Faso, Ethiopia, Ghana, Kenya, Malawi, Mozambique, Senegal, South Africa, Tanzania, Uganda, and Zambia. Lately, the Bank has been a key player in supporting SWAps and national programs for rural water supply and sanitation (e.g., Uganda). It also has recently undertaken a study of SWAps in the water sector (2011).

17 The World Bank has recently started preparing Country Water Resources Assistance Strategies, which run for three years, alongside the Country Assistance Strategies and Poverty Reduction Strategy Papers, to guide its involvement in the sector in each country.
cost recovery. AWF-funded activities included such IWRM knowledge sharing activities as workshops in Mombasa (2006), and Tripoli (2007), a transboundary infrastructure development study, and publications such as country status overview of water-related MDGs of 16 African countries, and pan-African water sector M&E assessment (see also section 3.1 and appendix 5).

3.9 The Bank’s water operations have contributed modestly to institutional capacity building in RMCs. Institutional capacity building in RMCs was limited largely to the project management level, with some small capacity-building components in the projects but with very little at the sector and institution levels. Bank-approved stand-alone technical assistance grants for the water sector amounted to only UA 47.17 million over the evaluation period. One reason for the Bank’s limited involvement in capacity building is the lack of grant funding for technical assistance, since RMC governments do not generally borrow for analytical work or institutional strengthening. AWF supported some institutional capacity building activities (See appendix 5. )

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18. The Bank’s technical assistance (noninvestment) to RMCs was financed through an ADF grant (83.5 percent) and an ADB grant (16.5 percent).
4. HAVE THE IWRM PRINCIPLES BEEN IMPLEMENTED AT THE PROJECT LEVEL?

a) Have the IWRM principles been integrated in project design?

4.1 The Bank’s IWRM policy calls for integrating key principles into the design of water-related operations. In particular, it envisions that the policies and options guiding water resources management will be analyzed within a comprehensive framework; price will be used to signal and motivate efficient use and allocation of water and to ensure the economic and financial viability and sustainability of water projects (economic dimension); and water will be accessible to all on an equitable basis, regardless of gender or socioeconomic status, and that stakeholders will participate in decision making (social dimension).

4.2 The IWRM quality at entry review of a sample of Project Appraisal Reports found quality and compliance with IWRM policy principles to be satisfactory in project design but unsatisfactory in development and support for a comprehensive, cross-sector approach to water resources allocation and conservation.19 Quality at entry was better in domains with clear operational criteria and guidelines (e.g. environmental and social safeguards). Just 5 of the 40 reviewed projects explicitly addressed water resources management or conservation. A sixth one, Morocco’s Water Sector Adjustment Program, was the only sector level program based on a comprehensive IWRM approach. Most other projects referred to an integrated approach but limited to such components as water supply, sewerage, sanitation, and public health or to some IWRM principles such as cost recovery and sustainability of projects, even though their focus was sub-sectoral (water supply and sanitation, irrigation, hydropower).

4.3 The review also showed that the economic dimension received the least attention in the design of the sample projects. Projects generally included cost recovery for infrastructure operation and maintenance, but they rarely recognized water as an economic good with a cost bearing on water allocation, demand management, and resource protection (the “polluter pays” principle). The technical and environmental dimensions also received only moderate attention. In the technical dimension, handling competing uses of water and technologies for enhancing water-use efficiency received inadequate attention in project design. While environmental safeguards were in place, in accordance with Bank policy, sustainable use of water, water quality issues, and disaster risk management (droughts, floods) were not addressed.

4.4 Few projects explicitly addressed the regulatory and institutional framework for IWRM beyond the immediate needs for operation and maintenance of infrastructure. Developing institutional capacity was acknowledged as important and incorporated in all the projects, but the scope

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19 The review was conducted using an analytical framework of 36 questions covering all five IWRM policy dimensions (institutional, technical, economic, social, and environmental). It covered 27 water supply and sanitation projects, 5 agricultural/irrigation projects, 2 hydropower projects, 5 projects with a focus on water resources management/conservation, and 1 on water sector reform in 10 countries. See African Development Bank, Operations Evaluation Department 2011 IWRM Quality at Entry Review Working Paper, for further details.
and focus varied considerably, and few project resources were allocated to this dimension. Box 4.1 gives examples of emerging good practices in IWRM adaptation in the design of Bank-approved operations, as identified in the IWRM quality at entry review.

4.5 The trend in the IWRM quality at entry changed little over the evaluation period. There were only minor year-to-year fluctuations that should cause for neither alarm nor applause (as the annual sample of projects was small, with only a few projects in some years). Over the evaluation period, there was a clear growth in awareness of the need for project design to take into account the impact of climate change. More recent projects have included adaptation measures to cope with the expected effects of climate change, such

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**Box 4.1 Examples of IWRM Good Practice Identified in the Quality at Entry Review**

Two projects in Morocco demonstrate good practices in developing and implementing a comprehensive IWRM approach. The *Water Sector Adjustment Program* endorsed IWRM throughout the program, including cost recovery through water demand management and tariff schemes designed to recover full costs of projects. The *National Irrigation Water Saving Program* included water demand management based on adequate water pricing and water user involvement, as well as strong institutional capacity-building support to local stakeholders. Other projects also included good practices. In Cameroon, the *Rural Drinking Water Supply and Sanitation Project* supported a study on water resources and updates to the Directorate of Hydraulics and Hydrology database. The project was also linked to a global assessment of surface and groundwater resources.

All the multinational projects contained key elements of IWRM. For example, the *Project to Support the Lake Tanganyika Integrated Regional Development Program* introduced a package of activities for integrating management of the lake resources: establishing viable national and regional institutions for cooperation and integration; sustainably managing and enhancing fishery resources; improving water quality; promoting sustainable development initiatives in the basin; developing joint management measures for the lake at the regional level; establishing an integrated regional system for monitoring, information, and communication; and strengthening local, national, and regional institutional capacities. The *Lake Victoria Water Supply and Sanitation Program Phase II* and the *Lake Victoria Commission Water Supply and Sanitation Initiative* brought a balanced focus on water supply, sanitation, solid waste management, drainage, and physical planning. As integrated initiatives, they will enhance the health and well-being of populations in the secondary towns, while improving water quality in the lake. The Bank support (2004) to the Nile Basin Initiative was to contribute to capacity development for transboundary water resources planning and management.

Source: Compiled from IWRM Quality at Entry Review Working Paper, 2012, OPEV.
as increased climate variability and more frequent droughts and floods.

b) How has the Bank’s water portfolio performed?

4.6 The review of PCRs found that only about half the 32 completed projects received “satisfactory” ratings based on relevance, effectiveness, efficiency, and sustainability (table 4.1). In implementation as in design, key project components included elements of IWRM principles, but these were not fully integrated or comprehensive “cross-sectorally” and did not consider competing uses of water.

4.7 Implementing IWRM principles at the project level requires adhering to the five IWRM policy dimensions: institutional, technical, economic, social, and environmental (to achieve socially equitable, economically efficient and financially, institutionally and environmentally sustainable operations). Projects with satisfactory ratings had higher sustainability ratings than did the less successful projects. Projects generally had satisfactory ratings for stakeholder consultation, gender mainstreaming (to benefit women and girls), and environmental protection, though these objectives are driven by the Bank’s other corporate policies and safeguard measures as much as by IWRM principles. The connection with performance ratings was more uneven, however, for policy and institutional reforms dealing with the enabling environment, prices that cover at least operation and maintenance costs, adequate government budget provision for recurrent costs of the project, institutional capacity to manage the project, and efficient and sustainable use of water resources.

4.8 The reviewed projects had satisfactory relevance ratings for supporting RMC development objectives, but many had unsatisfactory ratings for project effectiveness and execution, leading to shortfalls in achieving expected outcomes. Of the projects with unsatisfactory ratings, 5 were in irrigation, 3 each in urban and rural water supply and sanitation, 3 in fisheries, and 1 each in hydropower, water resources management, and rivers and lakes. The unsuccessful ratings were tied to shortfalls in achieving outputs and outcomes (75 percent of cases), timeliness (69 percent), and unlikely sustainability of project outputs and outcomes (44 percent). On average, it took seven years to complete a project following approval, and about a third of projects took more than three years longer than expected.

4.9 Several projects failed to ensure cost recovery or government budgetary provision, threatening the continuity of their expected outputs and outcomes. Projects need to operate throughout their technical life to yield their intended development outcomes. The evaluation found that only 10 projects (about a third) estimated financial internal rates of return and that estimated

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20 Of the 16 projects with satisfactory ratings, 14 had satisfactory ratings for sustainability; only 7 of 16 projects with unsuccessful ratings did.

21 Loan effectiveness and project start-up take about two to three years; completing implementation takes another three to four years. An implementation delay of more than two years is considered unsatisfactory and of more than three years, highly unsatisfactory.

22 To assess the project sustainability issue, the related risks were examined from the perspectives of financial internal rates of return, provision of government budgets, institutional capacity development, and sustainable use of resources.

### Table 4.1 percentage of Projects with Satisfactory Rating by Subsector and Key Criteria (percent)

<table>
<thead>
<tr>
<th>Subsector (Number of PCRs Reviewed)</th>
<th>Relevance</th>
<th>Effectiveness in achieving outputs</th>
<th>Effectiveness in achieving outcomes</th>
<th>Efficiency (Timeliness)</th>
<th>Efficiency (Economic Returns)</th>
<th>Sustainability</th>
<th>Projects with Satisfactory Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irrigation (7)</td>
<td>100</td>
<td>71</td>
<td>57</td>
<td>43</td>
<td>14</td>
<td>43</td>
<td>43</td>
</tr>
<tr>
<td>Hydropower (2)</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>50</td>
<td>50</td>
<td>0</td>
<td>50</td>
</tr>
<tr>
<td>Urban WSS (5)</td>
<td>100</td>
<td>80</td>
<td>20</td>
<td>40</td>
<td>40</td>
<td>80</td>
<td>40</td>
</tr>
<tr>
<td>Rural WSS (9)</td>
<td>100</td>
<td>89</td>
<td>89</td>
<td>44</td>
<td>100</td>
<td>100</td>
<td>67</td>
</tr>
<tr>
<td>Water Resources Management (4)</td>
<td>100</td>
<td>100</td>
<td>75</td>
<td>75</td>
<td>NA</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>Rivers and Lakes (2)</td>
<td>100</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>0</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Fisheries (3)</td>
<td>100</td>
<td>67</td>
<td>67</td>
<td>0</td>
<td>100</td>
<td>67</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total (32)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>46</td>
</tr>
</tbody>
</table>

Source: Compiled from the Portfolio Review report, Chapter 5.

Returns were too low for 2 of them (Small Scale Irrigation Project in Zambia, 1.9 percent; Banbuna Hydroelectric Project in Sierra Leone, 0.17 percent). Only three projects included implied government assurances for financing recurrent expenditures (Manikoura Irrigation Project in Mali; Urban Sanitation Project in Dakar, Senegal; and Nile Basin Initiative Water Resources Project, multinational). There were no estimated financial internal rates of return for these projects. It may be noted that the Bank’s Urban Water and Sanitation projects have increasingly emphasized integrated tariff setting to cover operation and maintenance cost and gradually moving towards full cost recovery. The Bank has developed guidelines for user fees and cost recovery for rural and urban water supply projects based on findings of the cost recovery study.24 If adopted, they have potential to help address water pricing and cost recovery issues.

4.10 In 22 of 32 PCRs reviewed, inputs (training activities and equipment) were provided to government officials and local communities (including women) for institutional capacity development. But it was difficult to ascertain from the PCRs whether the institutional capacity had been adequately developed and had improved management of the projects’ operations and maintenance. (Table A3.4 in appendix 3 presents examples of institutional capacity development.)

Box 4.2 Lessons from Completed Irrigation Projects:

The most frequently cited lesson in irrigation projects is related to participatory approach in project design. First, it is essential to involve local level agencies and communities in all phases of project development and implementation. Second, participatory approach is often recommended but not always sufficiently detailed in project appraisal documents. It is therefore important to outline the participatory approach in sufficient detail so that its implementation can be easily facilitated. Third, formation of local level associations (users, farmers, other beneficiaries) is important. Fourth, local agencies, communities, and extension workers need to be adequately trained for developing their capacity to handle the operation and management of the facilities created by the projects and related farm level activities. Fifth, land acquisition can be arduous and time-consuming. It is important to understand and appreciate the role of traditional chiefs as well as local authorities at the outset of the project development and address the issue accordingly. Sixth, for irrigation projects, it is fundamental to have a component on environmental protection, comprising such activities as afforestation, dune fixation, and windbreaks. The project design should also include provision of access roads to the irrigation schemes, which also means beneficiary farms. The other important lesson is the use of monitoring and evaluation during the implementation as well as operation of the projects by the implementing agencies. This will, of course, require a provision of baseline data and regular updating. A project management unit established before signing the loan or grant agreement will greatly help in reducing the project start-up time as well as contributing to speeding up project implementation.

Source: OPEV Compilation of PCRs and PCRENs

4.11 Projects with unsatisfactory ratings were more likely than projects with satisfactory ratings not to have adhered to IWRM principles in their design and implementation. This was especially evident for projects that performed poorly on timeliness of project delivery, efficiency of resource use, and sustainability of outputs and outcomes. The key risks to project sustainability reported in the PCRs included shortfalls in local community capacity to manage project-created facilities, inadequate cost recovery or government budgetary provisions to finance recurrent expenditures, weak or absent extension services, and inadequate access to credit for farmers. Box 4.3 lists some of the lessons identified by the PCR review.

4.12 The country case studies found no major changes to the scope of the projects under implementation that were reviewed. Projects embraced IWRM principles, as they involved capacity building, institutional development, partnerships, and attention was paid to sustainability. However, the project components related to the IWRM are generally confined within the project itself without linking them to wider institutional capacities regulatory framework, and sector reforms (except for Morocco). The participative approach required substantial preparation and consultation with stakeholders and beneficiaries at the project onset, often more than what was planned at the appraisal
Box 4.3 Lessons from the review of PCRs

The review of 32 PCRs identified several key lessons and good practices:

- Full guidance on carrying out a participatory approach can facilitate project implementation, particularly in irrigation and fishery projects. Resolving land acquisition problems at the outset can reduce implementation delays.

- Cross-sector coordination at the Bank can improve synergy and project outcomes at the country level (for example, between water and electricity).

- Knowledge sharing and technical cooperation among RMCs is useful for the design and implementation of water sector projects.

- The Sector-Wide Approach is a useful modality for rural water supply and sanitation and for policy and institutional reform and capacity building for IWRM implementation as it pools together resources from various like-minded development partners and reduces the administrative burden on the recipient governments.

- Public-private partnerships are useful in water supply and sanitation projects, particularly where local conditions are taken into consideration and cost recovery is possible.

- Commitment and capacity of beneficiary communities and availability of spare parts are critical to the sustainability of rural water supply projects.

- Problems of capacity constraints and a lack of adequate financing undermine project sustainability and need to be resolved before projects end.

- Adherence to IWRM principles can improve overall project performance and sustainability, as implied by the PCR ratings.

Source: Compiled from IWRM Portfolio Review Working Paper, 2012, OPEV

4.13 There was no evidence of holistic or strategic approaches adopted at the sector or subsector level by the Bank in the case study countries. The review of project appraisal reports, as reported in section 3.2 and the review of the project completion reports of the recently completed projects, show when the Bank funded
water-related projects, they often addressed the key IWRM principles, such as social equity (benefitting women and girls, poor households), environmental sustainability (through safeguard measures), institutional sustainability (decentralization through the creation of users’ associations), and sustainability (through at least partial cost recovery for operation and maintenance, environmental safeguards, and capacity building).

4.14 The common key factors in the case study countries that can affect positively the adoption of the IWRM approach are: political commitments, water legislation, institutional capacity (skilled technical and managerial staff), water abundance or shortages, and the support by development partners to the IWRM implementation in the country. The Bank has played an important role as a project financier already, despite resource limitations (ADF allocation). Currently, the Bank (through its country office) chairs the water cooperating partners’ groups in Uganda and Zambia. The Bank’s active participation in donor coordination and cooperation is highly appreciated by the water-related officials of the governments and development partners in both countries. However, there was no economic and sector work undertaken in water-related areas in the case study countries, although it was not surprising due to the limited or lack of technical assistance resources. Some innovative and pilot projects were carried out under AWF initiatives.

Box 4.4 IWRM and Budget Support: The case of Morocco:

The policy-based lending by the Bank in water resources management in Morocco was a path-breaking experience in the implementation of integrated water resources management. However, a great number of conditions and under-estimated timeframe for the program implementation led to less than full implementation of the water sector adjustment. Earmarking for sector level budget allocation like in the case of a sector wide approach could have made the program more transparent and targeted. Lessons from other projects include: Bank supervision missions must always visit project sites to assess the progress in project implementation and likelihood of achieving intended project outputs and outcomes, effective monitoring is important to ensure timely implementation, and communication between the Bank and client government is important in overcoming challenges.

Source: Country Case Study Morocco
5. HOW EFFECTIVELY HAS THE BANK SUPPORTED ITS RMCs IN IMPLEMENTING IWRM AT POLICY AND INSTITUTIONAL LEVELS?

5.1 The IWRM policy commits the Bank to comprehensively support development and implementation of IWRM at the country level. The Bank has made modest achievement in these areas, particularly in institutional strengthening, integrated approach in water resources management and water storage, and making the water sector attractive to private investors in RMCs. The overall objective is “to promote an integrated approach in the management of water resources to achieve economic development and attain the goals of poverty reduction in the region” and to “rationalize and strengthen Bank Group interventions in the water sector and encourage borrowers, in accordance with the ADF-VII lending policy on water, to develop policies and undertake lending operations based on a comprehensive framework.” To help RMCs meet multiple challenges in the water sector, the IWRM policy paper expected the Bank to focus on (i) national policies that treat water as an economic good, (ii) legislations that reflect IWRM policy principles and provides adequate mechanisms for policy implementation, (iii) water-related knowledge and data for planning and monitoring, and (iv) institutional strengthening for more effective water resources management. To achieve these aims, the IWRM policy paper commits the Bank to help its RMCs balance social, economic, and environmental demands for water; improve water supply by integrating surface and groundwater development; invest in facilities for water capture, storage, transmission, and disposal; improve the performance of institutions with responsibilities for water; make water more attractive to private investors, in part by promoting equitable cost-recovery measures; and integrate environmental and social analysis into water strategy and assistance programs.

5.2 The Bank supported RMCs at national policy and institutional levels in implementing IWRM but in a very limited manner. As described in section 3, the Bank’s statements of support for IWRM implementation were not matched by commensurate assistance and financial resources. Most Bank assistance remains focused at the project level; little has been done to support countries at the macro (national or sector) level. The Bank had no direct lending or grant assistance to IWRM implementation in RMCs over the 2000–2010 evaluation period, except for a program loan to support water sector adjustment in Morocco. Elsewhere, Bank assistance was limited to financing provincial water supply and sanitation projects, national rural water supply programs, some irrigation and livelihood projects, and to less extent, multinational projects related to water resources management in river and lake basin organizations.

5.3 Nevertheless, under Bank administration and governance by the African Ministerial Conference on Water (AMCOW), AWF funded 11 national
and 7 multinational (transboundary) level projects for IWRM plan preparation and transboundary WRM related activities during the evaluation period. But there was no connection to country strategies for a follow-through by the Bank. AWF projects are outside the CSP process. Nonetheless, the AWF continues to support IWRM implementation-related projects. Currently, as per OWAS, there are 25 such projects (box 5.1).

5.4 The IWRM policy anticipated that CSPs would define the IWRM approach at the country level, but they did not do so. CSPs were expected to consider country specific needs and related demand and find necessary interventions. The policy envisaged that challenges and solutions to water management would be identified through policy dialogue, economic and sector work, technical assistance, and national Environmental Action Plans; that a reform action plan would be drawn up to guide water sector operations; and that any proposed solutions involving a project or program would be considered during

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Box 5.1 African Water Facility

Established in 2004 and operationalized in 2006, the African Water Facility (AWF) is an African continent-wide response led by the African Ministers’ Council on Water to implement, amongst others, the African Water Vision through the effective implementation of Integrated Water Resources Management (IWRM). AWF’s main purpose is to finance project preparation activities to leverage further investment into the sector. Since 2006 AWF has mobilized about Euro 160 million from donors, and on average, each euro contributed by the AWF in project financing has attracted 20 more in additional follow-up investments. So far, the AWF’s completed project preparation activities have mobilized Euro 53 million. The Bank regards the AWF as an instrument designed to assist in the implementation of its IWRM Policy, as well as its ongoing program in the water sector. The AWF portfolio on IWRM projects currently totals 25 projects valued at about Euro 30 million, (UA 25.7 million) representing about 40 percent of the AWF portfolio. The overall objective of these IWRM-related projects is to provide support to RMCs to improve or establish IWRM principles and practices at local, national, and transboundary levels. This is achieved through the development of comprehensive policies and strategies, legislative and regulatory frameworks, institutional arrangements and capacity building, and effective planning and implementation processes. At the regional level, the IWRM projects strengthen inter- and intra-basin cooperation and coordination. Attention is also given to enable countries to understand the impact of climate change and variability on water resources management, and to support the development of strategies on green growth and water security. The AWF’s strategic plan (2012–2016) focuses on (i) preparation of investment projects, (ii) enhancement of water governance, and (iii) promotion of water knowledge.

Source: Compiled from annual reports and information provided by OWAS. See also appendix 5, and for further details visit www.africanwaterfacility.org.

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25 The total funding was small (UA 11.62 million projects). For further details, see African Water Facility, 2010 Annual Report, Annex 2, 2011, African Development Bank, Tunis.
CSP preparation. The policy paper specifies that the Bank will use CSPs as a basis for dialogue with RMCs to encourage IWRM; help countries develop IWRM policies by providing financing from the Technical Assistance Fund; and give priority to projects that advance national IWRM policies.

5.5 The quality at entry review of 40 CSPs found no evidence of the envisaged links between CSPs and water-related assistance. CSPs do not appear to have guided dialogue with the RMCs to have provided the framework for aligning the water project portfolio with a wider assistance strategy, including identifying links with other sectors or objectives, such as water supply and sanitation, agriculture, energy, poverty reduction, and economic development. As a consequence, Bank projects—though well designed in integrating IWRM principles and adopting an integrated approach—are not usually embedded in a comprehensive, cross-sector IWRM approach for water resources allocation and conservation. The key reasons for the gaps in the CSP process were understood to have been related to the lack of (i) interdepartmental coordination, (ii) full awareness of the IWRM policy, and (iii) guidance and instructions to the staff. Box 5.2 summarizes RMC perceptions of the Bank’s engagement in IWRM drawn from the four country case studies.

5.6 The evaluation also found that the water-related projects approved over 2000–2010 included to a satisfactory degree IWRM principles in their design and implementation but did not fully embrace IWRM because of the holistic or strategic approach taken. The evaluation found little evidence of any water sector assessments or of water-related economic and sector work intended to inform the CSP process and project design. And it found no link between the Bank’s IWRM policy and national environmental action plans.

5.7 The Bank has not developed a holistic cross-sectoral approach in IWRM and this has prevented it from supporting RMCs in the development and implementation of IWRM agenda at country level. This has happened although the RMCs have decided to move forward with IWRM. There are a number of possible reasons for the apparent lack of strategic and program support from the Bank. At the RMC level, principal reasons are government preferences, limited ADF resources, and other donor partners’ involvement. At the Bank level, the key reasons include: (i) the CSP process was not inclusive in implementing IWRM policy and related support, despite the intention of the Bank’s IWRM policy, as well as the subsequent multiyear corporate strategy (2003-2007) and the medium term strategy (2008-2012); (ii) the lack of appropriate guidelines and instructions; and (iii) the lack of coordination across departments and complexes at the Bank’s headquarters.

5.8 Second, the Bank’s contribution was to act merely as a project financier for water-related projects in RMCs, which is appreciated by the recipient countries. But there are also increasing demands by the RMCs to expand the Bank’s role and contribution towards institutional areas

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26 It is also noted that the changes made in recent years in the CSP structure and process, prevalence of many competing paradigms, and increased emphasis on selectivity in choosing sectors may also have led to the inadequate or absence of IWRM issues discussed and addressed in the CSPs.
for supporting IWRM implementation. There are also many donor partners engaged in the water-related projects, which means that the Bank should carefully assess the water sector challenges and opportunities in RMCs and position itself more strategically to be able to add value and maximize development impact of its water-related interventions.

5.9 The record of the Bank is relatively better in integrating IWRM principles at project level, although some of them are driven by various corporate guidelines and safeguard measures. Evidence that has emerged from the project completion reports show that the projects which have incorporated IWRM principles in their design and implementation have also achieved better performance scores.

Box 5.2 RMC perceptions of the Bank’s engagement in IWRM implementation

Stakeholder interviews for the four country case studies (Morocco, Senegal, Uganda, and Zambia) on the Bank’s part in IWRM development and implementation revealed appreciation for the Bank’s project financing along with increasing demands by RMCs for more Bank involvement in institutional support for IWRM implementation and investment in water storage structures.

Government officials and development partners in water-related sectors value the Bank’s active participation in donor coordination and cooperation. And the Bank’s intellectual contributions to the water sector increased in later years as it chaired or co-chaired water sector partnership groups, activities made easier by decentralization and the posting of water specialists to country offices (Uganda and Zambia). Government officials noted that their experience with the Bank has been good but that the Bank could do more by providing lending assistance for water resources management and water storage structures (for example, IWRM implementation in Senegal and multipurpose dams in Zambia) and by engaging in economic and sector work to inform IWRM implementation (guidelines/toolkit for small to medium-size dam management, catchment management). Officials also reported that they were not explicitly aware of the Bank’s IWRM policy, a sign of the failure to convey the Bank’s commitment to IWRM.

Source: Compiled from Country Case Studies Consolidated Report, 2012. OPEV.
6. HAVE THE BANK’S BUSINESS PROCESSES AND INSTITUTIONAL STRUCTURES CONTRIBUTED TO IWRM POLICY IMPLEMENTATION?

6.1 The IWRM policy paper commits the Bank to establish adequate internal capacity to implement IWRM, but little has been achieved. The policy envisages the following key steps:

- Identifying a water resources management focal point to lead implementation of the IWRM concept in the Bank’s water operations. The Water and Sanitation Department (OWAS) was established to coordinate water-related operations and the mainstreaming of IWRM policy, but OWAS has made little difference. OWAS is perceived as having lead responsibility for delivering the IWRM policy even though water is a policy issue for three sectoral departments (OSAN and ONEC, in addition to OWAS) and, to some extent, for OPSM as well. As a sectoral department itself, OWAS cannot effectively influence other sectoral departments or the Bank-wide allocation of financial and human resources needed to mainstream IWRM policy in water operations. OWAS also has other responsibilities such as administering WPP and AWF operations. Other multilateral development banks have opted for different structures (box 6.1).
Box 6.1 Institutional structures for water operations at other multilateral development banks

**World Bank.** The World Bank is organized into five “network” vice-presidencies that house sectoral and technical expertise and that use a matrix management system, similar to that used at the African Development Bank. The Sustainable Development Network (SDN) has six “anchor” departments; one of them, the Transport, Water, and Information and Communication Technology Department, has a Water Anchor unit. Each network also includes six regional departments, which house the technical and sectoral expertise provided to country programs. The regional team complements the Water Resources Management Group, which was created to improve coordination among World Bank units that work on water. This unit strengthened the links between the lead policy department and the regional staff programs and between the vice-presidents for Environmentally and Socially Sustainable Development and Private Sector and Infrastructure. In 2011 the World Bank established the Water Expert Team by merging expert support teams in the Water Anchor.

**Asian Development Bank.** In the Asian Development Bank, water-related operations are organized under its five regional departments. A central department for Regional and Sustainable Development handles the water partnership funds and activities (studies, conferences, pilot projects) and related social and environmental safeguards. It also facilitates the Bank-wide community of practice in water-related activities. Occasional conflicts in coordination are handled by the heads of the regional departments and vice-presidents for operations. An operational strategy and a country strategy paper process guide the Bank-wide coordination of water policy and related engagements in developing country members.

*Source: Compiled by the evaluation team.*

- Creating a multidisciplinary task force to oversee IWRM implementation. The task force was never established, though discussions continue.
- Allocating Bank staff time to process and supervise water projects. The evaluation could not assess this part of the IWRM policy because the information management system does not distinguish staff time by activity.
- Formulating detailed water project appraisal checklists and guidelines for the Bank’s water specialists. Guidelines on water governance and user fees were published in 2010 with support from the WPP; no other major guidelines have been prepared.
- Conducting a biennial review of IWRM policy implementation by the Bank. No evidence was found of any biennial reviews.
• Assigning high priority to projects implementing IWRM. The quality at entry review found no evidence of this. The trend remained virtually unchanged over the evaluation period.

6.2 ONEC has a very important role in water for energy, environmental management, and climate change, while OSAN has responsibility for agricultural water use and natural resources management, and OWAS for drinking water supply and sanitation. ONRI is responsible for regional integration support. AWF has already made important contribution to IWRM implementation. Potentially the Infrastructure Consortium for Africa (ICA) water platform, which includes NEPAD, IPPF, and PIDA, can support project feasibility studies for transboundary water resources management and hence can contribute to IWRM policy implementation. But these departments and initiatives operate alone. Their operations need to be better coordinated across the Bank and across RMCs through the CSP process as envisaged in the IWRM Policy paper.

6.3 The Bank’s business processes and organizational structures are not well suited to delivering a comprehensive, integrated, and cross-sector IWRM approach. Several contributing factors were identified in interviews and desk reviews conducted under the policy review component of the evaluation: a lack of collaboration on water projects among sectoral departments, which operate vertically; incentives for sectoral departments to capture their share of country allocation, resulting in a CSP-driven by projects rather than by a water resources management strategy; weak incentives for designing joint projects or developing a program to support the water sector as a whole to maximize development impact; little capacity for engaging on the broader issues of IWRM; engineering/infrastructure backgrounds that ill-equip many water-related professional staff and managers to deal with the institutional and public policy issues for implementing IWRM; and limited learning and knowledge-sharing opportunities in the Bank for needed retraining.
7. CONCLUSIONS AND RECOMMENDATIONS

a) Conclusions

7.1 Many African countries are changing their water policy and related laws with a view to mainstreaming IWRM in water-related sectors. But the task is daunting, requiring knowledge, expertise, competent institutions, and processes that can shape decisions for managing a limited resource with competing uses like water. IWRM requires political will and commitment, an appropriate legislative and regulatory framework, and adequate institutional capacity and financial resources. Rising demographic pressures in Africa, growing demand for water by the manufacturing and mining sectors in addition to agriculture and livestock, need to manage transboundary basins better, and the challenges raised by climate change all make IWRM even more important today than it was when the Bank released its IWRM policy in 2000.

7.2 IWRM also remains fundamentally relevant for the Bank, with its sharpened focus on inclusive and green growth. In preparation for the 2011 United Nations Climate Change Conference in Durban, the Bank elucidated the role of IWRM in increasing resilience to climate change. Planning for adaptation requires a fuller understanding of the availability of water resources and of the need for water for people and for the environment today and tomorrow. The Bank’s role in regional integration, through its support for transboundary water resources management, also links IWRM and the Bank’s strategic goals. While the core of the IWRM policy for water resources management is solid, it requires updating to remain relevant to Africa’s new challenges and the Bank’s new strategic orientation.

7.3 Over 2000–2010, the Bank substantially increased its assistance to the water sector and worked to incorporate IWRM principles in its operations, with an increasing degree of diversification in the water-related portfolio. The Bank’s portfolio increased significantly but remains concentrated in water supply and sanitation, while other areas such as water catchment protection, 27It is noticed that ONRI is increasingly more active lately with respect to transboundary water resources management.
water resources management, improving economic returns, health outcomes, and reducing risks to sustainability are underserved. The AWF has allowed the Bank to support RMCs in IWRM implementation at national and also transboundary levels, but these initiatives have been limited in scope, small in assistance value, not guided by CSPs, and there is no clear strategy for follow-through or replication in other RMCs. The Bank’s support to transboundary/multinational projects has been small (4 percent) and there is no clear strategy to scale it up. The instruments used in Bank operations have been heavily project-based, with just one or two programmatic support operations. There were no water sector diagnostics undertaken and only a few analytical works have been conducted to inform the CSP process and support IWRM development and implementation.

7.4 At the project level, close to half the completed water-related projects received a satisfactory performance rating while the rest suffered from low effectiveness and low sustainability. Projects that fully incorporated IWRM in their design tended to achieve better results, though there are not enough data to generalize across the entire portfolio. The performance of about half of the recently completed projects had less than satisfactory ratings. There is need to address issues of project effectiveness, efficiency, and economic and environment sustainability through policy dialogue with client governments to ensure necessary resources and more effective management and by systematically adopting the lessons identified by PCRs and evaluation reports to improve the design and implementation of water sector projects.

7.5 The Bank supported RMCs in implementing IWRM but in a very limited manner. The Bank cannot have an effective and sustainable water portfolio unless its RMCs reform their regulatory and legislative frameworks and strengthen their water management institutions (see also paragraph [iii] above). The case studies show that the recent opening of field offices has allowed the Bank to become more active in policy dialogue and even to chair some donor water groups. These contributions, which seem to be appreciated by governments, demonstrate the possibilities for a more decisive engagement in IWRM at the macro level.

7.6 The Bank has not developed a detailed plan for implementing its IWRM policy nor installed the envisioned coordination mechanisms for ensuring a Bank-wide approach to water management. Establishing OWAS as a focal point for internal coordination was a step in the right direction, but OWAS was not assigned adequate authority or resources. The lack of incentives for other departments to collaborate meant that implementing IWRM depended on the initiative of individual staff members and their shared interests. Many other enabling measures were also omitted, including establishing a task force and preparing guidelines.

7.7 The evaluation identified several issues and challenges that impeded the Bank in moving from a piecemeal approach to a systematic approach for implementing IWRM:

- The Bank’s institutional structure and mechanisms are not effective for implementing its IWRM policy. The institutional structures

28 See paragraph 6.2 page 25.
do not create incentives for collaboration among departments or facilitate the development of a shared vision and ownership on IWRM across the Bank.

- Contrary to IWRM policy intentions, the CSP process does not encourage discussion of the Bank's strategic role in supporting its RMCs in implementing IWRM and treating water as a scarce resource. As a consequence, the Bank's role is driven by subsector portfolios, with little support to RMCs at the institutional or regulatory level, and its strategic position in the RMC and among development partners in the water sector is unclear. Some relevant Bank instruments have not been used to support IWRM at the country level such as SWAPs, sector budget sector support, or policy-based lending. The Bank could better support RMCs in building and implementing a sound legislative, regulatory, and institutional framework for IWRM if it used grant resources to conduct analytical economic and sector work. In some countries, programmatic approaches might also be more appropriate than the traditional project financing approach.

- The Bank lacks sufficient in-house capacity, structures, and incentives for implementing the IWRM policy and improving the development results of its water-related operations in general. More needs to be done to understand and address the problems of poor performance in the water sector.

7.8 The ambitious vision of the Bank's IWRM policy has been only partially realized. Most of the problems that the Bank IWRM policy was meant to resolve persist. They include poor planning and lack of attention to institutional issues; weak cost-recovery and low sustainability; inadequate legislation governing water management and weak mechanisms to resolve conflicts over competing uses of water; and a fragmented approach that concentrates on short-term project identification, approval for financing, and implementation of individual projects without confronting the economic, institutional, social, and environmental dimensions in an integrated manner.

7.9 The Bank is not alone in grappling with the challenge of supporting IWRM, but that does not mean that it cannot do more. The positive response of RMCs to the Bank's engagement with water groups at the country level shows that the demand exists in RMCs. Moreover IWRM supports the Bank's strategic objectives of inclusive and green growth and regional cooperation to meet Africa's challenges. However, revising the IWRM policy alone will contribute very little in achieving the intended goals, if the enabling conditions in the Bank for the implementation of this policy do not exist.

b) Recommendations

7.10 Seven recommendations emerge from this evaluation.

1. The Bank should update its IWRM policy and develop a more focused and concise policy paper clearly stating its priorities in the water sector, covering rural, urban and multinational/transboundary level operations and how an IWRM approach would support the Bank's strategic orientation toward
water for inclusive and green growth and acknowledge water-related challenges such as climate change mitigation and adaptation, urbanization, industrialization, and regional cooperation.

2. In order to guide the implementation of the policy, the Bank should (i) deepen its approach to cost recovery, by engaging also in strategic policy dialogue with government authorities on this issue; (ii) scale up its support to institutional capacity for IWRM implementation; and (iii) increase its support and approach to transboundary river and lake basin management.29

3. The Bank should adapt resources and the instruments, institutional structures/mechanisms and business processes to the policy goals by:

(i) Providing more grant resources to fund analytical work and capacity-building for RMCs and making greater use of programmatic approaches in its lending and grant assistance.

(ii) Making its institutional mechanisms more enabling for implementing the policy through increased Bank-wide coordination, collaboration and results monitoring. For example, the Bank should consider the establishment of a cross-departmental group of Senior Water Experts from OWAS, OSAN, ONEC, OPSM and OSHD. This group would systematically review new sector policies and strategies for water, CSPs, and water-related projects for incorporating IWRM or any other project that may require significant use of water resources at country level. The results of this review could then be communicated to the OpsCom. This group would also be responsible for approving implementation guidelines, fostering knowledge events in the Bank, and coordinating the Bank’s position in international conferences. A panel of external water experts could initially support the group.

4. The Bank should develop and implement a corporate-level, medium-term operational strategy for IWRM policy implementation and water-related operations in general. This would be one of the major responsibilities of the interdepartmental coordination group. Measures to support implementation of the IWRM policy should be integrated into a corporate-level operational strategy, bringing together strategies and business plans of all the relevant departments, with a clear business plan detailing key tasks and intended outcomes, the required resources, and monitoring and reporting mechanisms throughout the Bank. Also, donors and shareholders should be invited to provide dedicated resources for IWRM implementation. Monitoring IWRM policy implementation and periodic public reporting

29 OPEV’s short paper on Transboundary River Management (2013) recommends for streamlining Bank’s interventions in TRBM for not only climate change adaptation but also for climate change mitigation with joint and coordinated efforts for deforestation and wetlands management for sustainable development, involving TA, capacity building, and CSO participation.
on progress would enhance transparency, accountability, and public awareness of the Bank’s work in water-related assistance to RMCs.

5. The CSP process of the Bank should be strengthened and used to inform strategic decisions at the country level and be supported by robust water sector diagnostics and other related analytical work. It needs to incorporate water sector diagnostics/assessments, discussion of the Bank’s strategy in water resource management at country and sub-regional levels where appropriate and allocation of resources in accordance with the strategic rationale for the Bank’s involvement. The water assessment should also inform the choice of instruments to best meet the needs of each RMC.

6. Bank operations administered by AFW, WPP, and RWSSI (as well as similar initiatives administered by ICA, NEPAD, and PIDA) should also be strategically aligned under the CSP following the ‘One Bank’ approach. This approach could be piloted in a few countries, starting with RMCs where the Bank has already supported IWRM-related activities. It should then fine-tune the approach for implementation in other RMCs.

7. The Bank should improve its internal capacities, IWRM knowledge sharing, and incentives and consider a wide range of additional measures to support its IWRM policy implementation, enhance development results and sustainability of the Bank-funded water-related operations, and transform itself into a lead development partner as well as a knowledge bank for the water sector in Africa. In this regard, the Bank should:

(i) Consider strengthening internal capacities and skills by providing regular learning events to all staff involved in water-related operations.

(ii) Develop and implement a community of practice for water-related operations that brings together water experts from water-related departments at headquarters and field offices for sharing IWRM knowledge in the Bank and in RMCs. This measure would also be useful to address the causes of the weak performance of the Bank-funded projects. Networking with international water institutes, river-based organizations, and multilateral institutions would provide state-of-the-art knowledge in IWRM.

(iii) Streamline project preparation and ensure proper attention to sustainability issues of the Bank-funded water-related operations (e.g. maintenance, pricing, costs recovery, demand management, environmental and enabling regulatory environment, local capacity development, and stakeholders’ involvement in project design and implementation.)

(iv) Formally recognize and reward Bank staff for their new ideas and excellence in water practices that improve development outcomes of the Bank-funded water-related operations.
Appendix 1. Method, Data, and Limitations

Method and data
The focus of the evaluation was on the integrated water resources management (IWRM) approach and its implementation by the Bank in partnership with regional member countries (RMCs). The evaluation also addressed whether the approach has contributed to sustainable results at the country and project levels. At the policy level, the method focused on relevance, effectiveness in implementing the policy, and emerging results and challenges. The project-level evaluation was guided by the standard development evaluation criteria that look at relevance, efficiency, effectiveness, and sustainability.

A database of all water-related investments (loans and grants) and technical assistance based on approved commitments by the Bank for 2000–2010 was constructed. It included data on water commitments across the Bank, covering the Water and Sanitation Department; the African Water Facility (AWF); the Department for Agriculture and Agro-Industry; the Department for Energy, Environment and Climate Change; the Private Sector Operations Department; the Operations Evaluation Department’s (OPEV) database on agriculture water operations (prepared for a recently completed evaluation study); and relevant project appraisal reports. Consultations with relevant Bank staff provided further information.

The selected water-related operations were further categorized and analyzed by several dimensions and characteristics, such as water and land (irrigation, hydropower, and groundwater), water supply and sanitation, and water and environment (rivers and lakes, fisheries, and land and water resources management in general).

The evaluation also collected and reviewed Project Completion Reports (PCRs), related project completion evaluation notes and project performance and thematic evaluation reports prepared by OPEV, project supervision reports, and other relevant documents for the period. A total of 32 PCRs (100 percent of the available PCRs, representing 21.3 percent in terms of value) for projects approved during the evaluation period were reviewed to report on performance results and to identify common findings and lessons from the reviews.

Limitations
Examination of the emerging results at the project level was limited to the 32 available PCRs. The IWRM quality at entry review was carried out on a sample of 40 Country Strategy Papers and 40 Project Appraisal Reports covering 10 RMCs—a mixture of large borrowers and middle-income, low-income, fragile, and water-stressed countries with a wide range of projects and programs funded by the African Development Bank, the African Development Fund, AWF, and the Rural Water Supply and Sanitation Initiative during the evaluation period. The sample represented about 67 percent of loans and grants value and about 60 percent of the number of interventions. The review was complemented by four country case studies (Morocco, Senegal, Uganda, and Zambia). Finally, this evaluation was not envisaged as a rigorous impact evaluation with counterfactual analysis.
Appendix 2. Internationally Recognized Principles for Integrated Water Resources Management

The Dublin Principles (1992)

1. Freshwater is a finite and vulnerable resource, essential to sustain life, development, and the environment.

2. Water development and management should be based on a participatory approach, involving users, planners, and policymakers at all levels.

3. Women play a central part in the provision, management, and safeguarding of water.

4. Water has an economic value in all its competing uses and should be recognized as an economic good.

Principle objectives of Chapter 18 UN Action Plan, Agenda 21, 1992

1. To promote a dynamic, interactive, iterative, and multisectoral approach to water resources management, including the identification and protection of potential sources of freshwater supply that integrates technological, socioeconomic, environmental, and human health considerations.

2. To plan for the sustainable and rational utilization, protection, conservation, and management of water resources based on community needs and priorities within the framework of national economic development policy.

3. To design, implement, and evaluate projects and programs that are both economically efficient and socially appropriate within clearly defined strategies, based on an approach of full public participation, including that of women, youth, indigenous people, and local communities, in water management policymaking and decision making.

4. To identify and strengthen or develop, as required, particularly in developing countries, the appropriate institutional, legal, and financial mechanisms to ensure that water policy and its implementation are a catalyst for sustainable social progress and economic growth.
### Appendix 3. Portfolio Review Results

#### Table A3.1 Water Portfolio by Source of Finance

<table>
<thead>
<tr>
<th>Fund</th>
<th>Amount (UA thousands)</th>
<th>Share of total (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>African Development Fund</td>
<td>2,132,923</td>
<td>68</td>
</tr>
<tr>
<td>African Development Bank</td>
<td>875,229</td>
<td>28</td>
</tr>
<tr>
<td>Rural Water Supply and Sanitation Initiative</td>
<td>61,070</td>
<td>2</td>
</tr>
<tr>
<td>Fragile States Facility grant</td>
<td>15,960</td>
<td>1</td>
</tr>
<tr>
<td>Nigerian Trust Fund</td>
<td>20,905</td>
<td>1</td>
</tr>
<tr>
<td>Others&lt;sup&gt;a&lt;/sup&gt;</td>
<td>10,184</td>
<td>0.19</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,116,271</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

<sup>a</sup> Includes Special Relief Fund, Middle-Income Countries Fund, and Technical Assistance Fund.

Source: Compiled by the evaluation team.

#### Table A3.2 Water Portfolio by Financing Instrument

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount (UA millions)</th>
<th>Number of operations</th>
<th>Share of Bank's total water investment (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project cycle loans and grants</td>
<td>2,789.59</td>
<td>153</td>
<td>90</td>
</tr>
<tr>
<td>Technical assistance</td>
<td>58.40</td>
<td>48</td>
<td>2</td>
</tr>
<tr>
<td>Policy-based loans</td>
<td>191.26</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Fragile State Facility</td>
<td>15.96</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Special funds for water: Rural Water Supply and Sanitation Initiative</td>
<td>61.07</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,116.28</strong></td>
<td><strong>215</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
Table A3.4 Summary of Key Components of Completed Projects

<table>
<thead>
<tr>
<th>Subsector/theme*</th>
<th>Key physical components</th>
<th>Key institutional components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irrigation (7)</td>
<td>Irrigation and drainage, dams, access roads</td>
<td>Village associations, women’s groups, rural development funds, capacity building, project management</td>
</tr>
<tr>
<td>Hydropower (2)</td>
<td>Rehabilitation of electricity and water supply systems, hydraulic steel structures, civil works</td>
<td>Awareness raising, resettlements, building managerial capacities</td>
</tr>
<tr>
<td>Urban water supply and Sanitation (5)</td>
<td>Intake structure, pumping stations, treatment plants, transfer pipes</td>
<td>Awareness programs, sanitation extension programs, studies, project management, capacity building</td>
</tr>
<tr>
<td>Rural water Supply and Sanitation (9)</td>
<td>Rural water and sanitation facilities, solid waste management, watershed management</td>
<td>Public education, capacity building, studies, project management</td>
</tr>
<tr>
<td>Water resources management (4)</td>
<td>Watershed development</td>
<td>Integrated water resources management by basin agencies, tariff regulations, public-private partnerships, capacity building</td>
</tr>
<tr>
<td>Rivers and lakes (2)</td>
<td>Regional master plan and institutional strengthening for Niger River, lake management plans, community development activities</td>
<td></td>
</tr>
<tr>
<td>Fisheries (3)</td>
<td>Construction of landing stations, frying stations</td>
<td>Credit funds, fish resource management</td>
</tr>
</tbody>
</table>

* Numbers in parentheses are the number of projects reviewed.
Source: Compiled by the evaluation team from Project Completion Reports.
### Table A3.5 Examples of Institutional Capacity Development in Sample Projects

<table>
<thead>
<tr>
<th>Project</th>
<th>Institutional capacity development results</th>
</tr>
</thead>
</table>
| Mali: Manikoura Irrigation Area Development          | • Farmers’ knowledge of irrigation management enhanced.  
**• Monitoring of project activities put in place.** |
| Mali: Rural Development Project                      | • Decentralized services capacity strengthened through equipment and training.  
**• Three self-managed village banks and 50 professional associations created.** |
| Tunisia: Gafsa Integrated Agriculture                | • Consolidation of participatory approach to natural resources management with the creation of 30 professional associations. |
| Rwanda: Electricity and Drinking Water               | • 10 technicians trained locally and 2 professional staff trained abroad.                                   |
| Tanzania: Dar Es Salaam Water                       | • Staff (1) trained and equipment (2) supplied.                                                            |
| Mozambique: Urban Water Supply and Sanitation        | • Increased billing and revenue collection efficiency through improved utility management.                  |
| Malawi: Integrated Water                            | • Sub-national and local capacity strengthened through training and supply of equipment and vehicles.        |
| Mozambique: Integrated Water                         | • Management systems and procedures improved and operationalized.                                          |
| Uganda: Rural Water                                 | • Capacity at central and local levels enhanced.  
**• Women trained as pump mechanics.**               |
| Uganda: Small Towns Water                           | • City councils’ and water authorities’ knowledge of handling the water supply and sanitation facilities increased through capacity building by the project and on-the-job experience. |
| Rwanda: Rural Water Supply                           | • Training provided to government officials, private sector, and nongovernmental organizations.             |
| Tanzania: Rural Water Supply                         | • Communities trained to operate and maintain facilities.                                                  |
| Guinea: Hydraulic Rural                              | • 1,184 water point management committees set up.  
**• 159 water officials trained.**                   |
| Democratic Republic of the Congo: Multisectoral Project | • Local communities and officials sensitized.                                                              |
| Multinational: Nile Basin Initiative Water Resources | • Contributed to some human, technical, and logistical capacity building.                                 |
| Multinational: Water Harvesting                      | • Guidelines developed.  
**• Training provided at the regional level.**                                                           |
<p>| Multinational: Water Harvesting                      | • Training programs developed and training conducted in four places.                                      |
| Gambia: Participatory Integrated Watershed Management| • Communities’ skills developed to manage the farming system.                                             |</p>
<table>
<thead>
<tr>
<th>Project</th>
<th>Institutional capacity development results</th>
</tr>
</thead>
</table>
| Niger: Fleuve Niger | • Autorité du Bassin du Niger Secretariat’s capacity enhanced.  
• Knowledge-sharing workshops on fighting desertification conducted. |
| Multinational: Lake Edward and Albert | • Capacity of project implementation unit and other stakeholders strengthened. |
| Guinea: Traditional Fishing | • 100 fish farmers and 22 fish farming extension workers trained. |
| Uganda: Fisheries Development | • 1,009 in-service staff and stakeholders trained.  
• Study tours conducted. |
| Sierra Leone: Artisanal Fisheries | • Communities acquired knowledge to write proposals to access credit and to use fish receiving stations. |

Source: Compiled by the evaluation team from Project Completion Reports.
Table A3.6 Summary of Key Reasons for Unsatisfactory Ratings

<table>
<thead>
<tr>
<th>Projects with unsatisfactory rating</th>
<th>Key reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mali: Manikoura Irrigation Area Development</td>
<td>Highly unsatisfactory project outcome, unsatisfactory timeliness, economic returns, and high risk to sustainability.</td>
</tr>
<tr>
<td>Zambia: Small Scale Irrigation</td>
<td>Highly unsatisfactory project outputs and outcomes and timeliness, returns, and high risk to sustainability.</td>
</tr>
<tr>
<td>Mali: Rural Development Project</td>
<td>Unsatisfactory project output, outcome, timeliness, returns, and sustainability.</td>
</tr>
<tr>
<td>Tunisia: Kesserine Integrated Agriculture</td>
<td>Unsatisfactory performance in timeliness and economic returns.</td>
</tr>
<tr>
<td>Rwanda: Electricity and Drinking Water</td>
<td>Unsatisfactory timeliness and high risk to sustainability.</td>
</tr>
<tr>
<td>Tanzania: Dar Es Salaam Water</td>
<td>Unsatisfactory project outcome and efficiency (timeliness, returns).</td>
</tr>
<tr>
<td>Mozambique: Urban Water</td>
<td>Unsatisfactory project outcome and timeliness.</td>
</tr>
<tr>
<td>Senegal: Urban Sanitation, Dakar</td>
<td>Unsatisfactory project output, outcomes, timeliness and returns, and sustainability.</td>
</tr>
<tr>
<td>Mozambique: Integrated Water</td>
<td>Unsatisfactory project outcome and very unsatisfactory timeliness.</td>
</tr>
<tr>
<td>Tanzania: Rural Water</td>
<td>Unsatisfactory project output and outcome.</td>
</tr>
<tr>
<td>Democratic Republic of the Congo: Multisectoral Project</td>
<td>Very unsatisfactory in timeliness.</td>
</tr>
<tr>
<td>Multinational: Water Harvesting Pilot Project</td>
<td>Unsatisfactory project outcome and very unsatisfactory timeliness.</td>
</tr>
<tr>
<td>Multinational: Lake Edward and Lake Albert</td>
<td>Unsatisfactory project output and outcome, highly unsatisfactory timeliness, and high risk to sustainability.</td>
</tr>
<tr>
<td>Guinea: Traditional Fishing</td>
<td>Unsatisfactory outcome and very unsatisfactory timeliness.</td>
</tr>
<tr>
<td>Uganda: Fisheries Development</td>
<td>Very unsatisfactory timeliness and high risk to sustainability.</td>
</tr>
<tr>
<td>Sierra Leone: Artisanal Fisheries</td>
<td>Unsatisfactory output and timeliness.</td>
</tr>
</tbody>
</table>

Source: Compiled by the evaluation team.

- Contributed to and facilitated the preparation of the Africa Water Vision 2025 in 2000 to provide a regional and strategic framework for guiding water resources development in Africa.
- Established the Water Partnership Program 2002–2006 to support the delivery of the integrated water resources management (IWRM) policy of the Bank and contribute to the implementation of the Africa Water Vision 2025 through outreach and capacity-building programs for Regional Member Countries (RMCs) and the Bank. Two useful guidelines—water governance and user fees—came out of the Water Partnership Program.
- Contributed to the establishment of the Conference of African Water Ministers in 2002 to provide political leadership, policy direction, and advocacy in the provision, use, and management of water resources in Africa. The conference governs the African Water Facility (AWF).
- Included efforts for improving water resource management, drawing on the IWRM policy paper as the starting point in the Bank’s multiyear strategic plan (2003–2007). But there were no significant results in terms of IWRM policy implementation.
- Developed the Rural Water Supply and Sanitation Initiative in 2003 to accelerate access to improved rural water supply and sanitation facilities in Africa.
- Established the AWF in 2004 and brought it into operation in 2006 to help African countries implement the Africa Water Vision and meet the Millennium Development Goals. The facility funded 12 projects supporting national IWRM-related activities and 7 projects focusing on transboundary water resources development during 2006–2010.
- Replenished the African Development Fund in 2004, with funds earmarked for the Rural Water Supply and Sanitation Initiative.
- Supported the Nile Basin Initiative in the sustainable development and management of the Nile waters by contributing $33.5 million and a task force to provide technical input.
- Developed the water and sanitation component of the New Partnership for Africa’s Development.
- Created the Water Supply and Sanitation Department in 2006 to serve also as a focal point for water-related operations, including the coordination of the AWF and the Water Partnership Program.
- The Bank’s Medium Term Strategy (2008–2012) envisaged support to RMCs in mainstreaming IWRM. Like the previous medium term strategy, it has not contributed to mainstreaming IWRM policy in the Bank’s water-related operations.
- Published a business plan for agricultural water development and water storage enhancement in 2010 through the Department of Agriculture and Agro-Industry that included multiple references to the IWRM policy and demonstrated significant awareness of IWRM issues.

Source: Compiled by the evaluation team. For further details see working paper on IWRM Policy Review, OPEV.
Appendix 5. A Representative Sample of IWRM Projects

Strengthening Water Sector Governance at National and Transboundary Levels:

- **Kenya**: Kibuon and Tende Rivers Watershed Integrated Management. To improve the productivity and viability of land use and water conservation systems by empowering the local communities and governmental organizations to institute a better management system for the Kibuon and Tende Rivers Basin.

- **Burkina Faso**: IWMR Decentralization Plan for Capacity Building. To build institutional capacity and improve performance for water resources control, regulation and use in the country to support implementation of Burkina’s IWRM plan.

- **Mauritania**: IWRM Plan and Land Use Plan Formulation Phase 1. To support the ongoing implementation of the current IWRM Plan and Land Use Plan and enhance implementation capacity.

- **Namibia**: IWRM Plan Formulation. To facilitate the preparation of an IWRM Plan for the sustainable use and management of water resources in Namibia.

- **Burundi/Rwanda**: Bugesera Transboundary IWRM Development and Conservation Project. To improve the conditions for transboundary water resource management in the Bugesera Region, through the development of IWRM and water conservation plans for the Rweru and Cyohoha lakes and the Akanyaru marsh.


Preparing Programs/Projects at National and Transboundary Level:

- **African Union Commission (AUC)**: Program for Infrastructure Development (PIDA) – Transboundary Water Resource Infrastructure Development Study. To put in place a strategic framework for regional and continental DWS infrastructure development and TWR infrastructure investment program.

Meeting Water Needs through Investments at Community Level:

- **Rwanda**: Pilot Project for introduction of Water Harvesting Techniques in Bugesera. To introduce rainwater harvesting techniques for agriculture, cattle and drinking water supply in rural districts of Rwanda.
• **Malawi**: Water Supply and Sanitation for Low Income Community Development. To contribute to improving the living conditions of Blantyre urban poor by demonstrating and stimulating interest in integrated urban development by combining water, sanitation, and housing for low-income earners.

• **Djibouti**: Water Harvesting for Water Supply and Agriculture in the Rural Districts of the Republic of Djibouti. To pilot innovative run-off water harvesting technologies for drinking water, irrigation and livestock uses in two rural districts.

**Improving Water Knowledge at Transboundary Level**

• Sahara and Sahel Observatory (OSS): IWRM of the Iullemeden and Taoudéni Aquifer Systems and Niger River Basin (GICRESAIT). To evaluate the water potential and define elements for monitoring all groundwater resources of the Iullemeden and Taoudéni Aquifer Systems and the Niger River.
Appendix 6. Lessons and Good Practices from Country Case Studies

In Morocco, the Water Law defining the legal and institutional framework for water management was the key in implementing integrated water resources management (IWRM). Formalizing the partnership and participation of stakeholders at all levels also contributed to progress in managing and preserving water resources. Having a holistic vision and reform strategy based on consensus was another good practice. An emerging good practice is water-saving in irrigation, with equitable distribution to farmers and preservation of water resources in a sustainable manner.

A good practice drawn from Senegal’s experience is its reform and involvement of the private sector in water supply services with Senegalaïse des Eaux. Private sector participation, through a leasing contract, has proved viable for effective service delivery and improved the government’s political commitment, transparency in contracting, and cost recovery. It has also led to checks and balances of power and responsibility among core water sector actors and to widespread dissemination of information. Public support has increased due to a sensitization and information campaign targeted at the public and delivered by public representatives (locally elected representatives and civil society).

In Uganda, preparing and disseminating a sector performance report by the government and development partners informed all stakeholders. Putting in place IWRM legislation, an institutional framework, and implementation plans were prerequisites in implementing IWRM. Interstate (transboundary) projects in water resources management under independent and specialized authorities—such as the Victoria Lake Basin under the East African Community and the Nile Basin under the Nile Basin Initiative—are better managed by specialized river or Lake Basin authorities, which can be focused and allow regular dialogue with other partner governments. A database for monitoring water supply was a very useful tool for informing stakeholders on the status of water interventions and ensuing service delivery and related planning process. A water sector–specific gender strategy mainstreamed gender in water-related operations and helped address opportunities for education and employment for women and girls at the same time.

In Zambia, preparing and disseminating a country water resources assistance strategy that provided a holistic perspective on the water sector, including on key issues, opportunities, and a way forward, was a good practice. Another good practice was putting in place new IWRM legislation, institutional framework, and implementation plans, which have helped set a foundation for building IWRM practices. A third good practice was covering interstate (transboundary) water resources management in the new water act. Interstate water resources management is handled by independent and specialized authorities, such as the Zambezi River Authority. Finally, a sector-wide approach is being adopted, which is useful for pooling resources and providing assistance in a more coordinated and holistic manner.

Source: Compiled from country case study reports.
Management Response

Management welcomes OPEV’s evaluation of the African Development Bank’s Integrated Water Resources Management (IWRM) Policy and its implementation. Management readily acknowledges that while IWRM Policy’s objectives remain relevant, the current policy needs to be adjusted and better aligned with Africa’s emerging challenges and the Bank’s new strategic orientation. The findings and recommendations of the evaluation provide a sound basis for the planned revision of this policy.

Better management of Africa’s water resources remains a fundamental development challenge. Less than 5 percent of Africa’s surface water is harnessed for productive uses. And in Sub-Saharan Africa, 37 percent of people lack access to safe drinking water and 70 percent have inadequate sanitation facilities. In recent years, further challenges such as climate change, population growth, industrialization and urbanization are putting water resources under increasing stress. As a result, public health systems are overburdened and Africa’s productive capacity is being hamstrung.

For all these reasons, the Bank elaborated an Integrated Water Resource Management Policy. It was developed on the principle that water should be treated as an economic, social, and environmental good, and policies guiding water resources management should be apprehended within an integrated framework. The Policy defines IWRM as a comprehensive approach to water resources management (WRM) that views water as a single resource with competing uses and inter-linkages with ecological, social and economic systems.30 OPEV’s evaluation assesses the relevance of the Bank’s IWRM policy to Regional Member Countries (RMCs) needs and the Bank’s corporate objectives. It also examines the Bank’s effectiveness in implementing the policy as well as the results and challenges of policy implementation.

Management is of the view that the approach of the evaluation does not provide a comprehensive picture of the Bank’s implementation of interventions in water resources management but focuses rather, on the Bank’s compliance to the IWRM Policy. In addition, the evaluation has focused on measuring the value of the projects that have been financed, rather than their development impact or outcome. While acknowledging that economic development and poverty reduction are key objectives of water resources management policy, the evaluation does not indicate how this can be assessed. Giving emphasis to infrastructure investment expenditure rather than technical assistance for policy and institutional development does not take into account the positive development impact these may have even in the absence of infrastructure investment. Management however appreciates that some of the challenges in an evaluation of this nature, particularly the assessment of impacts are very complex and also that some developments have taken place in the two and a half years since the end of the evaluated period. Key observations of the evaluation and Management’s responses are summarized below.

Relevance of the Bank’s IWRM Policy

Management agrees that the IWRM Policy needs to be streamlined and updated to address RMC’s emerging needs and challenges. It also need to be better aligned with the Bank’s new strategic direction as outlined in the Bank’s Strategy for 2013-2022. The strategy notes, for example, that Massive investments in integrated water development and management are central to sustainable water, food and energy security for green and inclusive growth.31

As a first steps towards adjusting the IWRM policy, the Operational Resources and Policies Department (ORPC) has already secured the necessary funding for the revision of the Policy under Multi Donor Water Partnership Programme (MDWPP). The revised Policy will incorporate the issues identified in the evaluation report as well as those aspects that were not sufficiently addressed in the current Policy. These include:

- Green and inclusive growth
- Climate change
- Water, food and energy security
- Rapid urbanization
- Water-related disaster management

Management appreciates that more could be done to better implement IWRM Policy through institutional arrangements and business processes that enable a coordinated “One Bank” approach. To this end, Management has established a Bank-Wide Water Task Force led by OWAS to exercise its coordination mandate and ensure an integrated and effective response to complex and multi-objective water-related operations. Furthermore, the revised policy will be supported by corporate-level operational plan including business plan and institutional framework that will enhance the effectiveness and efficiency of the Bank’s interventions in the water sector.

The Bank’s Portfolio in IWRM

The water sector portfolio has grown substantially. It increased from 8 percent of the Bank’s portfolio in 1967–1999 to 9 percent over 2000–2010 (11 percent in 2007–2010). It has also become more diversified over time.

Management agrees that while the Bank’s water sector portfolio is increasingly diversified, water supply and sanitation sector represent the lion’s share of the portfolio representing 60 percent of the portfolio.

The Bank is further pursuing a diversification of the portfolio. In 2012, Water and Sanitation approvals accounted for 41 percent of the portfolio with significant increases in irrigation and hydropower investments. The 2012 portfolio includes relatively small investments in water resource management and multipurpose projects, but it is important to note that these investments are designed to leverage additional funding.

While most of the Bank funding went into project based interventions, the Rural Water Supply and Sanitation Initiative (RWSSI) is successfully mainstreaming a programmatic approach in the sub sector across Africa.

31 African Development Bank Group, At the Center of Africa’s Transformation, Strategy for 2013–2022, p. 7
Management agrees that more should be done to support capacity building beyond immediate project needs, conduct economic and sector work (ESW) to better inform strategic directions, and to support multi-national projects and studies for preparation of bankable integrated water sector projects. It is worth noting, however, that the impact of activities supported by the African Water Facility (AWF) and MDWPP have been significant and should not simply be viewed in terms of their relatively small financial value compared to the larger investment financing amounts. Nonetheless, upstream engagements are critical for moving the Bank towards strategic directions stipulated in the Bank’s Strategy for 2013-2022. These need to be supported by adequate and predictable financial resources.

### Project Implementation

While the design of water sector projects was generally compliant with IWRM policy, Management notes that there was limited development and support for a comprehensive, cross-sector approach for water resources management. This was not only due to the nature of Bank business processes and structure, but also to the separation of responsibilities and lack of inter-ministerial coordination within RMCs. Limited financial resources to tackle water challenges at scale have also contributed to some extent. Nonetheless, Management is mindful of the need for more conducive effective inter-departmental collaboration for effective IWRM implementation.

Management notes with concern that only half of the completed projects reviewed received a "satisfactory" rating. However, as noted earlier, this was partly due to long implementation delays raising questions about sustainability issues. Management also notes that Project Completion Reports in the last three years have shown a higher proportion of 'satisfactory' ratings. Nevertheless, the necessary steps and measures will be needed to improve portfolio performance under the revised policy and newly developed strategies.

In addition, in order to improve portfolio performance, Management introduced a systematic and comprehensive operations rating system throughout the project cycle in January 2013. All the Bank’s operations are now included and each operation is rated and tracked throughout the project cycle.

Management agrees that appreciation of the economic aspects of water, sustainability of outputs and outcomes and implementation efficiency could be further improved to ensure high quality project results. Capacity development efforts are also on-going for task managers to better appreciate challenges and to identify appropriate actions aimed at improving achievement of projects’ development goals.

With respect to water sector, several sub-sector strategies such as the Rural Water Supply and Sanitation Initiative Strategic Plan, the Agriculture Sector Strategy, the Energy Sector Policy, and the Urban Water and Sanitation Development Framework have been developed or are in process to guide and improve the Banks interventions in these areas. Moreover, there are a number of tools developed to improve the quality of projects and strengthen staff capacity such as the “Guidelines
for User Fees and Cost Recovery” and the study on “Water Sector Governance in Africa” both funded under the MDWPP. More knowledge products will continue to be developed as necessary and Management will pursue measures to further improve quality at entry and performance of the water sector investments.

Implementing IWRM at Policy and Institutional Level

Management agrees that the Bank’s policy and institutional level support to RMCs on water management issues needs to be strengthened. Central to this is the need to ensure that the IWRM agenda is mainstreamed into the CSP process through better targeting of sector analytical and diagnostic work.

Interdepartmental coordination will need to be strengthened with an appropriate institutional framework including adequate human resources and incentives. Moreover, clear guidance and instruction will be provided to staff through an overarching corporate-level mid-term operational strategy for IWRM. Management notes that preliminary work has been undertaken by OWAS, which could serve as basis for developing this strategy.

The on-going process of decentralisation of sector staff to the country and regional offices provides an opportunity for intensifying the Bank’s engagement in water sector policy dialogue and decision-making at the country level. Moreover, recently approved “Guidance Document for Mainstreaming Climate Change in the Bank’s CSPs and RISPs” could provide an opportunity for mainstreaming IWRM in country dialogue, as climate change impacts are often felt through water and consequently sound WRM is essential for building a climate resilient society.

Business Processes and Institutional Structures

IWRM is inherently difficult due to the cross-cutting nature of the policy. Separation of responsibility and insufficient coordination at the country level also adds to this challenge. To address this challenge Management will consider adjustments to the Bank’s business processes and institutional structure that could further enhance the Bank’s capacity to implement the IWRM policy more effectively. Key issues to be addressed include a provision of better incentives for closer collaboration among sector departments and a formal framework for coordination of IWRM policy implementation within the Bank that is consistent with IWRM principles of clear separation between management function and supply functions. In the meantime, the Water Task Force (WTF), under OWAS leadership has been effective in convening rapidly to address pressing issues in Mozambique and Kenya. It is expected that the formalization of the WTF with the right incentives will enable the bank to effectively support RMCs meet their needs through multipurpose water resources development and management activities.

Management appreciates the importance of maximizing synergy with and aligning the various Bank hosted initiatives and trust funds to better support CSP process. It wishes to point out, however, that those activities are fully aligned with Country Strategy Papers. That being said, MDWPP and AWF activities may not always be readily aligned
to a current CSP. MDWPP activities because of their thematic nature are not country focused and therefore not easily aligned to CSPs and RISPs. AWF, in financing project preparation activities are more likely to influence the subsequent CSP rather than be aligned to the current one.

Management acknowledges the importance of further improving the staff capacity for effective implementation of the Policy. There are already regular IWRM training events organized for staff and RMCs. In addition, the Bank has been actively organizing and participating in a number of learning events such as Africa Water Week, AfricaSan, Stockholm World Water Week and the World Water Forum series to strengthen capacity of the staff to improve quality of the interventions. Furthermore, a community of practice for water (Knowing Water) has recently been established by OWAS. The Bank’s internal capacity on IWRM will be continuously reviewed and improved.

Conclusion

The evaluation makes a number of insightful observations and useful recommendations for improving the Bank’s IWRM Policy and its implementation. On the basis on this evaluation, Management is making a commitment to implement a series of actions to enhance the implementation of the Policy through the “One-Bank” approach.
<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Management’s response</th>
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</table>
| **RECOMMENDATION 1: The Bank should update the Policy Framework** | **Agreed.** Management agrees that the policy needs to be streamlined and updated to address emerging needs and challenges. Management notes that agreement for revision of the Policy has been reached between OWAS and ORPC and funds have been reserved under MDWPP.  
**Actions:**  
- ORPC will revise and update the Bank’s IWRM Policy by Q4 2014. The revised Policy will address emerging needs and challenges in Africa in line with the Bank’s new strategic orientation. |
| **RECOMMENDATION 2: Define the scope and level of interventions to guide implementation** | **Agreed.** Management notes that sub-sector strategies and tools for WSS, agriculture and energy have been developed or are in process of being developed. The Bank is also supporting IWRM capacity building at national and regional level through AWF, MDWPP and EADI though there is a need to scale up. In addition, OWAS/ONRI have initiated development of a work plan on trans-boundary water resources management. However, IWRM is a comprehensive approach that requires an overarching implementation plan.  
**Actions:**  
- OWAS and ONEC will complete the on-going Urban Water Supply and Sanitation Strategy and Energy strategy respectively by Q4 2014.  
- OWAS and ONRI in collaboration with OSAN and ONEC to complete the on-going work to develop an approach and work plan for trans-boundary WRM by Q4 2013. |
| **RECOMMENDATION 3: Instruments, institutional structures and business processes should be adapted to policy goals** | **Agreed.** Management is mindful of the importance of supporting capacity building activities at country level, upstream engagement such as economic and sector works and preparation of bankable interventions. These activities require increased and predictable financial resources.  
**Actions:**  
- Management will use programming and budget exercise for 2014 to consider the availability of financial resources in the administrative budget to AWF, MDWPP and other similar instruments and support efforts to mobilise resources for RMCs to facilitate required strategic analytical work and capacity building activities on IWRM. |
### MANAGEMENT ACTION RECORD

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</table>
| **(ii) Developing and implementing an interdepartmental review mechanism for implementing the policy and water related operations through increased Bank-wide coordination, collaboration and results monitoring.** A panel of external water experts could initially support the group. | **Agreed.** Management agrees on the need for more interdepartmental collaboration on water development activities by OWAS, OSAN, ONEC, OSHD, ORQR, ORPC and OPSM. The establishment of a Water Task Force led by OWAS is a move in the right direction. **Actions:**  
  - Management will put in place more appropriate institutional framework including human resources and incentives that will best enable Bank-wide coordination to ensure effective IWRM implementation by Q2 2014. |

### RECOMMENDATION 4: Practice and promote more concerted, harmonised and coordinated international efforts.

The Bank should develop and implement a corporate-level medium-term operational strategy, one of the major responsibilities of the proposed interdepartmental policy coordination group. The operational strategy should include a clear business plan detailing key tasks and intended outcomes, the required resources and monitoring and reporting mechanisms Bank-wide as well as inviting donors and shareholders to provide dedicated resources for IWRM implementation.

**Agreed.** Management agrees that the Bank should develop a corporate-level operational plan detailing business processes, intended outcomes, monitoring and reporting mechanisms, and resources implications for a Bank-wide approach to IWRM. Management will also enhance dialogue with RMCs to encourage the financing of more integrated, multi-purpose water projects. **Actions:**
  - OWAS in collaboration relevant departments will develop a business plan for IWRM as well as monitoring and reporting mechanisms by Q2 2015, following the completion of the Policy.
  - Management will initiate resource mobilization activities based on the business plan to increase resources to support the IWRM implementation by Q4 2014.

### RECOMMENDATION 5: The CSP process should be strengthened and used to inform strategic decisions at the country level

The CSP process should be strengthened and used to inform strategic decisions at the country level and be supported by robust water sector diagnostics and analytical work that provide a strong strategic rationale for Bank’s involvement.

**Agreed.** Management agrees that water resources management issues need to be better reflected in the CSP process and that one of the preconditions for this is more extensive use of analytical water related work to inform the development of CSPs. **Actions:**
  - During the 2014 programming and budget exercise, Management will explore the possibility of making additional financial resources available through the administrative budget, AWF, MDWPP and other similar instruments to facilitate required strategic analytical work to influence IWRM incorporation in CSPs.
## MANAGEMENT ACTION RECORD

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<th>Recommendation</th>
<th>Management’s response</th>
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<tr>
<td><strong>RECOMMENDATION 6: Bank administered initiatives in the water sector should be strategically aligned under the CSP and under the “One Bank” approach</strong></td>
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<tr>
<td>The Bank administered AWF, WPP, RWSSI and other similar initiatives should be strategically aligned under the CSP and under the “One Bank” approach. This approach can be piloted in few countries to start with, in particular in RMCs where the Bank has already supported IWRM related activities and fine-tuned and implemented in other RMCs.</td>
<td><strong>Agreed In Part.</strong> Management agrees on the importance of strategic alignment of various initiatives under the CSP development and implementation. Management notes that RWSSI interventions are already fully aligned with specific CSPs. MDWPP because of its thematic nature is not country or regionally focused and therefore not easily aligned to CSPs or RISPs. AWF in financing project preparation activities is more likely to influence subsequent CSPs than be aligned with current CSPs.</td>
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**RECOMMENDATION 7: Improve internal capacities, IWRM knowledge sharing, and incentives** |
<p>| The Bank should improve its internal capacities, IWRM knowledge sharing, and incentives and transform itself into a lead development partner as well as a knowledge bank for the water sector in Africa by: (i) Providing regular learning events; | <strong>Agreed.</strong> Management agrees that the Bank’s internal capacity and knowledge management on IWRM need to be continuously reviewed and improved. However, Management notes that there are IWRM training events organized by EADI/OWAS for staff and RMCs annually, training financed under MDWPP as well as learning opportunities provided by the AWW, AfricaSan, WWF ad WWW series. <strong>Actions:</strong> • EADI/OWAS in collaboration with water-related sector departments will publish a timetable of learning events related to IWRM by Q3 2013. • OWAS will ensure that water sector staff in other departments benefit from MDWPP financed training events by inclusion in the annual work programme by Q1 2014. |
| ii) Developing and implementing a community of practice for water related operations; | <strong>Agreed.</strong> OWAS has recently initiated “Knowing Water” - a community of practice for the water sector. <strong>Actions:</strong> • By Q3 2013, OWAS will expand “Knowing Water” to address the needs of other water-related departments within the Bank. |
| iii) Streamlining project preparation with proper attention to sustainability issues of the Bank funded water related operations; | <strong>Agreed in part.</strong> Management agrees that sustainability issues need careful attention and internal capacity needs to be improved. However, Management points out that sustainability is already being addressed as part of due diligence under current project preparation processes. With respect to water sector, a number of tools and guidelines have been developed to support sustainability and strengthen staff capacity for policy dialogue. The new sector strategies being developed emphasise sustainability issues. The Bank will continue to develop the necessary knowledge products. |</p>
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| **iv) Formally recognizing and rewarding Bank staff for their new ideas and excellence in water practices that improve development outcomes of the Bank-funded water related operations.** | **Agreed.** Management agrees that though individual staff incentive could be addressed through the current staff performance management system and People Strategy, business process needs to be designed to incentivise interdepartmental projects/programs through the “One-Bank” approach.  
**Actions:**  
• Management will put in place more appropriate institutional framework including human resources and incentives that will best enable Bank-wide coordination to ensure effective IWRM implementation by Q2, 2014. |
Integrated Water Resources Management in Africa
An Independent Evaluation of Bank’s Assistance 2000-2010

CODE SUMMARY REPORT

About the AfDB: The overarching objective of the African Development Bank Group is to spur sustainable economic development and social progress in its regional member countries (RMCs), thus contributing to poverty reduction. The Bank Group achieves this objective by mobilizing and allocating resources for investment in RMCs and providing policy advice and technical assistance to support development efforts.

The mission of the Operations Evaluation Department is to enhance the development effectiveness of AfDB initiatives in its regional member countries through independent and instrumental evaluations and partnerships for sharing knowledge.

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