

CIWA

Cooperation in International Waters in Africa | **Annual Report 2015**

99766



© September 2015 The World Bank Group
1818 H Street NW
Washington, DC 20433
Telephone: +1 (202) 473-1000
Internet: www.worldbank.org

Acknowledgments

This report was prepared by the following members of the CIWA Team: Gustavo Saltiel, Jacqueline Tront, K. Anna Kim, Anjali Lohani Basnet, Susae Elanchenny, Sirein Awadalla, Dawit Tadesse, Marcus Wishart, Eileen Burke, Christina Leb, Patricia Fernandes, Habab Taifour, Shelley McMillian, Sylvestre Bea, Regassa Namara, Nagaraja Harshadeep and Rachel Ort. Document design was created by StudioGrafik.

Photo Credits

Unless indicated otherwise, photos used in this publication have been sourced from the following locations with full rights: World Bank Flickr Website, Creative Commons, European Space Agency (ESA), and United States Geological Survey (USGS).

Disclaimer

This work is a product of the World Bank with external contributions. The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of the World Bank, its Board of Executive Directors, or the governments they represent. The World Bank does not guarantee the accuracy of the data included in this work. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of the World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

Rights and Permissions

The material in this work is subject to copyright. Because the World Bank encourages dissemination of its knowledge, this work may be reproduced, in whole or in part, for noncommercial purposes as long as full attribution to this work is given.

Any queries on rights and licenses, including subsidiary rights, should be addressed to the Office of the Publisher, The World Bank, 1818 H Street NW, Washington, DC 20433, USA; fax: +1 (202) 522-2422; email: pubrights@worldbank.org.

CIWA

Cooperation in International Waters in Africa | **Annual Report 2015**



TABLE OF CONTENTS

Acronyms and Abbreviations	1
Foreword	3
Message From the Program Manager	4
Section 1: Portfolio Overview	7
Section 2: Balanced Support in Priority Basins	13
<i>Nile Basin Program</i>	14
<i>Volta Basin Program</i>	22
<i>Zambezi Basin Program</i>	25
<i>Niger Basin Program</i>	31
Section 3: Targeted Support for High-Impact Opportunities	39
Section 4: Knowledge Management and Technical Assistance	47
Section 5: Results Achieved	59
Section 6: Financial Overview	69
Section 7: CIWA Moving Forward	77
Appendix A: Description of Investments Influenced by CIWA	82
Appendix B: Financial Details of Projects Funded by CIWA	85
Appendix C: CIWA's Results Framework and Monitoring	87
Appendix D: CIWA's Risk Analysis Framework	93
Appendix E: Value for Money in CIWA's Program Design and Implementation	99

LIST OF BOXES

Box 1: NBD Stakeholder Analysis Strengthens Its Facilitation Capacity	20
Box 2: CIWA Contributes to Kariba Dam Rehabilitation Project	29
Box 3: CIWA Advances Lessons Learned on Large-Scale Resettlement	35
Box 4: Niger Basin Countries Prepare Climate Resilience Investment Plan Ahead of COP21	36
Box 5: How Will the Okavango MSIOA be Conducted?	43
Box 6: Political Economy Analysis and CIWA Programming	51
Box 7: CIWA Makes the Case for Transboundary Cooperation to Build Climate Resilience	55

LIST OF FIGURES

Figure 1: Total Funding Allocation by Basin	11
Figure 2: Total Funding Allocation by Partner Type	11
Figure 3: Total Funding Allocation by Grant Type	11
Figure 4: The Niger Basin Support Program	34
Figure 5: CIWA Advances Investments across Africa	65
Figure 6: CIWA Strengthens Cooperation	67
Figure 7: CIWA's Funding Process	70
Figure 8: Allocated, Committed, Disbursed, and Pipeline Activity Amounts per Basin/Sub-program	74

LIST OF MAPS

Map 1: Balanced Support in Priority Basins	8
Map 2: Highly Targeted Opportunistic Support in Select Regions	8
Map 3: Projected Change in Seasonal Variability in Africa (Value in 2040 Business as Usual)	54

LIST OF TABLES

Table 1: Potential Investments Influenced by CIWA	60
Table 2: Mobilized Investments Influenced by CIWA	61
Table 3: Overview of Donor Pledges and Deposits	71
Table 4: Overview of Availability and Allocation of Funding	72
Table 5: Detailed Account of Allocation of Available Funding	73
Table 6: Allocation, Commitment, Disbursement and Pipeline Amounts	74
Table 7: Fund Balance	75

ACRONYMS AND ABBREVIATIONS

AC	Advisory Committee	NBA	Niger Basin Authority
AF	Additional Financing	NASA	National Aeronautics and Space Administration
BAC	Basin Advisory Committee	NBD	Nile Basin Discourse
BoC	Basis of Commitment	NBI	Nile Basin Initiative
CG	Consultative Group	NBTF	Nile Basin Trust Fund
CIWA	Cooperation in International Waters in Africa	NCORE	Nile Cooperation for Results
COP21	21st Conference of the Parties	NELSAP	Nile Equatorial Lakes Subsidiary Action Program–Coordination Unit
CSO	Civil Society Organization	NBDF	Nile Basin Development Forum
CSP	CIWA Support Plan	Nile-Sec	Nile Basin Initiative Secretariat
DFID	United Kingdom Department for International Development	NOAA	National Oceanic and Atmospheric Administration
DRC	Democratic Republic of Congo	OKACOM	Permanent Okavango River Basin Water Commission
DSS	Decision Support System	PEA	Political Economy Analysis
ECOWAS	Economic Community of West African States	PIDA	Priority Investments for Development in Africa
ENTRO	Eastern Nile Technical Regional Office	PMU	Program Management Unit
ESIA	Environmental and Social Impact Assessment	PDO	Program Development Objective
EC	European Commission	RBO	River Basin Organization
FY	Fiscal Year	REC	Regional Economic Community
GEF	Global Environment Facility	SADC	Southern African Development Community
GFR	Grant Funding Request	SAPP	Southern African Power Pool
GGP	Governance Global Practice	SDAP	Sustainable Development Action Plan
GMI	Groundwater Management Institute	UN	United Nations
GP	Global Practice	UNFCCC	United Nations Framework Convention on Climate Change
HES	Hydroelectric Scheme	VBA	Volta Basin Authority
IDA	International Development Association	VfM	Value for Money
IR	Intermediate Results	WEAP	Water Evaluation and Planning Model
IWRM	Integrated Water Resources Management	WRCC	Water Resources Coordination Centre
LCBC	Lake Chad Basin Commission	ZAMCOM	Zambezi Watercourse Commission
LEAP	Long-Range Energy Alternatives Planning Model	ZRA	Zambezi River Authority
MTR	Mid-Term Review		
MDTF	Multi-Donor Trust Fund		
MSIOA	Multi-Sector Investment Opportunities Analysis		

FOREWORD

In the world of water, there are two turn-key events on the horizon: first, the international community is expected to coalesce around the Sustainable Development Goals (SDGs) which will set important targets for the world's collective efforts to end poverty, including a water-specific goal; second, during the UNFCCC COP21 in Paris, the international community is expected to deepen its recognition that people need to have the means to adapt to climate change, particularly through water-related interventions. The World Bank's Water Global Practice (GP) is poised to be a major implementing arm on both fronts as it focuses its work on achieving water security for all.

To understand the complexity of challenges associated with ensuring water security in our climate-uncertain world, one need look no further than Africa. As the climate changes, water availability may diminish in some areas, exacerbating already water-stressed conditions; other areas will have more water than they can manage. In Africa's Lake Chad and Niger River basins, for example, water availability is predicted to decrease, and the intensity of the rains will likely shift, affecting millions of impoverished people who rely on rain-fed agriculture, pastoralism and ecosystems services for their lives and livelihoods.

All of Africa's major waters are transboundary, which complicates countries' abilities to manage and develop their water resources. Currently, only ten percent of Africa's hydropower potential is developed and only five percent of its cultivated land is irrigated. While these water-dependent sectors must be developed, the financial, technical and political complexities of transboundary waters form serious obstacles to achieving the climate-resilient food, energy and water security needed for Africa's sustainable development.

Fortunately, the drive for regional integration in Africa is strong, and many African countries have already demonstrated the political will to work together on water resources management to optimize regional benefits and mitigate shared risks. Yet Africa needs support to fully take advantage of opportunities for water-related regional approaches. For example, recognizing the advantages of cooperation, the countries sharing the Niger River and Lake Chad basins recently requested the World Bank's support to use COP21 to highlight the extensive challenges they are facing due to the changing climate. Through its newly established Water GP, and in partnership with other donors, the World Bank is working with countries sharing river basins to draw international attention to their climate resilience-related needs and to identify related priority water-related investments.

Cooperation in International Waters in Africa (CIWA) is one program through which development partners and the World Bank are leveraging the expertise, convening power and resources of the Bank for managing and developing transboundary water resources in Africa. The program's focus on facilitating cooperation that reaches across sectors for sustainable, climate-resilient growth in Sub-Saharan Africa makes it a key vehicle in support of the SDGs. The strategic alignment of CIWA's support with national and regional priorities, as well as with World Bank and other development-partner interventions, continues to provide the basis for the on-the-ground results detailed in this report.

Junaid Kamal Ahmad

Sr. Director, Water Global Practice, World Bank

MESSAGE FROM THE PROGRAM MANAGER

Over the past five years, the Cooperation in International Waters in Africa (CIWA) program has built an outstanding platform of support for African countries as they seek to overcome complex political, financial, technical and logistical barriers that arise in mobilizing international waters for climate-resilient growth. Through individualized partnerships with national governments, regional organizations, international organizations, civil society and recognized experts, CIWA has allocated 97 percent of its US\$68 million portfolio and all of its programs and projects are under implementation.

Responding to demand from riparian countries, CIWA directly supports 11 organizations in seven transboundary basins across Africa. Four of these basins—the Volta and the Niger in the west, the Nile in the east, and the Zambezi in the south—receive 75 percent of CIWA's available funds due to the high level of regional interest and commitment of riparian countries, strategic alignment with CIWA's objectives, and the high level of expected benefits from CIWA's support for the basin. In these four basins, CIWA balances support for institutional frameworks required to facilitate cooperation with support that helps advance and improve the quality of water resources-related investments.

This year, for the first time, a potential investment influenced by CIWA graduated from preparation to implementation. CIWA played a key role in the initiation of the US\$294 million Kariba Dam Rehabilitation Project, which secured financing from the World Bank, the European Commission (EC), the African Development Bank (AfDB), Sweden, and the Zambezi River Authority (ZRA). This investment will assist ZRA in reinforcing the reliability of the dam, thus securing the long-term safety of the millions of people who live downstream of it, and ensuring energy security for the people and economic activities reliant on the dam. In the past year, CIWA also leveraged direct investment in water resources management through a partnership with the Volta Basin Authority (VBA). The US\$10.7 million grant is co-funded by the Global Environment Facility (GEF) and supports key institutional strengthening measures and on-the-ground actions that will restore water quality and rejuvenate ecosystem services provided by the Volta River.

Complementing its engagement in the four priority basins, CIWA also expanded the geographic reach of its impact by advancing highly targeted projects in the Okavango and Lake Chad basins. For example, in the past year, CIWA partnered with the Permanent Okavango River Basin Commission (OKACOM) to identify the scope and preliminary data in order to initiate development of a Multi-Sector Investment Opportunity Analysis (MSIOA) for the Basin. Listed in the African Union's Priority Investments for Development in Africa (PIDA) Strategic Action Programme, the Okavango MSIOA will delineate a development pathway that meets national development and poverty reduction objectives while striving to sustain the basin's ecosystem services and the delta's global value.

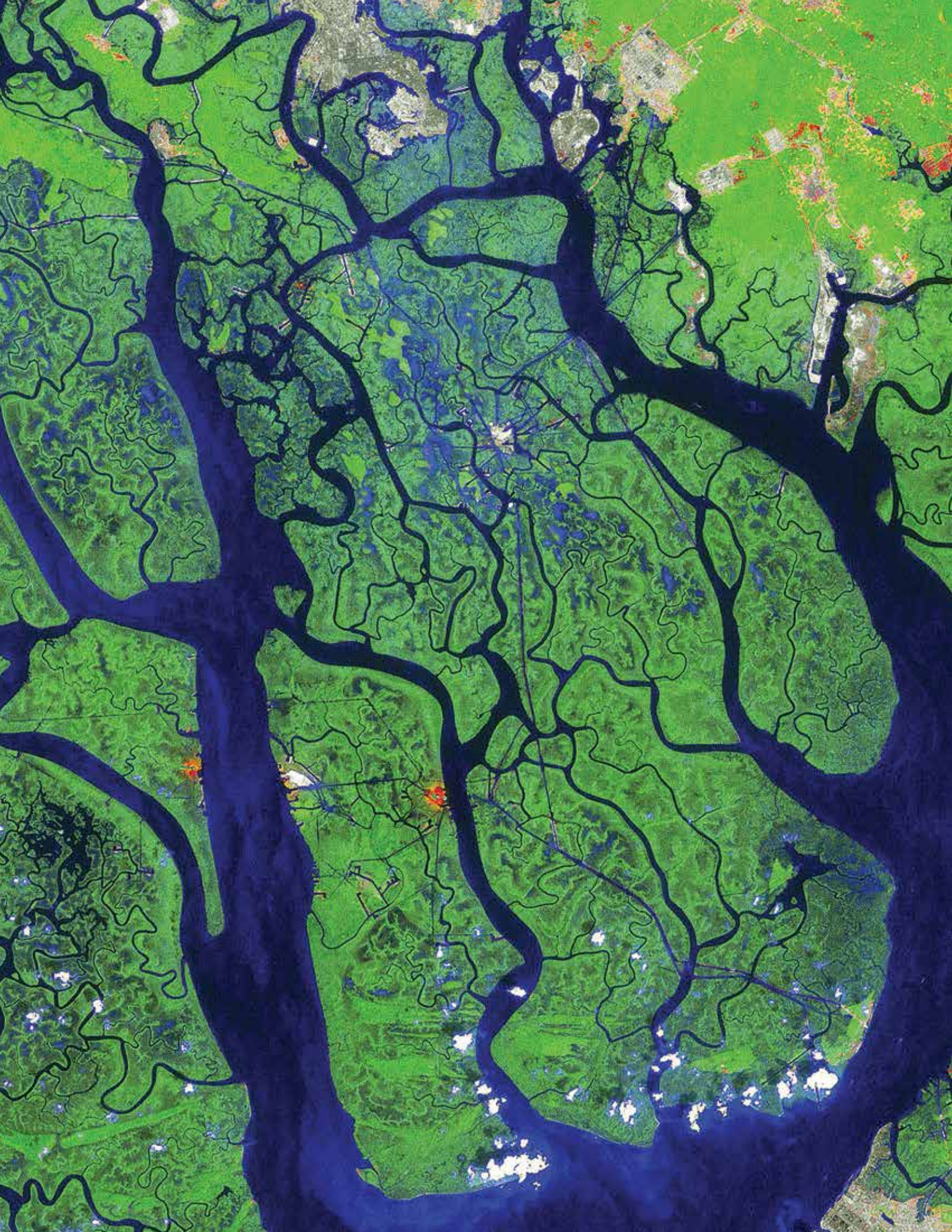
In the lead up to the 21st United Nations Framework Convention on Climate Change Conference of the Parties (UNFCCC COP21), CIWA also expanded its analytical work to improve the evidence base and articulate the opportunities international waters provide for building climate resilience. Regional organizations and riparian countries in the Lake Chad and Niger basins have explicitly requested assistance in harnessing the COP21 platform to draw attention to their extensive climate resilience investment needs.

At the mid-point of its intended timeframe, CIWA has made significant progress toward achieving its ten-year goals by influencing US\$8.9 billion in investment financing (US\$1.3 billion of which is mobilized) where the investments are slated to benefit 48.6 million people across Africa. In order to respond to the substantial demand from its clients and expand its impact, CIWA is planning to deepen its program of support. This year the program secured a €5 million pledge from the EC, adding this strategic partner to its strong roster of development partners: the governments of Denmark, the Netherlands, Norway, Sweden, and the United Kingdom.

As its first phase closes and its second phase begins, CIWA is undertaking its mid-term review (MTR) to assess progress to date and determine if the program is fit for purpose to meet its goals and client demand. The program expects that the findings from the MTR will allow it to further excel in its mission to aid riparian countries to achieve sustainable, climate-resilient growth in the years ahead.

Gustavo Saltiel

CIWA Program Manager





PORTFOLIO OVERVIEW

In Fiscal Year 2015 (FY15), the CIWA program supported 11 organizations in 7 basins across Africa. The entire portfolio is under implementation, with 17 percent of funds disbursed—tripling the disbursement amount in FY14.

CIWA Resource Envelope	US\$68 million
------------------------	-----------------------

Funding Leveraged	US\$31.9 million
-------------------	-------------------------

Investments Influenced	US\$8.9 billion
------------------------	------------------------

Estimated Beneficiaries	48.6 million
-------------------------	---------------------

CIWA responds to demand for balanced support in four key basins. In the Nile, Zambezi, Niger, and Volta basins, the program balances support for institutional development and information systems with assistance that helps riparians to advance and improve the quality of investments.

[See Section 2, page 13.](#)

Map 1: Balanced Support in Priority Basins



CIWA responds to demand for highly targeted projects. The program provides turnkey support for analysis of water resources management and development opportunities in the Okavango Basin, Lake Chad Basin, the Orange-Senqu Basin and support for innovative approaches to water resources management in the Southern Africa Development Community (SADC) and Economic Community of Western African States (ECOWAS).

[See Section 3, page 39.](#)

Map 2: Highly Targeted Opportunistic Support in Select Regions



CIWA responds to demand for knowledge management and technical assistance. The Political Economy Analysis (PEA) activity is helping to inform CIWA activities, and a new activity illustrating the importance of transboundary cooperation for building climate resilience is under way.

[See Section 4, page 47.](#)

WAYS PEOPLE BENEFIT FROM CIWA SUPPORT

ENT SUSTAINABLE DEVELOPMENT
OSYSTEM SERVICES ECOSYSTEM
T WATERSHED MANAGEMENT W
RE STORAGE INFRASTRUCTURE
PLY WATER SUPPLY WATER SU
SECURITY WATER SECURITY WA
ERIES FISHERIES FISHERIES FIS
IRRIGATION IRRIGATION IRRIGATION IRRIGATION IRRIGATION
FOOD SECURITY FOOD SECURITY FOOD SECURITY FOOD S
MULTIPURPOSE INFRASTRUCTURE MULTIPURPOSE INFRA
NAVIGATION NAVIGATION NAVIGATION NAVIGATION NAVIGA
ENERGY PRODUCTION ENERGY PRODUCTION ENERGY PRO
POWER TRADE POWER TRADE POWER TRADE POWER TRA
ELECTRICITY ACCESS ELECTRICITY ACCESS ELECTRICITY
ENERGY SECURITY ENERGY SECURITY ENERGY SECURITY
EARLY WARNING SYSTEMS EARLY WARNING SYSTEMS EAF
HYDROMET DATA HYDROMET DATA HYDROMET DATA HYD
REDUCED UNCERTAINTY REDUCED UNCERTAINTY REDUCED
MITIGATED FLOOD RISKS MITIGATED FLOOD RISKS MITIGA
INCREASED ADAPTABILITY INCREASED ADAPTABILITY INCR
REDUCED DROUGHT RISKS REDUCED DROUGHT RISKS RE
PROTECTED LIVELIHOODS PROTECTED LIVELIHOODS PRO
REDUCED VULNERABILITY REDUCED VULNERABILITY RED
ENVIRONMENTAL FLOWS ENVIRONMENTAL FLOWS ENVIRO
CLIMATE RESILIENCE CLIMATE RESILIENCE CLIMATE RESIL
OPTIMIZED DEVELOPMENT OPTIMIZED DEVELOPMENT OPT
STRATEGIC DECISIONS STRATEGIC DECISIONS STRATEGIC
STAKEHOLDER CONSULTATIONS STAKEHOLDER CONSULTA
ECONOMIC OPPORTUNITIES ECONOMIC OPPORTUNITIES E
INCOME GENERATION INCOME GENERATION INCOME GEN
POVERTY ALLEVIATION POVERTY ALLEVIATION POVERTY A
SHARED PROSPERITY SHARED PROSPERITY SHARED PROS
STRENGTHENED CAPACITY STRENGTHENED CAPACITY ST
INCREASED KNOWLEDGE INCREASED KNOWLEDGE INCRE
REGIONAL REGIONAL REGIONAL REGIONAL REGIONAL RE

CIWA SUPPORTS INVESTMENTS, INFORMATION AND INSTITUTIONS

INVESTMENTS

Facilitating agreement
Evaluating tradeoffs
Scoping
Pre-identification
Identification
Pre-feasibility
Feasibility
Environmental and social impact
assessment
Detailed design
Transaction and legal support
Resource mobilization
Informing construction and
commissioning
Informing ongoing operations and
maintenance

INFORMATION AND INSTITUTIONS

Platform for cooperation
River basin planning
Information synthesis
Monitoring systems
Analytical tools
Information dissemination
Evaluating tradeoffs
Sustainability of core financing
Communication
Stakeholder participation
Evidence base for cooperation
Stakeholder consultations
Legal instruments
Institutional frameworks
Transboundary operating rules
Allocation mechanisms
Water for the environment
Regional financing mechanisms

OVERVIEW OF FUNDING ALLOCATIONS IN THE CIWA PORTFOLIO

Figure 1: By Basin or Region

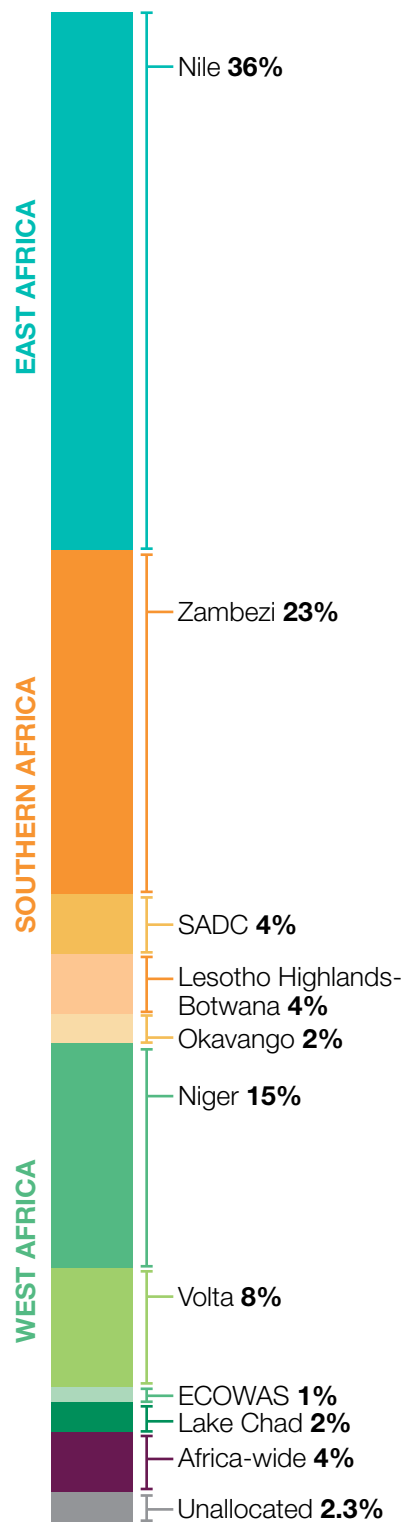


Figure 2: By Type of
Implementing Partner

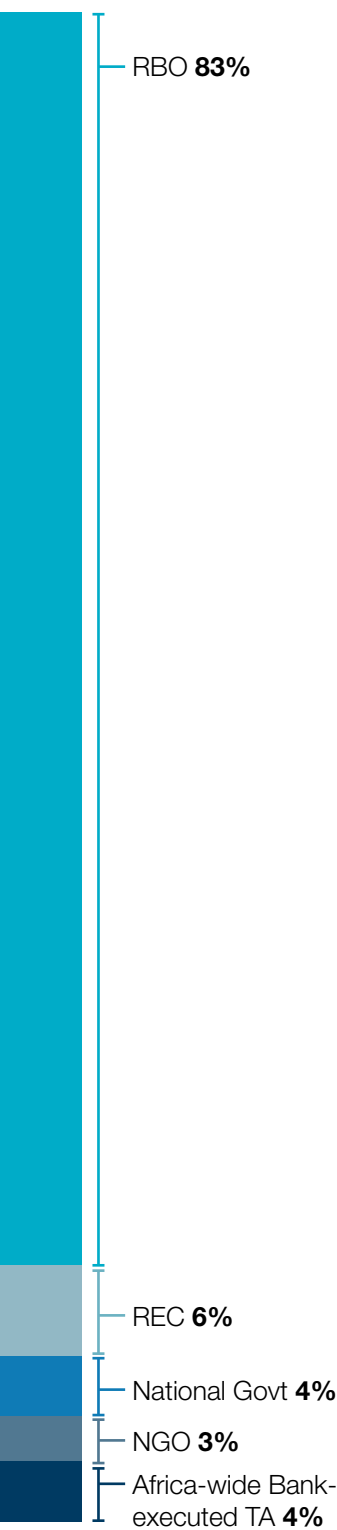
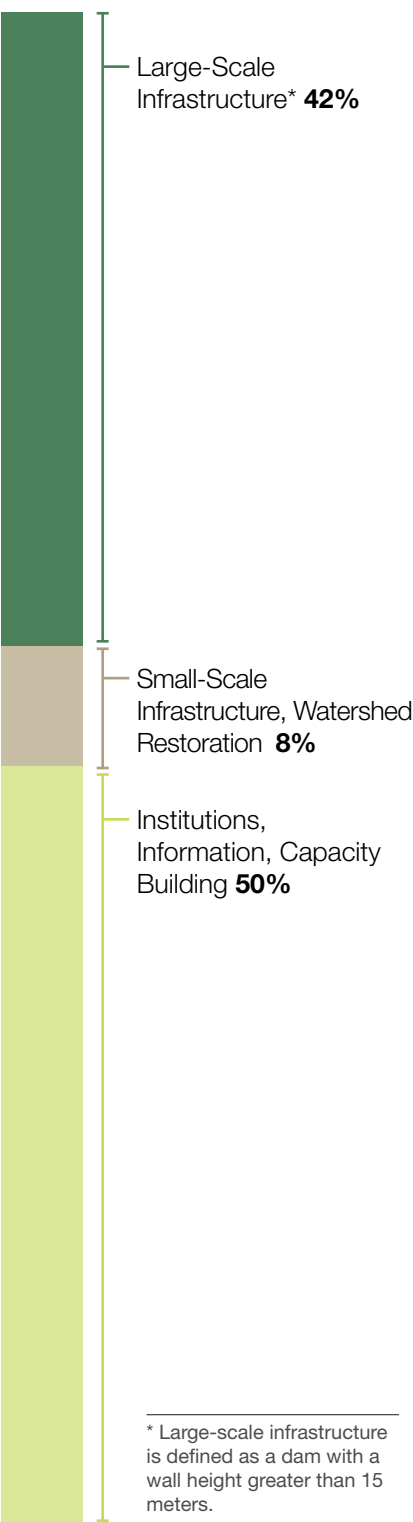


Figure 3: By Area of Support



* Large-scale infrastructure is defined as a dam with a wall height greater than 15 meters.



BALANCED SUPPORT IN PRIORITY BASINS



THE NILE BASIN AT A GLANCE



COUNTRIES

Burundi, Democratic Republic of Congo (DRC), Egypt, Eritrea, Ethiopia, Kenya, Rwanda, South Sudan, Sudan, Tanzania, Uganda



RIVER LENGTH

6,695 km



AREA

3.2 million km² (almost 6x that of France)



POPULATION

238 million



MAJOR ENVIRONMENTAL ASSETS

Sudd Wetlands, Lake Victoria



CHALLENGES

High population growth, water scarcity, soil loss, salinization

Nile Basin Program

Implementation Advanced

The CIWA Nile Basin Program follows on the heels of over a decade of multi-donor trust fund (MDTF) support to the basin through the Nile Basin Trust Fund (NBTF). The Nile countries have embarked on building a knowledge base, platform for cooperation, professional networks and an investment portfolio that encourages strategic cooperation between riparians and responds to sustainable development needs in the basin, including involvement of stakeholders and civil society organizations (CSOs). The CIWA program is enabling countries to build on this progress through support for two regional organizations:

- **Nile Basin Initiative (NBI)**, an intergovernmental transitional institution originally established by all of the riparian states and dedicated to fostering collaborative and sustainable development and economic growth through the shared resources of the Nile; and
- **Nile Basin Discourse (NBD)**, a network of CSOs that boasts membership from across the basin countries, and aims to enhance the voice of communities in the development of basin resources.





How can cooperative water resource development help Nile riparians achieve their national development goals?

Much-needed investments in the Nile riparian countries for energy generation, food production, transportation, industrial development, water supply, environmental conservation, and water infrastructure maintenance are largely to be made at the national level; however, the benefits and sustainability of many of these investments need to be enhanced from a regional perspective. If unilateral plans are made and implemented without consideration of the larger river basin context, there is a risk that some of the national investments in water-related sectors could be suboptimal and foreclose future development opportunities. Cooperative development and management of shared Nile waters can generate substantial “win-win” benefits to help unlock the full productive potential of the Nile Basin for more prosperous national and regional sustainable growth. Basin-wide cooperation is just as necessary to manage shared risks, particularly under a changing climate. Climate change threatens to exacerbate already significant climate risks and vulnerabilities within each riparian country and requires a cooperative basin-wide approach to be effectively addressed in order to make sustainable progress toward national development goals.

The Nile is the primary source of water for many riparians, particularly those in downstream reaches – Egypt receives 97% of its freshwater from the Nile; Sudan 91%.

Ethiopia has the second largest undeveloped hydropower potential in Africa, after the DRC. 20% of this power is located on the Blue Nile and, combined with power trade, provides the least-cost energy source for Egypt, Sudan, South Sudan and Ethiopia.



What will CIWA support achieve?

Through the NCORE Project, CIWA facilitates cooperative water resource management and development in the Nile Basin through the provision of targeted technical assistance to the NBI member countries and broader stakeholders. CIWA's aims are to aid cooperative activities, improve integrated water resources planning and management, and identify and prepare studies of potential investments of regional significance. By increasing understanding of regional hydro variability and climatic conditions through the NBI and NBD projects, including through cooperative preparation of development projects of regional significance, the project contributes to sustainable, climate-resilient growth in the Nile riparian countries and in the basin overall.

The NBI has three centers:

- The Nile Secretariat in Entebbe, Uganda
- The Nile Equatorial Lakes Subsidiary Action Program-Coordination Unit (NELSAP-CU) in Kigali, Rwanda
- The Eastern Nile Technical Regional Office (ENTRO) in Addis Ababa, Ethiopia

The **Nile Cooperation for Results (NCORE)** project, financed through the NBTf (US\$16.5 million)¹ and CIWA (US\$14.5 million) became effective in February 2013. The NCORE project is made up of three components that are implemented by the three NBI centers and leverage the comparative advantage of the center implementing it. The Nile Basin Initiative Secretariat (Nile-SEC) advances water resources management and builds a platform for cooperation, while the Nile Equatorial Lakes Subsidiary Action Program Coordination Unit (NELSAP) and the Eastern Nile Technical Regional Office (ENTRO) expand the investment portfolio in the basin and provide analytical products around development issues.

The NBTf portion of the NCORE project, and the NBI's most substantial source of donor funding historically, closed in 2014, with the CIWA portion of the project continuing. The Nile Basin countries have agreed to increase their annual contributions to the NBI to cover its core costs by 2017. In the meantime, CIWA support to the NBI allows the NBI to continue to deliver services to its member countries and undertake new management and investment initiatives in this interim period.

Highlights of progress made by NCORE in the past year are as follows:

- *Nile Basin cooperation and dialogue were advanced*
 - The 4th Nile Basin Development Forum (NBDF) organized in Nairobi by the three centers was attended by 500 participants including members of the Nile-COM, Nile-TAC, permanent secretaries and government officials from member countries, experts, academicians, practitioners, development partners, civil society, government staff and journalists, among others.
 - National Focal Points received training to facilitate multi-stakeholder dialogues and review NBI's national level coordination strategy.
 - National Level Forum Meetings were held to engage national stakeholders from key sectors relevant to NBI work, and country missions were undertaken to engage government representatives in water-related sectors such as agriculture, foreign affairs, budget, environment, and energy.
 - Nile-SEC conducted functionality assessments of national NBI offices in seven member countries to assess how to better connect with its countries.
- *The Nile Decision Support System (DSS) was made more accessible to users*
 - Additional DSS licenses were distributed in nine Nile countries, including government ministries and universities.
 - Nine national and three regional DSS training sessions have been conducted since the beginning of the project.

1. Actual NBTf funds used by the NCORE project at the time of the NBTf's closing in 2014 was US\$ 16.5 million, and not the originally allocated US\$ 18.8 million; unused funds were returned to the NBTf.

- User Community and Help Desk support helped users in ministries and universities troubleshoot technical issues and provided a platform for fostering collaboration.
- NBI facilitated the exchange of additional river flow data from Ethiopia and Uganda and climate data from Uganda to the other members.
- Expansion of the DSS included modeling tools related to climate change and tradeoff analysis and incorporated the commonly used Water Evaluation and Planning (WEAP) model.
- An online modelling portal is now being designed so that the public can have access to modelling outputs.
- *Water resources knowledge products and tools were enhanced*
 - Nile-SEC produced two flagship papers and a technical briefing note based on priority water management issues in the Nile Basin identified by the TAC as country priorities. The first of these is a consolidation of knowledge products into a technical bulletin titled “Understanding Nile Hydrology” that features mapping of actual evapotranspiration in the Nile Basin
 - Nile-SEC completed the design of a basin-wide hydromet system with the participation of the countries. Nile-SEC is now seeking funding for the implementation of the hydromet system.
 - Nile-SEC is leading efforts to advance web portals of the three centers.
 - Communications and outreach were increased, including improvements to the online, publicly accessible Nile Information System; capacity building for Nile Basin journalists and commentaries in the print media during the 4th NBDF; and various corporate publications.
 - ENTRO is developing an MSIOA tool to help countries better understand trade-offs in the development of their shared water resource. The MSIOA underwent consultative review in February 2015, and next steps are to select and package potential investments. ENTRO is exploring additional support for tools that enable better visualization of MSIOA data and results.
 - ENTRO is expanding its regional flood forecasting services to develop web applications for increasing access to regional flood forecasts. 2015 is the fifth consecutive year that ENTRO provided this service. Usership has grown to 43 organizations, including United Nations (UN) agencies that provide relief efforts in the region.
 - ENTRO scaled up its successful internship program with its fourth batch of young and mid-level professionals who gained increased capacity and provided technical support to development of the MSIOA, flood forecasting, and other ENTRO initiatives. However, with the closing of the NBTF, ENTRO does not have funds for further intern groups.
- *Water resources development was advanced*
 - NCORE is enabling NELSAP to prepare briefing materials to help countries better understand the benefits of new potential projects and to facilitate agreement between the Nile Equatorial Lakes countries to prepare new projects of regional significance involving water storage, irrigation, flood protection, and water supply. At the NEL-COM meeting

in August 2014, the Ministers agreed to advance preparation of seven new projects, bringing the total number of projects agreed by the countries for advancement with NCORE facilitation to 15.

- Of these projects, NCORE is financing the preparation of five projects of regional significance, including feasibility studies and Environmental and Social Impact Assessments (ESIAs). Firms are being selected and some have already mobilized for the Mara Valley, Ngono, Ruvironza and Kabayanda, and for the Sio Songo projects. NELSAP, in coordination with the World Bank, is planning to hold additional safeguards training for its staff and relevant authorities for the projects around the time of the kick-off of the ESIA studies. In addition, NELSAP decided to forego preparation of the Nyabanja site in 2015 when technical review by one of NELSAP's quality control panels determined that the site would likely not be as economically viable as originally projected.
- NELSAP completed a study on the expansion of power in South Sudan from a regional perspective. The study helped South Sudan to better understand its own hydropower expansion options, given the lower-cost opportunities for regional power purchase expected to emerge in the medium term. NELSAP is now working with South Sudan to agree on steps to implementing recommendations of the study.
- NELSAP held several discussions with EAPP, EAC, and interested development partners including SIDA, ADB, and Power Africa to facilitate agreements on who should provide countries with the training and technical advice, including wheeling agreements, needed to advance the regional power pool.
- ENTRO supported Sudan and Ethiopia in preparing four new watershed management interventions, with a focus on building the capacity of country-level officials in project preparation. ENTRO and the countries are now seeking investment financing to implement these investments.
- *Dam safety activities are under way in the Eastern Nile*
 - ENCOM members from Ethiopia, South Sudan, and Sudan have agreed to create national-level dam safety guidelines that correspond to the regional guidelines, establish country-level dam safety units, and have called for the establishment of a regional dam safety unit at ENTRO. ENTRO also advanced its regional dam safety training program with the development of a new set of regional dam safety guidelines, which was well received by countries in the Eastern Nile.
 - ENTRO developed a training module for dam safety as Training for Trainers for university staff in order to meet the regional demand for dam safety training that ENTRO itself is unable to meet. ENTRO is seeking additional resources to meet this increasing demand for ENTRO's dam safety program.
- *NBI provided South Sudan with a targeted package of services*
 - Design of a South Sudan hydromet system was continued.
 - Geodatabase of South Sudan information was strengthened.
 - DSS licenses were made available to South Sudan.

A US\$1.5 million CIWA grant for the **Engaging Civil Society for Social and Climate Resilience in the Nile Basin** project supports strengthening of the NBD's capacity to engage civil society members and relevant stakeholders in Nile Basin cooperation programs, processes, and dialogue toward informing and improving the effectiveness of design, implementation, and monitoring of developmental processes.

Since its inception in 2002, the NBD has evolved into a network of over 900 local and national CSOs throughout the basin working on a range of issues relevant to Nile cooperation, including environmental conservation, gender equity, livelihoods and poverty reduction.



What role does the NBD's network play in strengthening water resource management and development?

The NBD's extensive ground presence in riparian communities makes it uniquely placed to link local and regional perspectives. Stakeholder feedback and NBD assessments have identified three critical pathways the NBD network provides to improve the effectiveness of water resource management and development: (i) a bottom-up communications pipeline for elevating the voice of civil society on Nile issues and development projects to government and regional levels; (ii) a top-down pipeline for educating and informing civil society on Nile issues and development projects; and (iii) a horizontal pipeline between citizens and CSOs both within and across national borders for knowledge sharing and capacity building.



What will CIWA support achieve?

The NBD targets CIWA support toward generating results in three key areas: (i) strengthening the NBD Secretariat through development of strategies and measures for strengthening their network as informed by a detailed stakeholder mapping; (ii) improving bottom-up and horizontal communications among CSOs within their network; and, (iii) building the capacity of NBD members on priority topics such as climate change adaptation, gender equity, empowerment of women and young people for greater resilience, and general CSO organization skills. CIWA support is expected to result in stronger stakeholder engagement in a variety of regional Nile forums and projects.

Box 1: NBD Stakeholder Analysis Strengthens Its Facilitation Capacity

The NBD is undertaking a detailed stakeholder mapping of its network across 10 countries in the Nile Basin to build a broad picture of emerging issues on Nile cooperation and the evolving relationships among stakeholders. The mapping aims to identify gaps in the current stakeholder engagement process in the basin and gather guidance from stakeholders on how the NBD can best provide coordination to promote Nile cooperation and development initiatives; develop partnerships and coalitions for developing and managing stakeholder engagement; map existing expertise; identify existing gaps and opportunities in terms of funding, political support, and capacity; and assess interventions to fill the gaps.

To inform the stakeholder mapping, the NBD undertook one-day consultation workshops in 10 countries with stakeholders from CSOs, community members, government partners, private sector representatives, universities, and development partners. The NBD solicited participant input on interests, relationships, capacities, and communication modes; discussed opportunities for collaborating with the NBI to enhance public awareness on the benefits of Nile cooperation to basin communities; and built the capacity of participants on climate risk management with the aim of engaging CSOs in social and climate change resilience. The NBD is using information from these workshops to assess its communication strategy and adopt reforms to strengthen its outreach and impact.

Project implementation commenced in FY14, and the pace of implementation accelerated significantly in the second half of FY15 upon the appointment of a regional manager and staff dedicated to monitoring and evaluation, communications, information technology and social media. The NBD also rolled out its stakeholder mapping activity, described in detail in Box 1.

Following the renewal of a Memorandum of Understanding with the NBI (covering 2014-2017) for increased coordination between the two organizations, the NBD initiated support for strategic stakeholder and civil society engagement in several NBI programs including the Aswa River Basin Project and the Lake Edward and Albert Fisheries Project with NELSAP, and the Baro-Akobo-Sobat Project with ENTRO. NBD involvement is expected to increase the amount of CSO participation and outreach already planned by NBI in the project and will help NBI to ensure that the projects fully integrate local perspectives.

The NBD also collaborated with the NBI to envision a range of possible scenarios of “The Nile at 2050” as strategic foresight on Nile water governance presented at the 4th NBDF in October 2014. At the NBDF, the NBD co-convened a session under the theme of Transboundary Water Governance to emphasize how Nile cooperation depends on social capital including trust, reciprocity, common rules, norms and sanctions, and connectedness, in addition to technical innovations. Separately, the NBD contributed to the NBI-organized Nile Day celebrations in February 2015.

In FY15, in an effort to increase its institutional sustainability, the NBD actively built partnerships with regional and national organizations to develop joint programs and increase opportunities for resource mobilization. The NBD formalized relations with the Inter-Governmental Authority for Development and actively contributed to several of the organization's events. The NBD has also initiated strategic partnerships with the United Nations Environment Programme, the Africa Trust, the African Ministers of Water, and the International Union for Conservation of Nature through project concepts for strengthening the role of CSOs in water-related planning and development and environmental issues, and the possibility of resource mobilization.

The CIWA-supported US\$1 million **Nile Basin Support Program** commenced in January 2015, with the objective of providing Bank-executed implementation, technical and analytical support to CIWA grant-recipient organizations in the basin. Prior to its closing, the NBTF funded the Nile Basin Support Program, which supported an Independent Evaluation of the NBTF, technical modeling assistance for the NBI, remote sensing, a PEA of the development track of Nile activities, and other facilitation work.

As part of the support program, the Bank prepared a “Nile Story” to describe, through various modes, the results of the Nile program over the past 15 years (1999–2014) in both qualitative and quantitative form. The Nile Story describes the initial architecture and expectations of the program, and employs a “theory of change” framework to describe the actual pathway taken over time—from challenges to inputs, outputs, outcomes, and ultimately, impact. It demonstrates the breadth of the program and also delves into specific issues that warrant in-depth coverage. The storyline highlights some of the outcomes that are “above and beyond” targeted results—outcomes that were beyond expectation or that took the program into directions that were different from what was originally envisaged.

In addition, the Bank provided targeted support to the NBI for further implementation of its projects including provision of world class experts on complex river systems, hydrological modeling, spatial analysis and visualization, and hydromet systems design.

THE VOLTA BASIN AT A GLANCE



COUNTRIES

Benin, Burkina Faso, Cote d'Ivoire,
Mali, Ghana, Togo



RIVER LENGTH

1,850 km



AREA

400,000 km² (about 2x that of the
United Kingdom)



POPULATION

20 million



MAJOR ENVIRONMENTAL ASSETS

Lower Volta River



CHALLENGES

High population growth, high
exposure to severe weather events,
land degradation

**Agriculture is the main economic
activity, the main employer, and a key
engine for growth in the Volta Basin.**

Volta Basin Program

Implementation Commenced

The Volta River Basin is an economically and ecologically critical resource for its six riparian countries: Benin, Burkina Faso, Cote d'Ivoire, Mali, Ghana, and Togo. The approximately 20 million inhabitants of the basin heavily depend on its land and water resources for agriculture, animal husbandry, forestry, and energy. However, less than half of the irrigable lands of the basin are cultivated, and the basin is experiencing local and transboundary environmental degradation as a result of climate change and resource-use issues. Indeed, Burkina Faso, Ghana, and Togo rank high among the countries in Africa that are most exposed to floods and droughts. Despite these challenges, the Volta River remains one of the last large transboundary river basins in Africa without formal legal and institutional arrangements for coordinated management of its resources.

The **Volta River Basin Strategic Action Programme Implementation Project** is supported by grants of US\$3.5 million from CIWA and US\$7.2 million from the GEF. This first World Bank project for the Volta Basin Authority (VBA) will support institutional building and capacity strengthening of the river basin organization (RBO) through, for example, the drafting of a Water Charter. It will also implement on-the-ground investments in agriculture, reforestation, riverbank protection, and community livelihood improvement. An **Independent Assessment of the Volta Basin Authority** financed by a US\$0.5 million grant from CIWA will also be carried out by the Bank in order to define a roadmap for the institutional strengthening of VBA.

The Volta River Basin Strategic Action Programme Implementation Project was approved by the World Bank Board of Executive Directors in May 2015. Grant agreements were signed in August 2015 and project implementation on the ground is expected to start by October 2015.





What can a Water Charter accomplish in the Volta River Basin?

A Water Charter in the Volta Basin will continue the efforts made by the VBA to formalize cooperation and shared management of resources by the basin's member states, as well as address some of the challenges faced in this process. A Water Charter will specify the roles and responsibilities of riparian countries with respect to water resources use; strengthen the basis for VBA to promote coordinated and harmonized water policies in the basin; and define the guiding principles for improved water resources development and management for the basin, such as better integration of IWRM where transboundary resources are concerned.

Ghana's three hydroelectric plants on the Volta River have an installed capacity of 1,580 MW; Burkina Faso's two supply 30 MW. Studies by the VBA estimate the potential unexploited hydropower resources in Ghana to be 715 MW. Cooperation among riparian countries in power production and trade can provide opportunities that benefit all.



What will CIWA support achieve?

The drafting of a Water Charter through this project will support the strengthening of the political, legal and institutional capacity of the VBA and will enable it to perform its role as a basin authority.



What are the types of institutional building and strengthening activities that a new RBO needs?

In order to effectively carry out its coordination role, a new RBO requires effective communications mechanisms that target different sections of the basin's stakeholders and facilitate the exchange of information and data on the environment, water resources, and the monitoring of planned and ongoing projects in the basin.



What will CIWA support achieve?

Development of a communications strategy and plan will strengthen the functionality of the overall organization and ensure the sustainability and relevance of the VBA.



What are some of the environmental degradation challenges facing the basin?

The Volta River Basin is experiencing high levels of water quality and flow degradation, coastal erosion, increased sedimentation of rivers, invasive aquatic species, loss of soil and vegetative cover, and ecosystem degradation as a result of factors related to climate change, livelihood practices, poor governance, and mismanagement of the basin's natural resources.



What will CIWA support achieve?

Restoration of flows through river bank rehabilitation, reversal of vegetation degradation through reforestation, and the enhancement of agricultural practices through water-conserving techniques will strengthen sustainable water management and contribute directly to actual investments on the ground.



Zambezi Basin Program

Implementation Advanced

The Zambezi River Basin Program is envisaged as a series of projects at various levels across different water-related sectors within the basin. CIWA's support provides an integrating framework to tie together World Bank and other development partner-supported programs in a way that helps riparians meet their stated objectives of promoting the equitable and reasonable utilization of the water resources of the Zambezi watercourse as well as the efficient management and sustainable development thereof. The projects are designed to provide a broad program of support across the Zambezi River Basin over a ten- to fifteen-year period coalescing around the Zambezi Watercourse Commission (ZAMCOM) and the agreed objectives outlined in the ZAMCOM Agreement. The ZAMCOM Agreement provides a unifying framework for design in response to the common development goals of the riparian states and regional organizations relating to the integrated development and management of water resources in the Zambezi River Basin. The programmatic objectives are: (i) reducing the obstacles to cooperation and advancing investments; (ii) supporting the identification and preparation of strategic investment opportunities; (iii) supporting improved management of water resources to ensure sustainability and optimum utilization; (iv) supporting national level activities which relate to the development or management of shared waters; and (v) consolidating financing from cooperating partners behind an ambitious program of infrastructure development and water resource management.

The **Zambezi River Basin Management Project**, implemented by ZAMCOM, is supported through a US\$4 million recipient-executed grant from CIWA. The project aims to strengthen ZAMCOM's role in promoting cooperative management and development within the Zambezi River Basin. The countries of the basin successfully transitioned the interim ZAMCOM Secretariat in Botswana to a permanent organization based in Zimbabwe in FY14. With this transition, CIWA re-appraised the Zambezi River Basin Management Project in FY15 to confirm commitment and assess implementation capacity. Negotiations between the World Bank and the ZAMCOM Secretariat for the project concluded in February 2015, followed by grant signing in March and counter signature by the ZAMCOM Executive Secretary in May, leading to project implementation.

The project focuses on support to three key activities: (i) the Strategic Plan for the Zambezi River Basin; (ii) an Equivalence Assessment of National Waters Laws among Riparian States; and (iii) Component Three of the Zambezi Water Resources Information System Enhancement: Hydro-Meteorological Database and a DSS. Procurement has been launched for all three assignments with the call for Expressions of Interest issued, the draft Terms of Reference agreed upon, and the Request for Proposals under preparation. All are expected to be launched before the end of 2015.

THE ZAMBEZI BASIN AT A GLANCE



COUNTRIES

Angola, Botswana, Malawi, Mozambique, Namibia, Tanzania, Zambia, Zimbabwe



RIVER LENGTH

2,700 km



AREA

1.3 million km² (about 2.5x that of Spain)



POPULATION

47 million



MAJOR ENVIRONMENTAL ASSETS

Zambezi Delta, Lake Malawi/ Niassa/Nyasa



CHALLENGES

Urbanization, high population growth, income inequality, extreme weather events, land degradation, deforestation



What are the potential benefits of cooperative water management and development in the Zambezi River Basin?

A multi-sector investment analysis has shown that a cooperative approach can tremendously bolster energy security, food security, and job creation in the basin. Firm energy production could be increased by 35,000 GWh per year, providing an additional 60,000 GWh per year in average energy. An additional 343,000 hectares could be irrigated, increasing the irrigated area by almost 45 percent and creating more than 500,000 jobs in the agricultural sector. Water supplies could be secured for the drylands south of the river in Botswana, Namibia, and Zimbabwe, as well as further afield across the region. Investments in river crossings, bridges, and transport networks would generate substantial socioeconomic benefits, including improving trade efficiencies and linkages. Cooperation around strategic disaster management interventions could reduce flood and drought risk, helping avert estimated losses of up to US\$1 billion a year induced by water shocks. Cooperative water management is also critical for environmental restoration of the Zambezi Delta and improved fisheries production through systematic introduction of basin-wide environmental flows.

Coordinated operation of existing hydropower facilities in the Zambezi River Basin can increase energy production by 23% without any additional investment.



What will CIWA support achieve?

CIWA support will strengthen ZAMCOM's ability to facilitate collaborative action in its water resources in a number of ways. Following the successful establishment of the permanent ZAMCOM Secretariat in 2014, CIWA will provide support to make it a more financially sustainable and efficient basin-wide water resources institution. In order to strengthen the foundation for effective information sharing and decision support within the basin, CIWA will help revitalize the functionality of the Zambezi Water Information Management System. This will be complemented by the development of the Zambezi Strategic Plan, which will translate the strategic vision in the ZAMSTRAT—an Integrated Water Resources Management (IWRM) strategy for the Zambezi River Basin—into an actionable plan of projects and programs that are agreed upon by all riparian states.

Two intermediate outputs are expected to be completed by the UNFCCC COOP21: a design framework for the Zambezi Water Information Management System (ZAMWIS) and a consultative framework for development of the Strategic Plan for the Zambezi River Basin. These two outputs will be part of a comprehensive Africa Climate Package that comprises a collection of proposals aimed at furthering the climate change adaptation and mitigation agenda for Africa. The Africa Climate Package targets COP21 in order to attract broad international interest and gather commitment for support.

The CIWA-supported projects are providing the foundations for formulation of a collaborative effort and further project support through the GEF to support integrated flow management within the Zambezi River Basin. The proposed project would build on CIWA support and would be financed by the GEF, administered by the World Bank, and executed through the ZAMCOM Secretariat and the WWF. The proposed objective of the project is to support analytical assessments of water resources to enable equitable and reasonable use of shared water resources and guide stakeholders in the development of optimal scenarios presented in the Zambezi River Basin Strategic Plan. This objective will be carried out through a series of analytical and capacity-building exercises, namely (i) pilot programs regarding capacity building to expand environmental flows; (ii) rapid assessment of unregulated reaches of the basin; and (iii) a comprehensive integrated assessment of environmental flows of the basin.

The **Zambezi River Basin Development Project** implemented by ZRA is financed through a US\$7.5 million recipient-executed grant from CIWA. The project was endorsed by the World Bank Board of Directors in May 2014 with the objective of advancing preparation of the Batoka Gorge Hydro-Electric Scheme (HES) and strengthening cooperative development within the Zambezi River Basin. The project includes several activities intended to improve the quality of the Batoka Gorge HES investment by ensuring that appropriate environmental and social considerations are in place and to facilitate mobilization of the required resources to address the prevailing power supply shortages within the Southern African Power Pool (SAPP). ZRA, a binational entity established by Zambia and Zimbabwe, was tasked by the countries to advance preparation of the Batoka Gorge HES.

Coordinated operation of the Batoka Gorge HES with the existing Kariba Dam is expected to increase overall annual energy production by 8,900 GWh.



Why is the Batoka Gorge HES important to the Zambezi River Basin?

The Batoka Gorge HES can potentially generate 1600 MW and secure the energy needs of more than 1.2 million households in Zambia and Zimbabwe. The project was conceived in 1961 as part of a cascade with the original Kariba Dam complex, but was stalled by a disagreement between the two countries regarding a historical debt related to the Kariba dam. The delay has had a real economic and financial cost to both Zimbabwe and Zambia, with losses estimated at US\$700 million annually or US\$7 billion cumulatively since the original planned commission date of 2002. Implementation of the Batoka Gorge HES could significantly reduce the energy gap in southern Africa and establish a substantial source of revenue for Zimbabwe and Zambia.



What will CIWA support achieve?

CIWA was a key player in facilitating resolution of the decade-long impasse between Zambia and Zimbabwe on the Batoka Gorge HES by supporting the analysis that estimated foregone benefits from delayed implementation. Current support focuses on mobilizing technical and operational resources needed to improve the quality and advance the development of the hydroelectric scheme (HES), by conducting a feasibility study and an ESIA, establishing a bankable design with associated engineering studies, providing Transaction Advisory Services, and providing legal and institutional support to the ZRA.

Box 2: CIWA Contributes to Kariba Dam Rehabilitation Project

An activity to conduct a Dam Break Analysis for the Zambezi River prepared by CIWA under the Zambezi River Basin Development Project will now be undertaken by the Kariba Dam Rehabilitation Project. After more than 50 years of providing power for the southern Africa region, the 1830 MW Kariba Dam on the Zambezi River now requires a series of rehabilitation works for its continued safe operation. A failure to invest in the timely rehabilitation of the dam will result in the gradual degradation of key dam safety features to a level not acceptable by international standards, which could potentially lead to a devastating dam failure. Given the important contribution of the Dam Break Analysis to dam operators in the Zambezi River, shifting this activity to the Kariba Dam Rehabilitation Project will allow the activity to be fully financed to enable a basin-wide analysis, which would draw on parallel activities financed by the International Development Agency (IDA) in Malawi and Zambia, along with activities financed by the United Kingdom Department for International Development (DFID) in Mozambique, aimed at improving the underlying topographic data. These will help to enhance the outputs of the dam break analysis and strengthen collaborative linkages between the riparian states and regional bodies.

Lake Kariba, the reservoir behind Kariba Dam, plays an important role in ensuring the stability of the SAPP and in regulating flows on the Zambezi River.

The Governments of Zambia and Zimbabwe have mobilized financing from the African Development Bank, the EC, the government of Sweden, and the World Bank to support the ZRA in implementing the US\$294 million rehabilitation project.

In FY15, all major procurement activities have been concluded and the engineering studies, environmental and social assessment, and the transaction advisors have all been appointed. The options assessment has been prepared and the final feasibility studies are expected to be completed by March 2016. In FY15, CIWA allocated an additional US\$1.5 million to the ZRA grant to allow sufficient funds to ensure the scope of work under the contract for the Transaction Advisors was fully funded, bringing the total project cost to US\$7.5 million. The proposed Dam Break Analysis has also been excluded from the CIWA grant and will be financed through the Kariba Dam Rehabilitation Project using World Bank-administered funds provided by Sweden as a contribution to the rehabilitation project.

The US\$1 million, bank-executed **Zambezi River Basin Support Program** facilitates sustainable, climate-resilient cooperative management and development of water resources within the Zambezi River Basin through evidence-based analytical work and timely technical assistance. The Climate Change Assessment of the Energy-Water Nexus in the Zambezi River Basin activity assesses the potential impacts of climate change in the Zambezi River Basin through a scenario-based analysis within the regional context of the energy-water nexus. This includes further development of the WEAP models that supported the MSIOA and Enhancing the Climate Resilience of Africa's Infrastructure, and development of the Long-Range Energy Alternatives Planning (LEAP) model, which simulated the SAPP. The results demonstrate the feedback mechanisms between water management and development in the Zambezi River Basin and power generation in southern Africa, illustrating the trade-offs between irrigation and hydropower. The LEAP model is further expected to provide estimates of greenhouse gas emissions under different development scenarios in the SAPP linked to development options in the Zambezi River Basin and will provide input into the formulation of the Zambezi Strategic Plan. The analytical program has also prepared a case study, the "Political Economy Study on the Context of Cooperation in the Zambezi River Basin," which is being further developed through a book entitled *Zambezi River Basin: Pathways for Sustainable Development*. This is a cooperative effort being carried out with ZAMCOM Secretariat and the International Water Management Institute for delivery in early 2016. Outputs from a third analysis entitled "The Institutional Assessment of the Zambezi River Authority" completed by the Bank for the ZRA in FY14 have been adopted by the ZRA Board; in FY15, the ZRA prepared to undertake a follow-up, recipient-executed activity.

The analytical program has provided a useful mechanism to attract additional support to meet the objectives of the Zambezi River Basin Program. This includes additional grant financing provided by Sweden as part of their contributions to the Kariba Dam Rehabilitation Project. A program around the Hydropower Sustainability Assessment Protocol will support the members of the Joint Operating Technical Committee of the Zambezi Dam Operators and other key associations (Electricity Supply Commission of Malawi, ZAMCOM, and SAPP) to understand and apply the Hydropower Sustainability Assessment Protocol as a tool for development and operation of hydropower in the Zambezi River Basin. The International Hydropower Association is being retained to execute a two-year program with the World Bank to help the riparian states of the Zambezi River develop and utilize the Zambezi hydropower potential in a sustainable and responsible way to ensure its benefits for present and future generations.

Niger Basin Program

Implementation Commenced

Along the 4,200 km of its course, the Niger River and its tributaries are the economic mainstay for the nine countries in the active Niger Basin—seven of which are among the 20 poorest in the world. The Niger River is strategically important in particular for Mali, Niger, and Nigeria, which account for 80 percent of the surface area of the basin. For thousands of years, the river has supported the riparian population with diverse, rural livelihoods such as farming, cattle grazing, and fishing, and is an important lifeline in the arid and semi-arid lands of the Sahel. Food security and social well-being depend mostly on unpredictable and extreme rainfall patterns, particularly in the Sahelian part of the basin. These challenges are further intensified by climate change. Inadequate storage in the Upper Basin and poor hydromet systems for predicting daily, seasonal, and annual rainfall, along with weak institutional capacity, hinder the ability of people in the Niger Basin to adapt to climate change.

In the Niger Basin, countries understand the need for investment and cooperative action to both overcome the water and development challenges they face and to build climate resilience. In addition to their own national-level plans and investment pipelines, the countries have taken a number of important steps toward shared planning, management, and development of the Niger Basin by establishing the Niger Basin Authority (NBA) in 1987 as a successor to the Niger River Commission, established in 1964; adopting the Niger Basin Water Charter in 2008; and developing and approving the 2007 Sustainable Development Action Plan (SDAP), which emphasizes development of socioeconomic infrastructure, preservation of ecosystems in the basin, and capacity building and stakeholder participation. A related twenty-year US\$8.2 billion Investment Program was adopted by countries in 2008. Niger Basin countries continue to exhibit a high degree of political will for cooperation—particularly on water resources management and development and implementation of the SDAP.

CIWA support in the basin is a combination of informing infrastructure development and institutional strengthening and builds off of a stable partnership between the World Bank, the NBA and its member states, as well as coordination with key development partners. CIWA support for riparian countries aims to help improve the quality of investments in the basin—Kandadji Dam, Fomi Multipurpose Project, development in the Office du Niger, and other infrastructure under preparation or consideration—by supporting cutting-edge analysis, particularly with respect to the environmental and social impacts of infrastructure development; knowledge development that expands international good practice from other regions; and facilitating the dialogue around decision making in the basin.

THE NIGER BASIN AT A GLANCE



COUNTRIES

Algeria, Benin, Burkina Faso, Cameroon, Chad, Guinea, Ivory Coast, Mali, Niger, Nigeria



RIVER LENGTH

4,200 km



AREA

1.5 million km² (about 4x that of Germany)



POPULATION

100 million



MAJOR ENVIRONMENTAL ASSETS

Niger Inner Delta Wetland



CHALLENGES

Income inequality, extreme poverty, political instability, sub-regional security threats, extreme weather events



Why is it important for the Niger Basin to have a strong Niger Basin Authority (NBA)?

The US\$7.5 million **Niger River Basin Management Project** was approved by the World Bank in January 2015. With these resources, the NBA aims to strengthen the institutional framework for regional cooperation in the Niger Basin through two main channels: strengthening the NBA to sustainably deliver its mandate and facilitating evidence-based decision making in the Fomi Multipurpose Project.

The NBA is an RBO mandated to promote cooperation among its member countries to develop and manage the Niger Basin's resources. It monitors the conditions of the basin, provides services such as flow forecasting and neutral analysis of planned water abstractions, and mobilizes financing and high-level expertise for relevant studies, analyses and reviews to ensure technical quality and maintain good practice in the basin.

Guided by the 2007 SDAP, several large multipurpose dams are under planning and construction at different points along the Niger River. Given the transboundary nature of these projects, the NBA has an important role in facilitating discussions among riparians on their development plans, including evaluation of trade-offs and sharing of costs and benefits. Once construction is complete, the NBA is well positioned to coordinate their operation, which, as evidence has shown, can help maximize benefits across the basin and more effectively respond to climate change impacts as well as growing pressure on the water resource base. To fulfil its mandate effectively, it is important for the NBA to have the requisite technical capacity, financial sustainability and legal authority, and to have strong links to the governments of its member countries.



What will CIWA support achieve?

CIWA support contributes to strengthening the NBA on multiple fronts. To enable the NBA to improve its financial stability, which is crucial for ensuring effectiveness and institutional sustainability, CIWA supports analysis and operationalization of select financing mechanisms that will develop a sustainable income stream for the NBA. To strengthen the institutional provision for enhanced coordination of transboundary water infrastructure in the basin, including of new dams that are coming online, CIWA supports finalization and adoption of Annex 2 of the Niger Basin Water Charter. Annex 2 of the Water Charter, which was approved by NBA member countries in 2008, contains specific provisions for coordinated management mechanisms for large infrastructure.² In addition, to enable the NBA to provide oversight in the technical design and construction of large transboundary dams, CIWA is supporting a Panel of Experts for Dam Safety and Safeguards, thereby filling a crucial institutional gap.

2. Annex 2 of the Niger Basin Water Charter states: "Legal instruments for the coordinated management and optimization of large infrastructure, dispute resolution and arbitration enforcement have been developed and adopted by riparian countries."



What value does evidence-based decision making bring to the Fomi Multipurpose Project?

While Fomi has tremendous potential to regulate flows for downstream irrigation, urban water supply and energy generation, the project has potential environmental and social complexities. These include the resettlement of up to 45,000 people, environmental impacts in the perimeter of the reservoir in Guinea, and changes to the flood regime in the ecologically rich and sensitive Niger Inner Delta in Mali. To mitigate the risks of this project and to realize the full developmental potential, it is necessary for stakeholders in the basin—particularly Guinea and Mali—to have access to the best available knowledge and to have a platform for discussion to maximize benefits and minimize costs and impacts for all, as international good practice on planning for large transboundary infrastructure emphasizes the importance of evidence-based decision making beginning from the early stages of a project.

Benefits from Fomi Multipurpose Project's current design:

- 6.1 billion m³ water storage in Guinea
- 90 MW hydroelectricity
- 211,000 ha increased downstream dry-season irrigation potential
- 40 m³/s recommended dry-season environmental flows ensured

The Fomi Dam is a priority for the African Union, included in its PIDA Priority Action Programme.



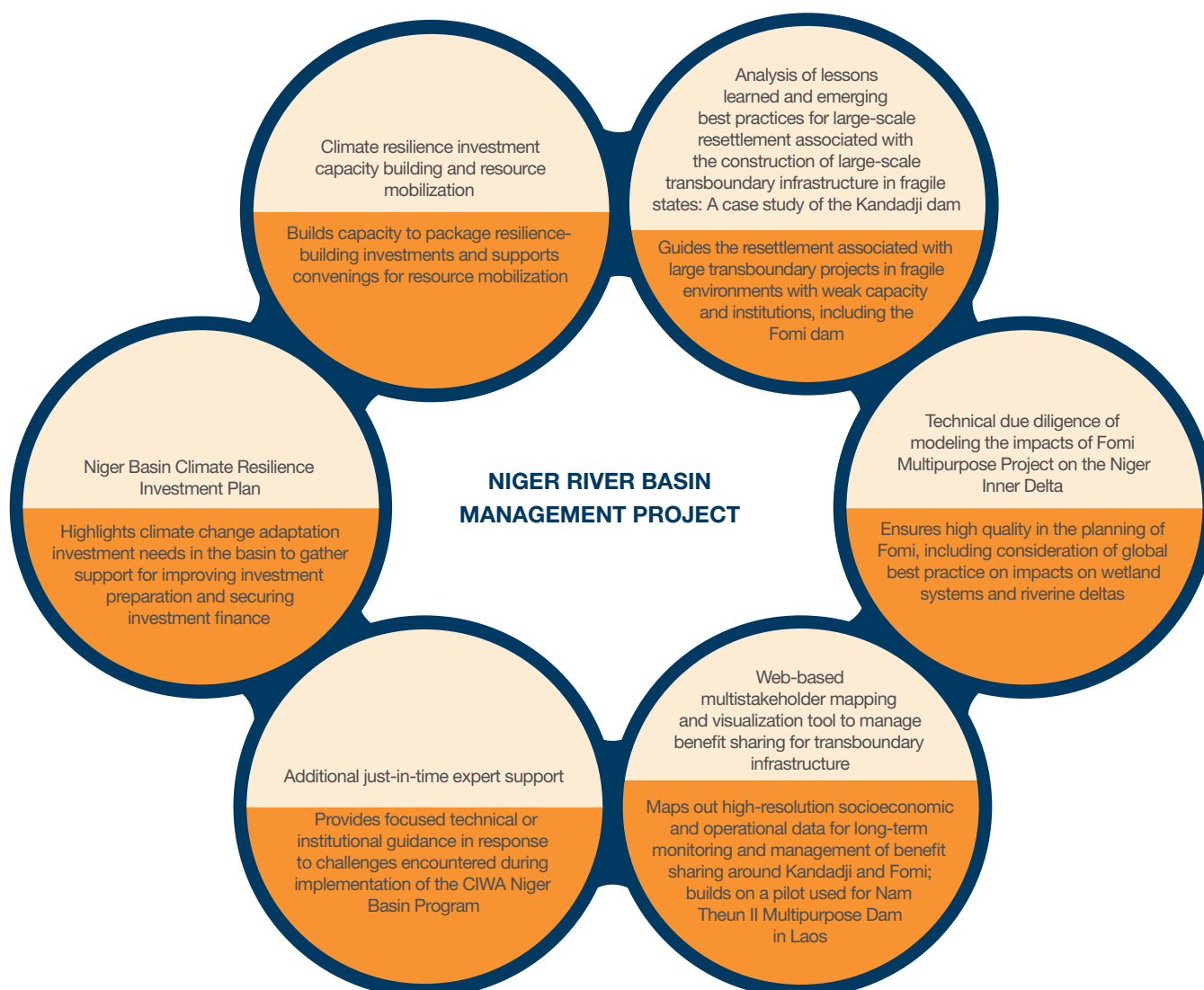
What will CIWA support achieve?

With CIWA support, the NBA is facilitating a process with Guinea and Mali to design and implement a project preparation roadmap, which marks clear decision-making points and encourages strong stakeholder engagement, in order to support an inclusive evidence-based decision-making process for the Fomi Multipurpose Project. CIWA supports a suite of studies and technical assistance that informs the design of a robust institutional framework for financing, preparation and operation of Fomi. In addition, CIWA supports advanced modeling of ecosystem services in the Niger Inner Delta under different flow regimes, as influenced by Fomi Dam operations, upstream water abstractions, and different climate change scenarios. Combined with details such as sediment transport patterns of the river, groundwater recharge patterns, and the overall wetland hydrology, the modeling exercise will seek to estimate socioeconomic impacts on livelihoods and ecosystem services so stakeholders can devise a range of possible mitigation measures in accordance with acceptable levels of risk.

Early discussions among member countries on the CIWA-supported Niger River Basin Management Project helped clarify national positions and interests, while potential resource availability provided an impetus for collaborative development and equitable benefit sharing, signaling the start to a truly cooperative process. During preparation of the project, the NBA held several consultations with the governments of Guinea and Mali, and with the Inter-Ministerial Committee for Fomi Dam, to ensure full integration of the project into country systems. The NBA is currently advancing the procurement processes for key contracts for project implementation.

CIWA is complementing the grant to the NBA with the **Niger Basin Support Program**, comprising US\$1 million in Bank-executed analytical support to further strengthen the impact of NBA-executed activities. This analytical support is provided through five activities as illustrated in figure 4. Procurement for the analytical activities has been completed and implementation of the activities is well under way.

Figure 4: The Niger Basin Support Program



Box 3: CIWA Advances Lessons Learned on Large-Scale Resettlement

Resettling thousands of people and managing benefits from large-scale transboundary infrastructure in a fragile state is complex and controversial, and not something governments and water managers are faced with every day. The Nigerien authorities have sought to adopt international good practice in the development of priority large-scale transboundary infrastructure in the Niger Basin to ensure their equitable and sustainable implementation.

On this front, CIWA is supporting an analysis of overall institutional arrangements and oversight mechanisms, financial compensation, basic services, housing, land-tenure, grievance mechanisms, and other practices designed to reduce the social impacts of transboundary infrastructure in fragile states. The first phase of resettlement of 5,000 people for the Kandadji Dam will be taken as an in-depth case study and juxtaposed alongside similar projects in fragile states to derive a compilation of lessons learned that can provide valuable guidance for future infrastructure-related large-scale resettlement, specifically in weak institutional settings.

In a complementary activity, CIWA is partnering with the University of Berne and the Swiss Development Cooperation to develop a multi-stakeholder mapping and visualization tool to manage sharing of benefits from transboundary infrastructure. This management tool is designed to support the long-term monitoring and management of benefits to a very high resolution, tracking details at the village and household levels. It will build upon a pilot originally carried out for the Nam Theun II Multipurpose Hydropower Dam in Laos, which used geographic information systems (GIS) to map detailed socioeconomic and operational data into an integrated platform. It is envisaged that this web-based tool would be rolled out in the first phase to monitor the socioeconomic impacts around Kandadji. In a second phase, this tool will be applied in the implementation of Fomi.

Both activities facilitate the sharing of lessons with stakeholders in the Niger Basin and in other basins in Africa and around the world.



Box 4: Niger Basin Countries Prepare Climate Resilience Investment Plan ahead of COP21

The people of the Niger Basin face many challenges: extreme poverty, food insecurity, lack of access to electricity, inadequate water supply, degradation of ecosystem services, instability, and insecurity. These challenges are exacerbated by climate change. The Niger Basin currently experiences extreme precipitation variability and a long-term trend of increasing aridity and likely decreasing precipitation. Climate change-induced temperature rises will increase evapotranspiration and extreme weather events such as floods and droughts, and the resulting impacts on runoffs are still uncertain. Inadequate storage in the Upper Basin, poor hydromet systems to predict daily, seasonal, and annual rainfall, and weak institutional capacity hinder the ability of the Niger Basin's population to adapt to this new climate reality.

Niger Basin countries are interested in using the platform of the UNFCCC COP21 Paris in November 2015 to bring international attention to the basin's acute climate adaptation needs and the challenges it faces in building climate resilience. The investment needs of the Niger Basin countries are extensive, and resource mobilization has been a marked challenge, due in part to the low level of investment preparedness in the basin. Both improved investment preparation and resource mobilization are critical to advancing development, ending poverty, and building climate resilience in the Niger Basin.

In their commitment to work together to address these challenges, the Niger Basin countries, with support from the NBA and CIWA, are preparing a Climate Resilience Investment Plan. The Plan will be a vehicle to raise financing and gain support from development partners to meet the enormous investment needs for climate change adaptation and resilience building in the basin.







TARGETED SUPPORT FOR HIGH-IMPACT OPPORTUNITIES

More than 20 of Africa's estimated 37 transboundary aquifers are located in the SADC region.

Over 70% of the 250 million people living in the SADC region rely on groundwater as their primary source of water.

SADC Groundwater Management Program

Implementation Commenced

Recognizing the SADC region's increasing dependency on groundwater for both domestic and commercial water needs, SADC is establishing a regional Groundwater Management Institute (GMI) to support implementation of measures envisaged under the SADC Groundwater Management Program and facilitate regional cooperation around groundwater development and transboundary aquifer management. CIWA support for the SADC aims to develop the SADC GMI into a regionally recognized center of excellence, strengthen transboundary and national institutions to improve regional cooperation, and build capacity for sustainable transboundary and national groundwater management in the ministries and departments responsible for groundwater in SADC member states.

The Grant Agreement for this US\$10.2 million project (US\$2 million from CIWA, US\$8.2 million from GEF) was signed in January 2015, and the project became effective in June 2015. An inception meeting to launch the project is expected to take place in early FY16. Hiring of the Executive Director for the SADC GMI is currently under way.

Lesotho-Botswana Water Transfer Study

Implementation Commenced

The Lesotho-Botswana Water Transfer Study is a catalytic study to investigate potentially transformative development options for the transfer of water from the Lesotho Highlands to Botswana. The study will explore additional transfer options from the Lesotho Highlands and the development of additional, sustainable revenue streams based on renewable water resources for Lesotho, one of the least developed countries in southern Africa. This would help Botswana make a more informed decision with respect to securing water supplies and would consolidate Lesotho's position as the water tower of southern Africa. The concept builds on the historical foundations of bilateral agreements in the Orange-Senque River Basin and offers a more strategic regional analysis of long-term water supply security considerations in southern Africa.

The CIWA grant for the Lesotho-Botswana Water Transfer Study was signed in February 2015 by the Minister of Finance in Botswana on behalf of the three riparian states of Botswana, Lesotho, and South Africa, and the activity is currently being implemented. Procurement of the consultants to undertake the study was advanced in parallel with grant processing, enabling the contract to be awarded when the project becomes effective. A further phase of this assignment will expand the study to carry out a comparative analysis of options from the Zambezi River Basin, supported by the balance of funds under the grant.

The Kingdom of Lesotho is landlocked, completely surrounded by South Africa; more than 80% of the country is 1,800m above sea level.

Lake Chad Policy Dialogue

Concept Note Approved, Preparation Advanced

Increased abstraction from Lake Chad and its tributaries due to population growth, urbanization, and irrigation over the past four decades has caused significant decline in the size of the lake, reducing its surface area from 25,000km² forty years ago to about 2,500km² today. Lack of knowledge regarding the region's hydrogeology combined with climate change impacts result in tremendous uncertainty about the future of the lake, seriously threatening the region's vulnerable populations and already endangered ecosystem. The activity on the Lake Chad Basin aims to help the riparian countries of the Basin and the Lake Chad Basin Commission (LCBC) better understand the uncertainties about the future of the lake and define the framework for a development plan. By enabling the countries to conduct a strategic review of different development options, this activity will advance the riparian countries toward a future where they identify strategic and bankable investment opportunities with regional and national benefits, specifically enhancing the livelihoods and reducing the vulnerability of the populations dependent on the lake's resources. The activity will support key strategic and economic studies to provide evidence for cooperation among riparians, inform donor coordination, and organize regional policy dialogue and stakeholder consultations. To enable riparians of the basins to make informed decisions for optimal resource utilization at the basin level, this activity will build and improve hydrological data, forecasting, knowledge, and tools, all of which are fundamental to understanding the characteristics of transboundary aquifers in the basin and their interaction with surface water. These will be complemented by capacity-building activities to facilitate the use of newly introduced hydrological tools and create ownership at the basin-level. This work, along with a video highlighting climate resilience challenges faced by people relying on Lake Chad will be featured during the UNFCCC COP21 in November 2015.

A concept review for this activity was completed in April 2015 and further streamlined its objectives and design. Project implementation is now being advanced in close collaboration with the LCBC and with riparian countries Chad, Cameroon, Central African Republic, Niger and Nigeria.

The area of Lake Chad has dramatically decreased over recent decades: it is now approximately 10% of its size in the 1970's

20 million people rely on ecosystems services provided by Lake Chad for their livelihoods.

Okavango Multi-Sector Investment Opportunity Analysis (MSIOA)

Implementation Commenced

The Okavango MSIOA is included in the PIDA Priority Action Programme.

The three Okavango riparians - Angola, Botswana and Namibia - are middle income countries with high inequality. Poverty is high in the Okavango basin and people typically rely on rain-fed agriculture and riverine ecosystem services.

The Okavango Delta is one of the largest RAMSAR sites in the world. Tourism in the delta is an important revenue stream for Botswana.

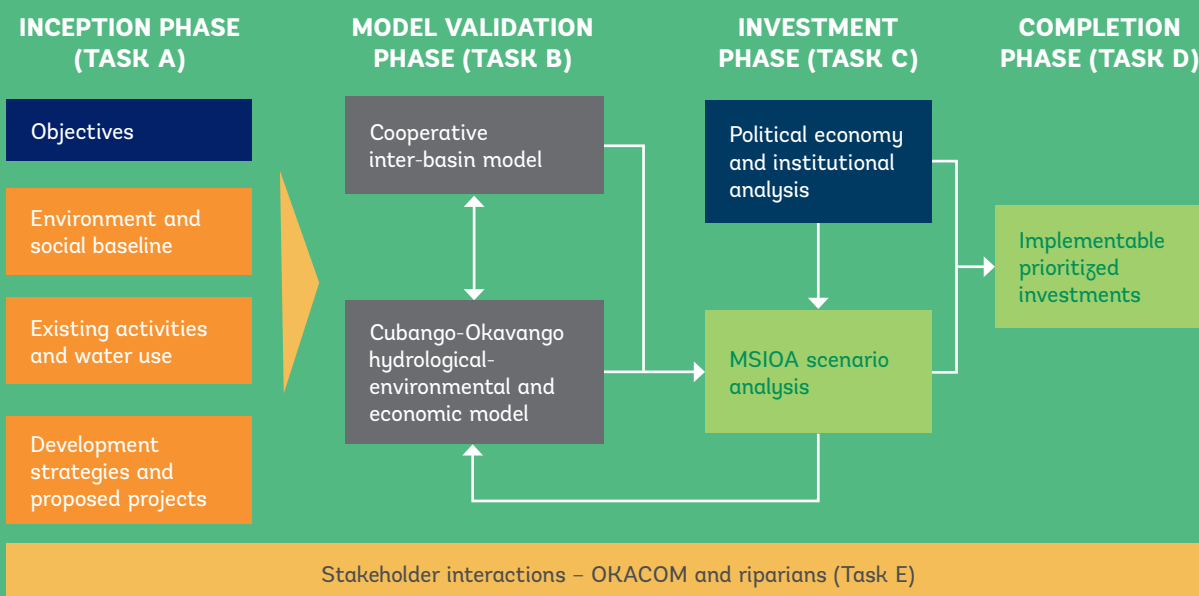
The objective of the Okavango MSIOA is to undertake a multi-sector analysis of proposed investment options in the Cubango-Okavango River Basin and evaluate options to meet the development needs of the riparian countries in such a manner as to safeguard the ecological integrity of the basin, particularly the Okavango Delta, a biodiversity-rich wetland ecosystem with significant social, economic, and ecological value. While many studies have focused on environmental protection of the Okavango Delta, the MSIOA will address the challenge of delineating a development pathway that meets national development and poverty reduction objectives while sustaining the basin's ecosystem services and maintaining the Cubango-Okavango's global value. It is motivated in part by the finding that the environmental integrity of the Okavango is threatened more by poverty than by development and that the major challenge is thus to raise the living standards of impoverished populations living in the basin. To this end, the study will explore ways to achieve cooperative benefits that exceed the benefits of inward-looking approaches in individual countries and provide economic development strategies to maximize such cooperative benefits.

The concept note for the Cubango-Okavango MSIOA was approved in September 2014 and the consultants commenced work in April 2015 following a consultative, collaborative selection process administered by the World Bank and involving the OKACOM Secretariat and members of the Basin Steering Committee. Consultative meetings were held in Windhoek, Namibia and Luanda, Angola in preparation for an inception meeting in Maun, Botswana in May 2015. The inception report has been prepared and used to facilitate formulation of a collaborative program defining a Sustainable and Equitable Investment Program for the Cubango-Okavango River Basin. This includes contributions from the DFID-financed Climate Resilient Infrastructure Development Facility and Swedish support to the OKACOM Secretariat. The first round of national consultations are being carried out in September with the OKACOM Secretariat, DFID's Climate Resilient Infrastructure Development Facility and the national coordinators to introduce the approach, principles, and methodology, as well as to ensure linkages with the Vision process supported through CRIDF. Challenges related to information availability and accessibility have been acknowledged, highlighting the need to build databases to systematize available information for OKACOM to better facilitate cooperative use of the basin's resources. The analysis will undergo a consultative process before completion of the final MSIOA report, expected in July 2016.

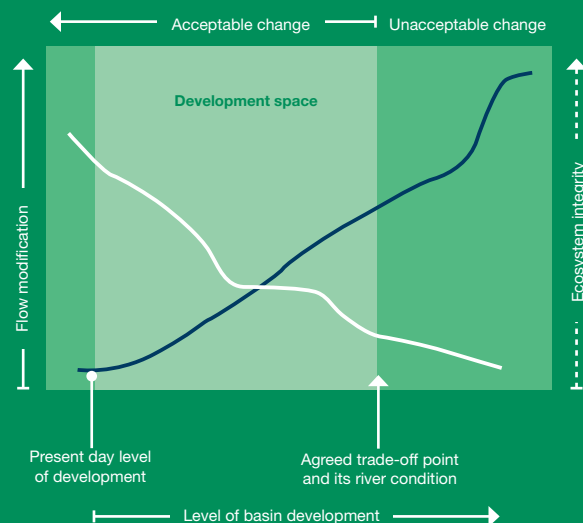
Box 5: How Will the Okavango MSIOA be Conducted?

The Okavango MSIOA will build on the work of the Cubango-Okavango River Basin Transboundary Diagnostic Analysis (OKACOM, 2011). The approach will develop a rainfall runoff model for the basin and use it to assess 20 different development scenarios, their repetitive impacts on inflows into the Okavango delta, and the potential environmental impacts associated with these. This will be coupled with economic inputs through a Hydro-Economic Model, which will provide the economic values of the outcomes of the scenarios.

PHASES OF DEVELOPMENT OF THE MSIOA



THE DEVELOPMENT FRAMEWORK CONCEPT FOR VISUALIZING DESIRABLE DEVELOPMENT OUTCOMES



DEVELOPMENT FRAMEWORK

The Development Space has been defined as a hypothetical construct to inform the potential growth trajectories within the basin.

The approach to the MSIOA acknowledges and appreciates the value of the underlying objectives and positions development opportunities within this framework against three axes:

- **Axis 1** - analysis of national, sector-specific development objectives
- **Axis 2** - analysis of basin development objectives ('development space')
- **Axis 3** - rationalize regional resource distribution via intra-basin development optimization (climate change)
- **Axis 4** - analysis of linkages and integration between axes 1, 2 and 3.

Water Resources Management in West Africa (ECOWAS)

Implementation Commenced

The 25 transboundary basins found in West Africa account for 80% of the region's surface waters – many countries in the region are highly dependent on water originating in other nations.

In a context of underutilized and highly variable water resources, chronic food insecurity, rapid population growth, and low access to electricity, West Africa needs to develop the productive use of its water resources. In order to do this, countries must coordinate the management of numerous international river basins, making cooperation a key component in the sustainability of these water resources. Awareness of this issue has motivated West African countries to support an IWRM approach to water governance and has increased focus on the consolidation of efforts through regional initiatives in policy development, institutional support, and guidelines for addressing management and investment opportunities in these shared basins. Established transboundary basin organizations are being called upon to embrace new approaches to joint management (e.g. IWRM) and new organizations are being established to focus on providing a transboundary perspective to water resources management and development. ECOWAS has been at the helm of these efforts through work accomplished by its Water Resources Coordinating Center (WRCC) to set up and advance policy and organizational structures.



CIWA support of key stakeholders in West Africa, such as ECOWAS and RBOs, will help to improve capacity, information, and investment opportunities in transboundary water management and development in the region. More precisely, it will strengthen the ability of ECOWAS to facilitate, coordinate, and catalyze transboundary water resources management and development in support of food, energy security, and climate-resilient growth in West Africa through a set of technical assistance activities that build the capacity and instruments within ECOWAS to respond to its mandate of promoting investments, reforming governance, and promoting cooperation and regional integration in the water sector.

Specifically, CIWA funding will:

1. *Support member capacity building*

- By assisting ECOWAS to deliver and build capacity of member states and international RBOs in water resources management and development
- By developing a sustainable financing mechanism for the Mono Basin Authority (MBA)

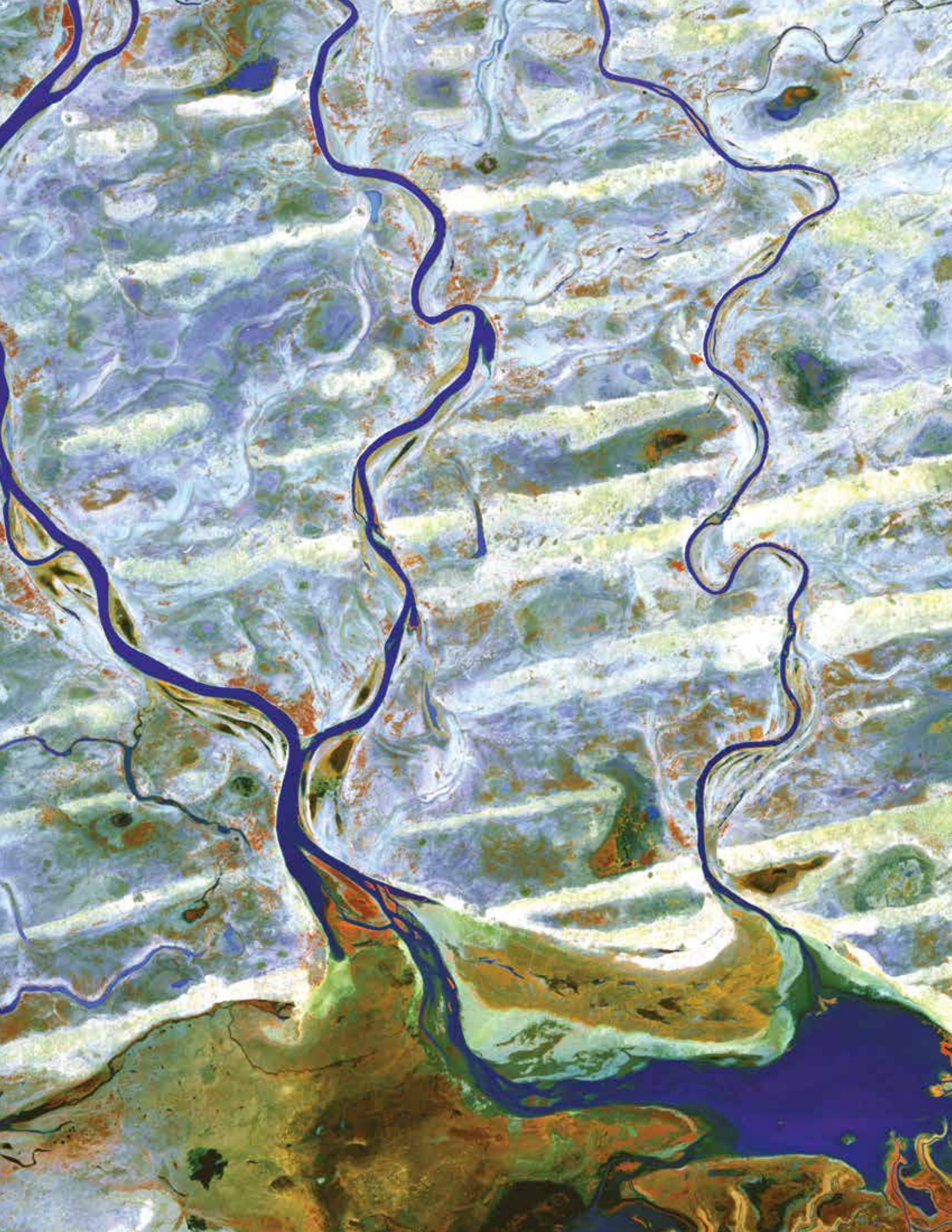
2. *Facilitate transboundary water resources planning*

- By helping ECOWAS better support member states with transboundary water resources planning through the understanding of key ecosystems and the pivotal role of transboundary water resources management for growth in the region
- By developing an atlas of the Fouta Djallon Highland (FDH) to present the state of this natural resource, its uses, and the issues involved in its management

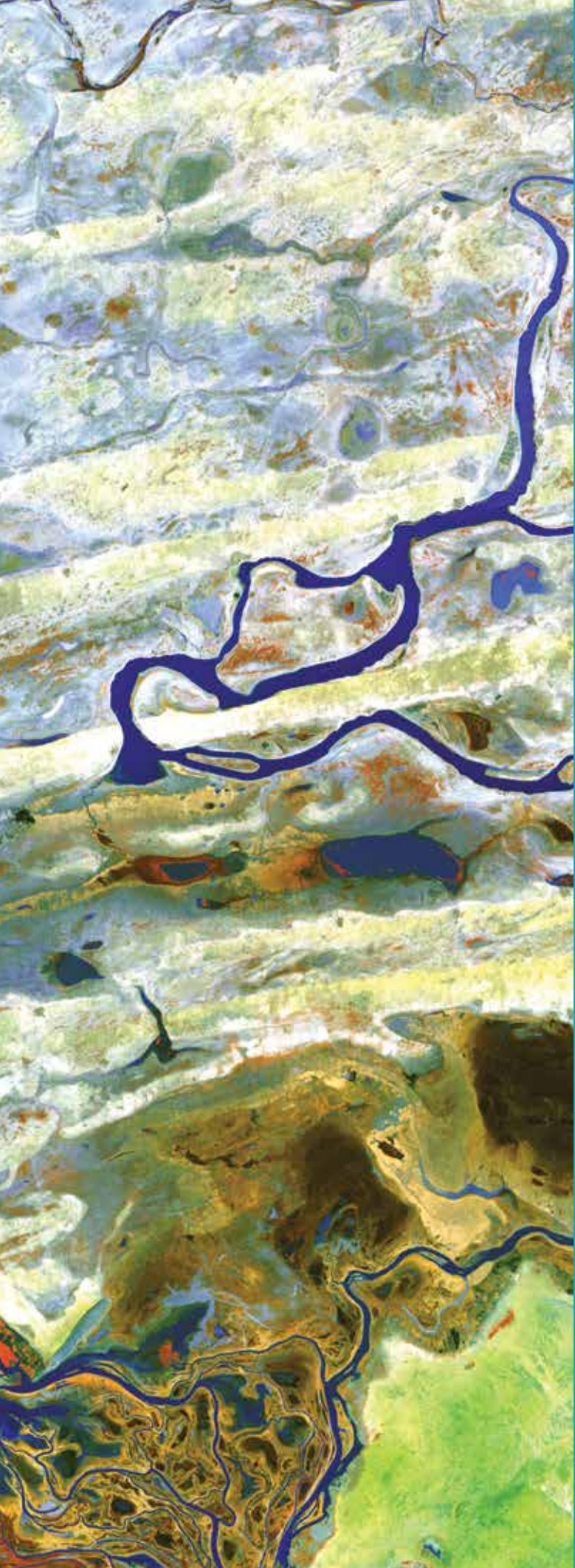
3. *Support the integration of regional policy*

- Through the dissemination of the ECOWAS Directive on Shared Water Infrastructure and its harmonization with national policies

The terms of references for the project activities have been developed in collaboration with ECOWAS's WRCC and are currently being finalized. The tendering process is expected to be launched in September 2015, and all activities for this project are expected to be fully implemented and related outputs delivered by June 2016.



KNOWLEDGE MANAGEMENT AND TECHNICAL ASSISTANCE



Strategic Overview of International Waters in Africa

Implementation Advanced

The “Strategic Overview of International Waters in Africa” provides a comprehensive compilation of indicators describing the continent’s transboundary surface waters, including the socioeconomic, geopolitical, and biophysical aspect of transboundary basins. The analytical report and accompanying database of indicators, both to be made publicly available, aim to fill a critical gap in the water resources knowledge base and serve as a comprehensive compilation of information that provides sufficient context about those areas of uncertainty that collectively affect the challenges and opportunities in cooperative water investment. By revealing needs, opportunities, challenges, constraints, and trade-offs that define the hydro-political landscape of Africa’s international waters, this study can assist development partners who are looking to support the region with making strategic decisions. Findings of this study have played a prominent role in informing the prioritization and shaping of CIWA’s engagements.

A final draft of the Strategic Overview of International Waters in Africa report was completed in FY15. It is being verified by organizations working on international waters across Africa, and a final report is expected in FY16. The report will be presented to a wide range of stakeholders during an international conference to validate and disseminate findings.

Overview of Institutions in International Waters in Africa

Implementation Advanced

The “Overview of Institutions in International Waters in Africa” is a comparative analysis of the form, functions, scopes of authority, and funding mechanisms of international river basins across Africa, including an assessment of the current states of their financial independence, sustainability, and autonomy. There is currently no comprehensive compilation of national and transboundary legal and policy instruments regarding transboundary waters in Africa. By filling this gap, this study aims to create an understanding of the principles and mechanisms employed in the creation and formalization of water resources institutions across Africa, to provide insights for current and water and future water management that fosters cooperation in international waters in a way that responds to key national and international policy objectives.

A final draft of the Overview of Institutional Arrangements for International Waters in Africa report was completed in FY15. Plans for dissemination of a final report in FY16 are being developed.

Economic Rationale for Cooperation in Transboundary Basins in Africa

Concept Approved, Preparation Advanced

The “Economic Rationale for Cooperation in Transboundary Basins in Africa” activity will present a comprehensive literature review of empirical studies on the economic rationale for transboundary water resources cooperation in order to construct an evidence-based argument supporting cooperative action among riparians. Common pool resources, such as international river basins with multiple riparian states, are hard to manage efficiently and equitably: a reality that largely applies to Africa. Water resources in transboundary basins in Africa play a central role in the overall economic transformation of riparian countries because of the cross-sectoral and cross-national implications of its utilization and relevance to almost all economic activities. Although cooperative management and development of these water resources can tremendously increase the benefits derived from them, the associated political, technical, and financial challenges often drive countries to delay cooperative projects for decades, if not pursue unilateral action. The related impact on economic growth and resulting social and environmental costs are assumed to be significant. However, the impact and its costs have not been adequately quantified. By focusing on how cooperation in transboundary basins can contribute to economic growth and poverty reduction and minimize the “costs of inaction,” this activity aims to increase the evidence base supporting the case for a cooperative approach.

The Concept Note for this activity was approved in FY15. Details of the activity are currently being planned and are expected to be finalized in FY16.

Political Economy of Cooperation

Concept Approved, Preparation Advanced

Increasingly, political economy analysis is being used by development organizations to inform strategic decision making and long-term planning. The political economy of a river basin or region is a key factor in the success of cooperative water resources management, and in many cases, it supersedes technical considerations and financial consequences in decision making. In transboundary basins in particular, the importance of understanding the non-technical drivers of policy making is crucial for identifying feasible opportunities for advancing cooperation and for reducing the risk profile of investment projects. Under this activity, two components foster the incorporation of political economy considerations into the design and implementation of interventions related to transboundary water.



The first component involves the formulation of a diagnostic framework which provides guidance on unpacking the specific context of a water basin, including the structures, institutions, actors, incentives and sources of economic benefit that typically shape the political economy landscape of water basins. The framework will also provide guidance for translating key findings into concrete recommendations for achieving more effective water resource management in a specific basin. It will be applied to three case studies—Lake Chad Basin, Niger River Basin, and Nile Equatorial Lakes Region—to inform CIWA projects that are currently being prepared or implemented.

The second component of this activity aims to understand the political economy of the new financing landscape of development assistance in Africa, where emerging economies have taken on an increasing role in providing support for water resources infrastructure. Specifically, it aims to understand implications of this transforming landscape for conventional financiers such as the World Bank, while exploring if and how CIWA could contribute to implementing emerging economy-financed transboundary projects with improved technical strength, greater social equity, stronger environmental sustainability, and higher political acceptability.

The Concept Note for the “Political Economy of Cooperation” activity was approved in FY15. The first output, the Framework for Political Economy of Cooperation and accompanying case studies of three basins, is in the process of being finalized with inputs from the Concept Review; the second output, a study on the political economy of financing from emerging economies for transboundary water projects in Africa, is expected to be completed in FY16.

Box 6: Political Economy Analysis and CIWA Programming

Decision making related to water resource management is influenced by traditional economic and technical factors, as well as by political considerations such as perceived risks to a country's interest of power in the basin, mechanisms for managing political support within a single state, and opportunities that result in increasing cooperation.

CIWA recognizes the significance of governance and political economy considerations in enhancing the effectiveness of development programming, identifying and mitigating risks, and responding to country demand with context-specific approaches that are aligned with the political, economic, and institutional realities on the ground. As a result, CIWA commissioned a political economy framework for applying political economy analysis in the transboundary water management context. The framework aims to assist technical experts to commission or carry out strong, operationally relevant analysis. It explores some of the political economy variables that shape and constrain opportunities for better resource management in African river basins and provides practical guidance on designing and implementing an assessment. It also offers guidance on translating key findings into concrete recommendations for achieving more effective water resource management in a specific basin. The framework has been piloted in the Niger Basin, Lake Chad, and the Nile Equatorial Lakes to inform ongoing and planned CIWA operations. In the past, CIWA's incorporation of political economy analyses to influence design and implementation of its support in the wider Nile and Zambezi basins has facilitated stronger collaboration between water specialists and country governments for increased impact.

CIWA has partnered with the Stockholm International Water Institute and the Governance Global Practice (GGP) of the World Bank to support the utilization and integration of political economy analysis in design and implementation of its operations. As part of its collaboration, the GGP has provided technical expertise in refining the concept of the political economy framework that CIWA is supporting and fostered dialogue between water and governance specialists covering CIWA basin countries. CIWA and GGP co-hosted a practical "how to" session during World Bank Water Week in May 2015 to help build understanding and the capacity of Bank teams to connect technical knowledge with the political dynamics surrounding water to achieve better and more sustainable outcomes. More generally, the GGP's resource library, roster of political economy experts, and monthly knowledge sharing on emerging practice bolsters CIWA's ability to address political economy in its work in transboundary waters.

Facilitating Africa-Wide Hydromet Services

Implementation Commenced

The availability of real-time, ground-based hydromet information in the public domain can play a significant role in mitigating natural disaster risk and reducing climate vulnerability. In the African context, there is a need to gradually fill critical gaps in the accessible and interoperable hydromet networks at the regional level; facilitate envisioning of regional and national hydromet services in conceptualizing such shared systems; improve incentives and systems for greater public access to the data; improve integration of increasingly powerful earth observation products; and improve the capacity for forecasting and last-mile connectivity. This activity consists of preparation of a phased Africa Hydromet Services program to modernize the hydromet services by gradually filling in missing links in the use of global and regional information in national programs in critical transboundary river and lake basins across Africa. Key expected results include an assessment to take stock of ongoing and proposed hydromet programs; review of good global practice; evaluation of options for the Africa region; cost-benefit analyses; evaluation of institutional arrangements and financing and implementing capacity; and technical training and facilitation of interactions among stakeholders to develop a shared vision on the use of hydromet systems and for them to better design, deploy, analyze, customize, and use hydro-meteorological services.

Progress to date includes completion of a rapid institutional review of regional organizations including climate centers and basin organizations. An analytical effort which explored the use of statistical techniques (as used by the National Weather Service in the U.S.) for seasonal hydrologic forecasting, currently absent in Africa, was completed and piloted for the Blue Nile Basin with very encouraging results. Planning has begun for a detailed review of ongoing and proposed hydromet systems in Africa, as well as for a regional program concept for a phased investment program.



Transboundary Water Cooperation for Climate Resilience

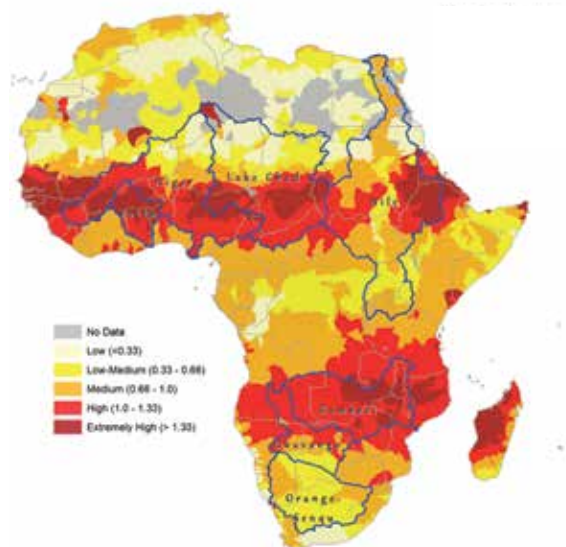
Implementation Commenced

Despite the important role that cooperation in transboundary waters can play in helping countries build climate resilience, currently, there is not an accessible, consolidated document that clearly articulates this linkage. The Transboundary Water Cooperation for Climate Resilience activity will develop innovative knowledge and communications products around this important linkage to enable African countries, CIWA, and other development partners to make the case for cooperation to build climate resilience. Two main outputs are envisioned:

1. A brief advocacy paper that synthesizes existing information in a way that identifies why and how cooperative action can help countries build climate resilience. This paper is under preparation for inclusion in a larger flagship report being developed by the World Bank Water Global Practice targeted to raise the profile of water in building climate resilience to be released in advance of the UNFCCC COP21 in November 2015.
2. An expanded report that outlines how cooperation around information, institutions, and infrastructure enhances climate resilience, reduces uncertainty in decision making, and helps people and governments enact plans to reduce risks. This expanded report will focus on transboundary basins in Africa and could include illustrative maps to demonstrate how cooperation in select basins can or are taking actions to build climate resilience.

Preparation for this activity began in FY15, including detailed consultations with experts in the World Bank. Implementation is under way.

Map 3: Projected Change in Seasonal Variability in Africa (Value in 2040 Business as Usual)



Box 7: CIWA Makes the Case for Transboundary Cooperation to Build Climate Resilience

With the Green Climate Funds coming online in 2015 and the importance of the COP21 in Paris, CIWA is breaking new ground to articulate the opportunities that transboundary water cooperation provides for building climate resilience and reducing disaster risk. By strengthening the 3 I's—information, institution, and infrastructure—to build regional water security in ways that allow countries to adapt to an uncertain future, investing in transboundary water cooperation can provide significant value for climate adaptation and disaster risk management funds.

The hydrological cycle is one of the primary pathways through which people will experience climate change. Water resources management and development are fundamental tools that help manage changes in the hydrological cycle, thereby reducing climate risks and improving the ability to cope with change. Transboundary cooperation on information, infrastructure, and institutions can present countries with important opportunities to effectively and efficiently build climate resilience.

Collaborative information systems reduce uncertainty in the face of a changing climate.

Information needed to build resilience exceeds geopolitical and sectoral boundaries. Transboundary cooperation allows countries to expand the information and knowledge base, improving understanding of weather and climate phenomena and increasing predictive accuracy; use available information to collaborate and coordinate in making strategic regional and national decisions in the face of extreme climate variability and unclear long-term climate change; and disseminate processed information to climate disaster vulnerable populations effectively and efficiently.

Strong transboundary institutions lay the foundation for effective adaptation.

Institutions are fundamental for effective information sharing and infrastructure operation, both of which are critical to building resilience. Transboundary cooperation allows countries to develop a strong foundational institutional framework, including governance systems, treaties, policies, regulations, and incentives that influence water allocation, quality, rights and pricing, asset management, and service delivery. Cooperation among riparians is crucial for moving away from institutions that traditionally were rigid, to forms that are robust, yet more flexible, in order to ensure their relevance and effectiveness in an uncertain future.

Cooperation on infrastructure allows countries to evaluate trade-offs and optimize benefits, effectively building resilience at a regional scale.

Well-planned infrastructure allows countries to sustainably harness water's productive potential and mitigate risks of water shocks, contributing directly to improving resilience. Transboundary cooperation allows countries, in the context of their hydro-geologic landscape, to strategically advance sound and sustainable regional and national infrastructure that equip people to better store, regulate, and exploit their water resources to build water security and reduce climate disaster risks and environmental vulnerability in the face of increasing climate variability and shifting long-term water availability trends.

Improving Access to Capacity Building and Knowledge Exchange

Implementation Commenced

This activity aims to promote innovative approaches to improving capacity building and knowledge exchange on critical demand-driven areas of interest such as improved basin planning and management, analytical tools, legal and policy instruments, holistic “bankable” investment preparation, public-private partnerships, climate risk management, among others. In doing so, it seeks to narrow the gap between need and availability of capacity building and knowledge exchange resources by drawing upon the Bank’s global expertise and partnerships to help regional counterparts learn from one another and access global expertise.

The team has been in discussion with the United States National Aeronautics and Space Administration (NASA), the United States Army Corps of Engineers (UNESCO-IHE Center), and several others to outline training topics on water-related issues including some that are planned to be piloted using distance-learning techniques, including enhanced use of earth observation data products and simple analytical tools for water resources planning and management, modern water resources observation systems and open data platforms, forecasting, aquatic weed management in large transboundary lakes, dam safety, payment for ecosystem services, climate risk management, and integration of gender into transboundary water resources planning and management. Thus far, the activity has focused on doing a rapid scoping of needs and interests of global, regional, bilateral, and other institutions involved in Africa in regional capacity-building activities related to transboundary waters as well as tools for improving data sharing. Two early examples of capacity-building events are planned for early FY16:

- The “International Workshop on Mapping Evapotranspiration” will connect clients, donors, and experts from NASA, USGS, and other agencies to help broaden the use of geospatial datasets and advanced technology to better understand the water cycle and the impacts of water storage, diversion, and major water uses;
- An exchange event on the integration of gender-based considerations into basin planning, which draws on the advanced work NELSAP has conducted on mainstreaming gender into its programming.

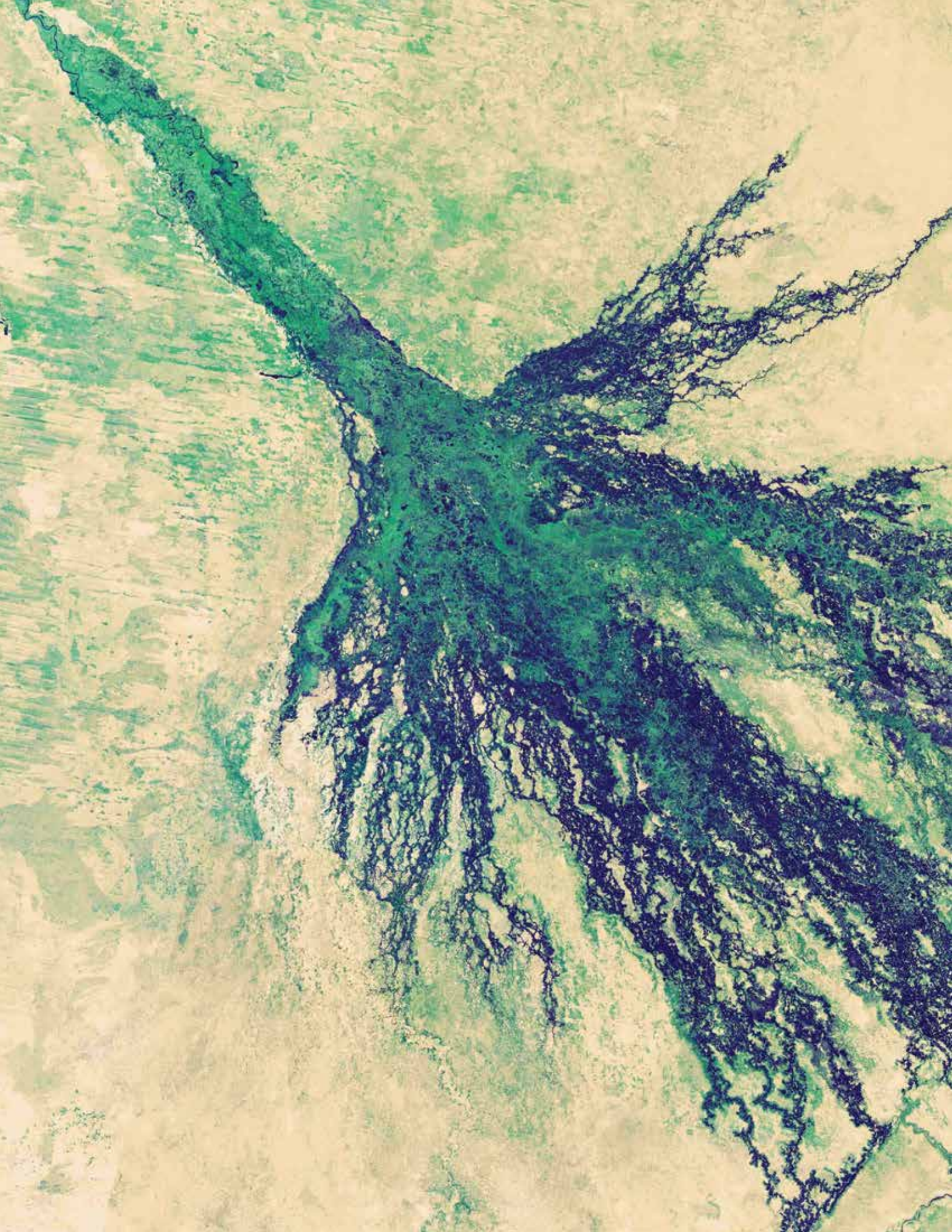
Improving Public Access to Basin Data

Implementation Advanced

A critical obstacle to improved water resources management in a transboundary context in Africa is the poor availability of even basic water resources information in the public domain. Today, modern spatial databases and tools can help organize and visualize a wide variety of useful spatial and other information in an informative, interactive setting. However, there is a lack of well-designed and easily accessible online applications to access such data on international basins in Africa, and it is increasingly becoming critical to make publicly accessible a rapidly growing, comprehensive knowledge base on water resources, energy, agriculture, climate variability and climate change, environmental, economic, social, demographic, and administrative indicators, water infrastructure, opportunities, and risks. This activity aims to bridge the challenge of the poor availability of critical spatial and temporal data in the developing world on the one hand with the abundance of new high-quality datasets available from a number of institutions such as different UN agencies, NASA, the United States National Oceanographic and Atmospheric Administration (NOAA), the Center for International Earth Science Information Network, International Research Institute, and the World Bank on the other, to facilitate formulation of solutions to critical water-related problems.

The activity is being implemented and various knowledge products have been released (Spatial Agent app) or are being developed (web portal, web-based atlases, integration with CIWA web portal). A version of the Spatial Agent app, which demonstrates an innovative way to visualize key multi-sectoral public domain data from 300 data sources, is now available. A data primer for this extensive database is now available, as well as a web-based version of the tool: <http://www.appsolutelydigital.com/SpatialAgent/>.

Efforts to expand the reach of this work include support for riparian and basin-driven interests in providing better access to public information through technical support. For example, support facilitated NBI's development of an NBI App and an NBI Flood App along with support for a web portal.



RESULTS ACHIEVED



Program-level Results

The CIWA program's objective is to strengthen cooperative management and development of international waters in Sub-Saharan Africa to assist in achieving sustainable climate-resilient growth. In order to accomplish this objective, CIWA supports the institutions that manage and develop the basins, catalyzes and enables transformative water-related investments, and facilitates information gathering and sharing on the benefits of cooperation. As with all infrastructure preparation projects, information sharing efforts, and institutional strengthening work, the impact of any support provided may not be fully realized for many years. In particular, CIWA works upstream of actual investment, making immediate attribution of results a challenge. CIWA tracks progress toward these long-term results by measuring on an interim basis the estimated value of potential investments influenced by CIWA and by identifying potential direct beneficiaries of the investment projects influenced. As project preparation advances and actual financing is secured for investments influenced, CIWA results reporting reflects both potential investments and projects where financing has been mobilized. Table 1 lists the potential investment projects influenced by the program where preparation studies allow for estimation of investment values and project beneficiaries. Table 2 lists those investment projects influenced by CIWA that have thus far mobilized resources. Depending on the project, and on the cooperation status of the specific basin, the way CIWA influences investment and beneficiaries can vary; details are included in appendix A.

Table 1: Potential Investments Influenced by CIWA

Potential Investments	Estimated Potential Investment Value (US\$)	Estimated Number of Potential Direct Beneficiaries	Anticipated Benefits
Batoka Gorge HES	2.5 billion	6 million	Increased power generation
Fomi Dam	1.3 billion	30.8 million	Increased power generation, irrigation development, enhanced fisheries, job creation
Lesotho Highlands – Botswana Water Transfer	800 million	2 million	Increased water supply, additional revenues
Nile Basin Investments	3 billion	4.2 million	Increased water supply, increased power generation, improved watershed management, irrigation development
TOTAL	7.6 billion	43 million	

Table 2: Mobilized Investments Influenced by CIWA

Mobilized Investments	Estimated Current Investment Value (US\$)	Estimated Number of Direct Beneficiaries	Benefits
Kandadji Dam	1 billion ³	1 million	Increased power generation, irrigation development, job creation
Kariba Dam	294 million ⁴	4.5 million	Increased power generation
Volta Basin	6.9 million ⁵	50,000	Irrigation development, enhanced fisheries, improved pastoral activities, job creation
TOTAL	1.3 billion	5.6 million	

Program Development Objective: To strengthen the cooperative management and development of international waters in Sub-Saharan Africa to facilitate sustainable climate-resilient growth.

Indicator (i): U.S. dollar financing mobilized for cooperative management and development of international waters projects supported by CIWA.



Target FY15: US\$8 billion (value of potential projects influenced by CIWA)

Progress against target: US\$7.6 billion in potential investments influenced by CIWA; US\$1.3 billion in mobilized investments influenced by CIWA.

Indicator (ii): Number of people directly benefiting from improved water resources management and development in target basins through projects supported by CIWA.



Target FY15: 10 million (number of potential beneficiaries of projects influenced by CIWA)

Progress against target: 43 million potential beneficiaries of projects influenced by CIWA; 5.6 million direct beneficiaries of mobilized investments influenced by CIWA

3. For more information, see "Project Information Document (PID) Appraisal Stage: Additional Financing to the First Part of the Second Phase (Phase 2A) of the Niger Basin Water Resources Development and Sustainable Ecosystems Management Program – Kandadji," May 22, 2014, http://www-wds.worldbank.org/external/default/WDSCContentServer/WDSP/IB/2014/03/17/000414397_20140318113602/Rendered/PDF/Kandadji0AF0PID000P14897200AF0Cleared.pdf

4. For more information, see "Kariba Dam Rehabilitation Project," accessed August 20, 2015, <http://www.worldbank.org/projects/P146515?lang=en>

5. For more information, see "Project Appraisal Document on Proposed Grants to the Volta Basin Authority," April 30, 2015, http://www-wds.worldbank.org/external/default/WDSCContentServer/WDSP/IB/2015/05/05/090224b082e409d4/2_0/Rendered/PDF/Africa000Volta0plementation0Project.pdf

Intermediate Result 1: Regional cooperation and integration strengthened



Target FY15: Six relevant institutions with projects in operation that contribute to strengthening regional cooperation and integration

Progress against target: Fully achieved

NBA, VBA, NBI, ZAMCOM, ZRA, OKACOM, and SADC (seven basin institutions, five basins, one regional economic community (REC)) have projects currently in operation that contribute to strengthening regional cooperation and integration. In all of the basins where CIWA has a program in operation, the program's support helps to strengthen the platform for international cooperation by promoting dialogue, engagement among stakeholders, and progress toward regional stability, which includes training and confidence-building measures. In the Niger, Nile, Volta, and Zambezi basins and with the SADC GMI, support helps the organizations to take steps to increase the sustainability of their core financing. In the Niger, Volta, and Zambezi basins, the program supports measures that help riparians to harmonize, develop, or adopt legal instruments that will strengthen the legal mandate of basins designated to facilitate cooperation. Finally, in the Nile, Niger, Okavango, and Zambezi basins, support will demonstrate the evidence base for cooperation and help countries to evaluate costs and benefits of potential investments.



Target FY15: Four strategic analyses conducted that will be used to illustrate the evidence base for cooperation

Progress against target: Partially achieved

Numerous strategic analyses are under way, which will be used to inform cooperation across Africa or to provide evidence for the benefits of cooperation in specific basins. Two studies have been completed and shared with clients to inform cooperation. A study titled "Institutional Assessment of the Zambezi River Authority" was completed in FY14 and was used as the basis for identification of potential measures, informed options, and detailed steps basin states can take toward harmonizing existing policies and laws to improve the cooperative management of waters within the Zambezi River Basin. The "Political Economy Analysis Framework" and three case studies were developed and shared with basin teams and the Advisory Committee (AC) to inform preparation and supervision of existing projects and identification of future activities. Four additional studies are near completion, including the Economic Rationale for Cooperation, the Overview of International Waters in Africa, the Overview of Institutions in International Waters in Africa, and the Political Economy Analysis of the Zambezi Basin.

Intermediate Result 2: Water resources management strengthened



Target FY15: Five relevant institutions with projects in operation that improve water and climate risk management and/or investment operation coordination.

Progress against target: Fully achieved.

NBI, ZAMCOM, ZRA, SADC and VBA (five basin institutions, three basins, one REC) have projects in operation that contribute to strengthening water resources management. In the Nile, Zambezi, and in the SADC region, water resources monitoring systems will be developed and/or strengthened. In all basins, the program is supporting efforts to improved analytical tools for water-related information synthesis and targeted dissemination to relevant stakeholders. Specific activities that strengthen river basin planning are under way in the Nile and Zambezi basins. Monitoring, synthesis, and dissemination activities are specifically designed to increase riparian understanding of the effects of climate change and to help riparians better prepare for and respond to climactic events such as floods and droughts and to plan water use for productive sectors. Finally, in the Volta Basin, the project will implement priority actions with transboundary significance that will address water quality concerns, better manage soil erosion, and reduce costal degradation.

63

SECTION 5: RESULTS ACHIEVED

Intermediate Result 3: Water resources development strengthened



Target FY15: Four investment opportunities with regional benefits influenced by projects in operation

Progress against target: Fully achieved

NBA, NBI, VBA, ZRA and the government of Botswana have projects in operation that contribute to advancing 21 investment opportunities.

CIWA support for advancement of investment opportunities cuts across the investment preparation process as shown in figure 5. In the Nile, Niger, and Zambezi basins, the program plays a key role in facilitating cooperative dialogue around specific investments of regional significance, which is key to advancing complex projects. In the Niger Basin, the program's support focuses on clarifying regional benefit-sharing parameters, identifying and expanding on best practice related to social and environmental concerns, and helps with

resource mobilization efforts related to the Climate Resilience Investment Plan and donor roundtables (Niger Basin, two investments—Fomi Dam and Kandadji Dam). In the Zambezi Basin, a feasibility study for the Batoka Gorge HES and the related ESIA are under way; a detailed design of the Batoka Gorge HES will be undertaken after initial studies are completed. The program will also support exploration of transaction options for the HES, which can help bring project preparation to closure (Zambezi Basin, two investments—Batoka Gorge HES and Kariba Dam Rehabilitation). With CIWA support, the government of Botswana is undertaking a study on behalf of South Africa and the Kingdom of Lesotho to analyze options for a water transfer conveyance in the region (government of Botswana, one investment—Lesotho Highlands–Botswana Water Transfer). The program's support contributes to advancing priority actions in the Volta Basin (Volta Basin, 1 set of investments – VBA priority actions). In the Nile Basin, the program supports advancement of numerous investments including development of five feasibility studies and ESIA's and facilitating agreement among riparians for 15 investments (Nile Basin, 15 investments).

As shown in figure 6, support for investment opportunities with regional benefits is not limited to advancement of specific investments, but also includes scoping and identification studies (Okavango, Nile, Lake Chad), informing construction and commissioning by supporting studies, which analyze and expand on lessons related to resettlement and benefits sharing (Niger Basin–Kandadji project) and informing ongoing operations through information systems that allow for the coordinated operation of existing infrastructure (Nile and Zambezi).



Target FY15: Three institutions with projects in operation that improve the approach to sustainable investment planning and bankable investment preparation⁶

Progress against target: Fully achieved

NBI and ZAMCOM (two basin institutions) have projects in operation that contribute to improving the approach to sustainable investment planning; the Niger Basin has a project in operation that will contribute to sustainable investment planning and bankable investment preparation facilitated by the NBA. In the Nile Basin, support for NBI helps to strengthen integration of gender considerations into institutional planning (NELSAP) and climate change and safety considerations into project planning (ENTRO). Analytical work in the Zambezi will help riparians to assess the potential impacts of climate change on the water-energy nexus, and the program is supporting ZAMCOM's efforts

6. Sustainable investment preparation includes consideration of poverty, gender, and long-term climate change among other social and environmental considerations.

to integrate climate considerations into the basin's strategic plan. Ongoing analytical work in the Niger Basin will help to identify and disseminate good practice related to large-scale resettlement in fragile situations and will develop an innovative tool for decision makers to visualize socioeconomic data and better understand the benefits and impacts of multipurpose infrastructure. This effort will draw on international good practice and will specifically examine and benefit ongoing implementation of the Kandadji Dam project.

Figure 5: CIWA Advances Investments across Africa



Intermediate Result 4: Stakeholder engagement and coordination strengthened



Target FY15: Four basin institutions with projects in operation that contribute to strengthening stakeholder engagement and coordination, 50 percent of which include organizations representing the interests of women and/or the poor

Progress against target: Partially achieved

Progress against sub-indicator target: Not achieved

NBA, NBI, NBD, VBA, and ZAMCOM (five basin institutions) have projects in operation that contribute to strengthening stakeholder engagement and coordination, 20 percent of which include organizations representing the interests of women and/or the poor. Support for the NBD helps the network of CSOs to bridge policy and practice to inform project design and to create a safe space for dialogue regarding water resources management and development in the basin. The NBD has a significant constituency that represents the interests of women. Engagement with the VBA supports development of a communications plan and related tools, but it is not yet clear how or if this will specifically engage organizations representing specific interests. Stakeholder engagement in the Niger Basin focuses on the coordinated planning of investment in the basin including those associated with construction of the Fomi Dam, flow regulation, and ecosystem services; stakeholders engaged include the private sector, providing information and tools to decision makers to facilitate their engagement with relevant stakeholders. With CIWA support, ZAMCOM conducted a detailed stakeholder analysis, followed by the development and distribution of targeted communication materials to foster greater awareness within the basin on equitable and reasonable utilization of the Watercourse and will enhance partnerships with academia to help broaden the base of transboundary knowledge and analysis in the basin. Engagement with NBI enhances knowledge partnerships with stakeholder networks, including government, power utilities, and academia, through an internship program that provides training to regional specialists and holds modeling forums where members of professional networks and CSOs can explore and debate regional water issues.



Target FY15: Two basins with increased water resources management and development information in the public domain

Progress against target: Not achieved

CIWA's engagement in the Nile Basin has contributed to increased public access to and updating of water resources information and knowledge through development of an EN Climate and Flood portal and by updating and enhancing the NBI portal user interface and by strengthening communications material and conducting outreach to enhance user awareness of available products. Ongoing projects with ZAMCOM and VBA will likely yield increased access to information in the public domain in the future.

Figure 6: CIWA Strengthens Cooperation





FINANCIAL OVERVIEW

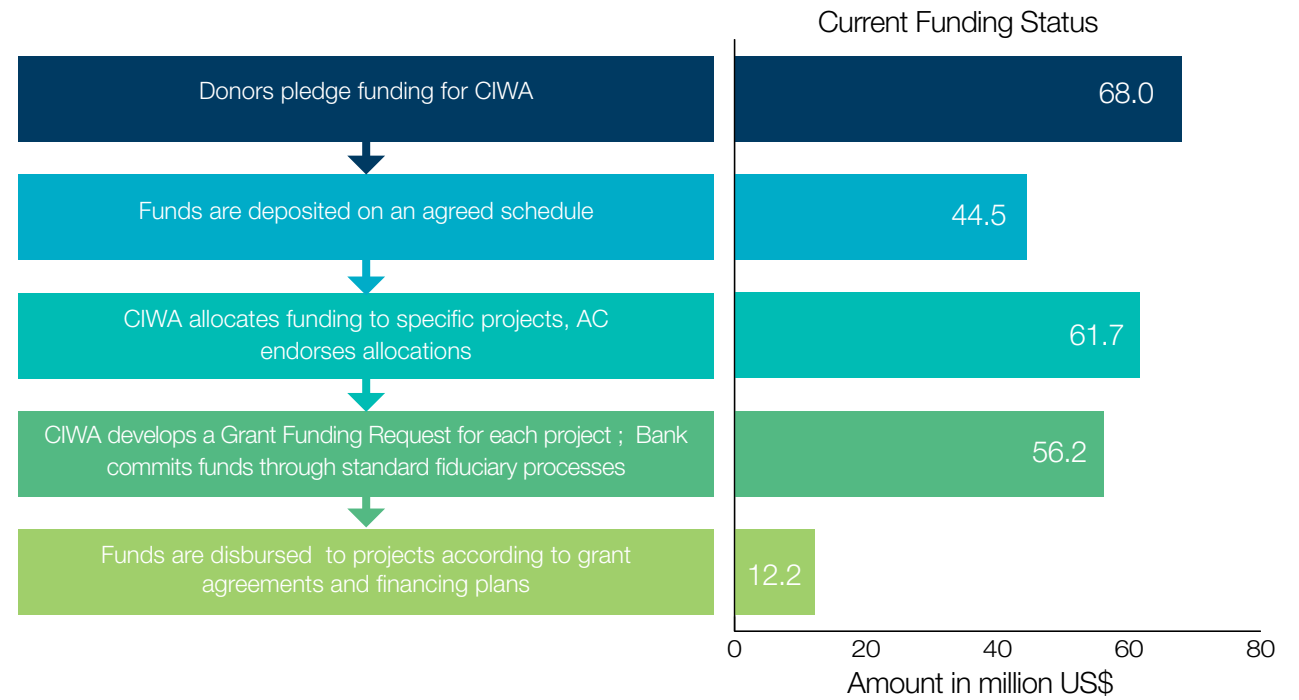


This section provides financial information on the CIWA program for FY15, from July 2014 to June 2015. Unless otherwise noted, the financial information presented in this report, including exchange rates, reflects the status as of June 30, 2015.

The CIWA program is supported by a MDTF and administered by the World Bank on behalf of contributing development partners. This specific type of MDTF is known as a “Programmatic Trust Fund” to which donors commit funds designed to support a thematic framework rather than financing any specific project. Within this framework, CIWA supports projects executed by recipient organizations as well as projects directly managed by the World Bank.

Consistent with standard World Bank Trust Fund practices, funding for CIWA is pledged by donors (current pledges total US\$68.0 million) and funds are deposited on an agreed schedule (current deposits total US\$44.5 million). Then, in accordance with CIWA's strategic planning efforts, funding is allocated to specific projects (current allocations are US\$61.7 million) and allocations are endorsed by the CIWA AC. Following endorsement, CIWA works with its clients to develop Grant Funding Requests (GFRs) and the Bank approves documentation and commits funds through its standard fiduciary processes (current commitments total US\$56.2 million). Funds are then disbursed according to the grant agreements and financing plans (disbursements thus far are US\$12.2 million). CIWA's funding process is depicted in figure 7. Additional details on pledges, deposits, allocations, commitments, and disbursements are presented below.

Figure 7: CIWA’s Funding Process



Donor Pledges, Deposits, and Allocations

The total funds pledged as of June 30, 2015 amounted to US\$68.0 million.⁷ Of these funds, US\$44.5 million was deposited in the CIWA MDTF account. This leaves a remaining balance of US\$23.5 million to be deposited in the coming years. Table 3 shows the pledges, deposits, and outstanding balances. Contributing donors to date include Denmark, the Netherlands, Norway, Sweden, and the United Kingdom. Donors deposit funds in the CIWA MDTF account according to an agreed schedule of deposits that is detailed in the Administration Agreement or other documents exchanged between the Bank and the donors. This schedule can be revised as necessary to meet project disbursement requirements.

Table 3: Overview of Donor Pledges and Deposits

Contributing Partners	Pledges			Deposits	Outstanding Balance (US\$)
	Currency	Amount (in Donor Currency)	Amount (US\$)	Amount Received (US\$)	
Denmark (DANIDA)	DKK	18,700,000	3,398,597	3,398,597	0
The Netherlands	USD		25,000,000	10,000,000	15,000,000
Norway (NORAD)	USD		882,746	882,746	0
Sweden (SIDA)	SEK	170,000,000	22,693,113	14,199,204	8,493,909
United Kingdom (DFID)	GBP	10,000,000	15,980,200	15,980,200	0
TOTAL			67,954,656	44,460,747	23,493,909

As of June 30, 2015, US\$61.7 million has been allocated to CIWA projects and activities, which effectively has assigned most of the available funding (97 percent) to activities under preparation or implementation. Table 4 presents an overview of the availability and allocation of funding.

7. Pledges are made in donor currencies. Total pledges at close of FY14, using then exchange rates, were US\$71.2 million. Total pledges at close of FY15 amount to US\$68.0 million due to exchange rate fluctuation.

Table 4: Overview of Availability and Allocation of Funding

Allocation of Funding	US\$
Pledges in signed Administration Agreements	67,954,656
Plus current investment interest income	276,138
Less 2% administrative cost recovery fee	-1,359,093
Funds available for project/activities	66,871,701
Less contingency for currency fluctuation (unallocated, 15% of donor receivables, \$23.5M) ^a	-3,524,086
Funds available for allocation	63,347,615
Less allocation to projects/activities	61,672,637
Unallocated Funds	1,674,977
% Allocated	97%

Note: a. The Basis of Commitment (BoC) of the CIWA MDTF is based on cash-plus future donor contribution receivables (that is, including amounts not yet paid in by a trust fund donor under a signed administration agreement or equivalent). Trust funds may be exposed to BoC risk if grant agreement amounts (that is, commitments) exceed the cash received from donors at the time the grant agreements are signed. The BoC risk may arise when donors provide less than agreed—or delay—funding to a trust fund, after grant commitments have already been entered into with recipients based on the expectation of future contributions from these donors. Most trust funds operate under the Bank's best practice recommendation of committing new grants only against donor contributions already received in cash. However, on an exceptional basis, some trust funds enter into grant agreements based on future donor receivables. To help avoid an over-commitment of grants against available donor funding due to currency volatility, the Bank applies an automatic discount on future donor receivables. This discount is applied on the U.S. dollar equivalent value of donor contributions in currencies other than the holding currency for a given trust fund. The regular discount percentage equals 15 percent of future donor receivables, but it can be increased by CTR in times of heightened currency volatility in the financial markets. In practice, the Bank system will only allow grant commitments of up to 85 percent of the prevailing U.S. dollar value of future donor receivables.

The majority of available funds (US\$47.7 million, or 75 percent) are allocated to CIWA's four priority basins—Nile, Niger, Volta, and Zambezi. Basin programs include recipient-executed projects and Bank-executed support programs that fund technical assistance and analytical work, which supplements the recipient-executed projects. In certain cases, CIWA also pre-allocates funding for follow-up work on current projects, based on project and organizational performance and riparian commitment. In the current envelope, US\$3.0 million is pre-allocated for support in the Nile Basin subject to demonstrated commitment of the riparian states. In order to complement the basin programs and broaden CIWA's impact beyond the water sector, US\$3.0 million is allocated for projects with RECs, comprising a US\$0.7 million Bank-executed engagement with ECOWAS and US\$2.3 million for the SADC Groundwater Management Program. In addition, US\$2.2 million is allocated to the Lesotho Highlands–Water Transfer Study executed by the government of Botswana. Finally, an allocation of US\$5.5 million is allocated to the Catalytic Sub-Program, of which US\$2.7 million supports opportunistic projects that contribute to the program's objectives in the ECOWAS, Lake Chad, and Okavango regions while US\$2.8 million supports Africa-wide activities on knowledge management, economic sector work, and technical assistance to generate and share knowledge and to build capacity. Table 5 presents a detailed account of the allocation of available funding. Appendix B describes the details of all CIWA projects and shows the financial results of projects for which grants have been established.

Table 5: Detailed Account of Allocation of Available Funding

Basin/REC/Sub-Program/Activity	Description	Allocated Amount (US\$)
Niger	Niger River Basin Management Project, Niger Basin Support Program	8,950,000
Nile	NCORE (incl. SEC, NELSAP and ENSAP), Nile Basin Discourse, Nile Basin Support Program, Nile Basin Engagement (contingent upon NBI financial strategy)	20,850,000
Volta	Volta River Basin Institutional Support, Volta Basin Support Program	4,450,000
Zambezi	Zambezi River Basin Management (ZAMCOM), ZRB Development (ZRA), Zambezi Support Program	13,400,000
Orange-Senqu	Lesotho Highlands-Botswana Water Transfer Study	2,175,000
SADC	SADC Groundwater Management	2,300,000
ECOWAS	Water Resource Management in West Africa	700,000
Lake Chad	Lake Chad Policy Dialogue	1,049,867
Okavango	Okavango Multi-Sector Investment Analysis	900,000
Africa wide	Knowledge Management and Technical Assistance Catalytic Activities	2,820,491
PMU	Program Management and Administration (incl. evaluation, reporting and partnership coordination)	4,077,279
	Total	61,672,637

Commitment, Disbursement, and Funding Balance

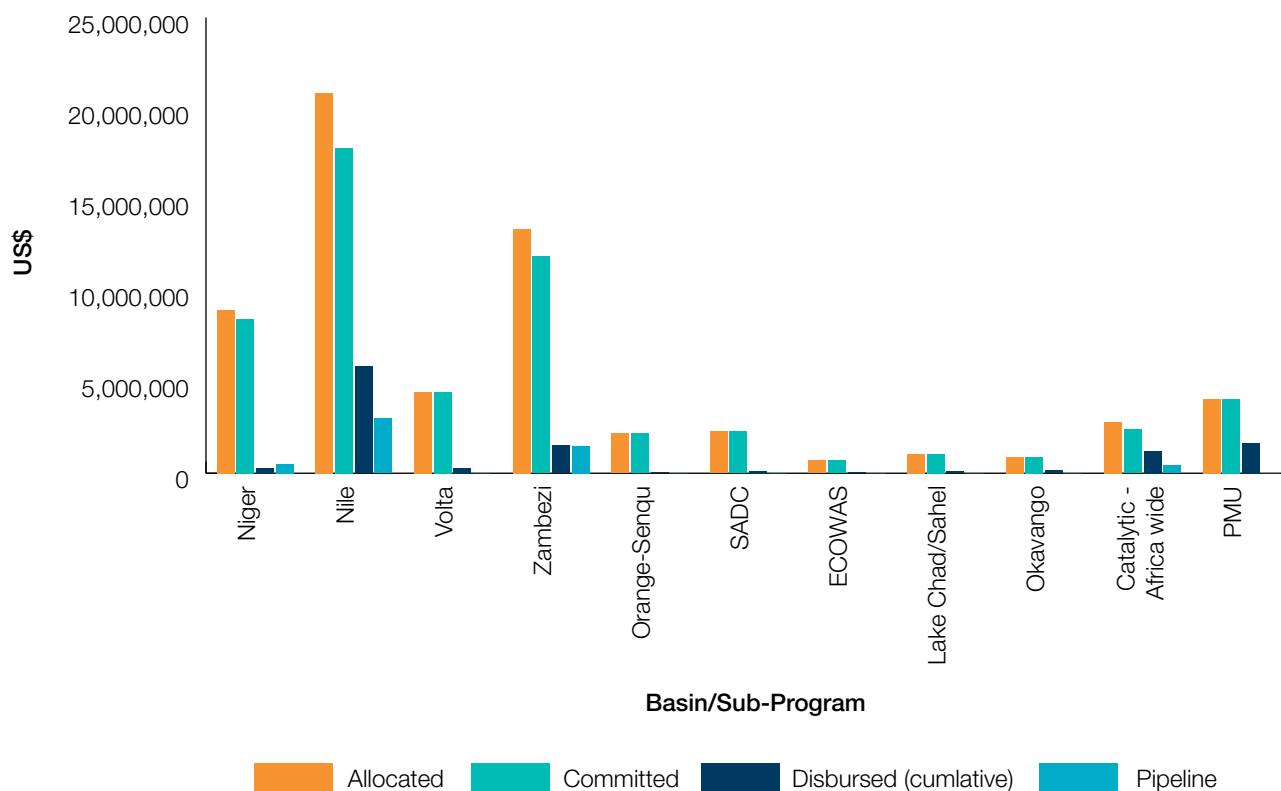
By the end of FY15, the program had committed a cumulative US\$56.2 million in grants, of which US\$11.3 million was disbursed in projects and activities. The pace of disbursement in FY15 more than tripled from the previous year. Table 6 and figure 8 provide a summary of the overall cumulative allocations, commitments, disbursements, commitment balance, and current pipeline activity amounts.

Table 6: Allocation, Commitment, Disbursement, and Pipeline Amounts

Basin/Sub-Program	Allocated	Committed	Disbursed (cumulative)	Commitment Balance	Pipeline
Niger	8,950,000	8,450,000	284,663	8,165,337	500,000
Nile	20,850,000	17,850,000	5,865,625	11,984,375	3,000,000
Volta	4,450,000	4,450,000	296,899	4,153,101	0
Zambezi	13,400,000	11,900,000	1,516,453	10,383,547	1,500,000
Orange-Senqu	2,175,000	2,175,000	43,215	2,131,785	0
SADC	2,300,000	2,300,000	124,097	2,175,903	0
ECOWAS	700,000	700,000	54,268	645,732	0
Lake Chad/Sahel	1,049,867	1,049,867	99,453	950,414	0
Okavango	900,000	900,000	148,148	751,852	0
Catalytic -Africa wide	2,820,491	2,390,358	1,224,715	1,165,643	430,133
PMU	4,077,279	4,077,279	1,665,132	2,412,147	0
Total	61,672,637	56,242,504	11,322,668	44,919,837	5,430,133

Note : "Allocation" refers to the endorsement of funds by the CIWA AC. "Commitment" refers to recognition by internal World Bank systems that funds have been assigned to a project or activity. Funds are therefore committed when a GFR has been approved by the World Bank trust fund management, putting in place a contractual or scheduled commitment that leads to actual expenditures in the future. "Disbursement" refers to the transfer of funds from the grant account to the client's designated account after a request for specific expenditures is cleared by the Bank. For Bank-executed grants, disbursements are payments made against a purchase order or contract. "Pipeline" activities in the basin are those for which a conditional endorsement was made or subject to approval of the World Bank trust fund management system.

Figure 8: Allocated, Committed, Disbursed, and Pipeline Activity Amounts per Basin/Sub-Program



Going forward, in FY16, CIWA expects to commit an additional US\$5.4 million in the Nile Investment Program, additional financing (AF) for the Zambezi River Basin Development Project implemented by the ZRA, additional support for the Niger Basin Support Program, and an additional knowledge project under the Catalytic Sub-Program. The pace of disbursements is expected to increase as the full portfolio is now in full implementation.

By the end of FY15, CIWA had a cumulative inflow of US\$44.7 million, including US\$44.5 million in donor payments and US\$0.2 million in investment income from the CIWA account. Cumulative disbursements were US\$12.2 million, including US\$11.3 million by projects and US\$0.9 million in administrative fees. The balance of grant commitments totaled US\$44.9 million. Table 7 presents the balance available in the CIWA account, which is approximately US\$32.5 million and a balance of minus US\$12.4 million when the balance of current commitments is included.

Table 7: Fund Balance

Fund Income vs Disbursement & Commitment and Balance	US\$
Total Deposits	44,460,747
Plus current investment interest income	276,138
Total Income	44,736,885
Less disbursements (CIWA projects/activities)	-11,322,668
Less administrative fee accrual of 2% of deposits	-889,214
Balance	32,525,003
Less commitments balance	-44,919,837
Total Balance (when including commitments balance)	-12,394,834

Financial Summary of Program Management

CIWA management costs include expenses incurred by the Program Management Unit (PMU) and the Bank's technical experts who provide strategic advice and support to the overall CIWA program. In addition to staff and consultant costs, this category encompasses costs associated with CIWA donor coordination, outreach and communications, monitoring and evaluation, reporting, partnership meetings, and dissemination activities including website, brochure, and publications, among others.

The CIWA Administration Agreement establishes that PMU costs should not exceed 6 percent of total donor contributions. Since the start of the program, CIWA has spent less than 3 percent of the current envelope, keeping PMU expenses well within the agreed-upon range. Overall, the program has been very cost efficient in its management, benefiting from the solid financial management and monitoring systems put in place at program inception.



CIWA MOVING FORWARD



CIWA's Mid-Term Review

At the mid-point of its intended timeframe (2011–2020), the CIWA program is currently undertaking its mid-term review. The objective of the MTR is to assess the degree to which CIWA is on-track for and fit for purpose in meeting its development objectives moving forward and to assess the relevance of these objectives under the current circumstances. Since most projects began full implementation in FY14 and FY15, the MTR is primarily a “functionality review,” which considers specific elements of CIWA's structure and processes. The MTR also includes a progress review which will assess how the program as a whole is on-track to meet its goals.

The MTR focuses primarily on the following key topics:

- Program relevance, portfolio review and progress
- Program management structure
- Results framework and the monitoring and evaluation system
- Risk management and mitigation measures
- Value for money (VfM)

The review is being conducted through a review of key CIWA documents, followed by a series of interviews with donors, clients, World Bank staff and management, other international financial institutions, regional and continental actors, and other experts in the field of international water resources.

Based on the findings of the MTR, World Bank management, in consultation with the CIWA AC, will determine if program restructuring and reformulation are needed. The program anticipates concluding the MTR in FY16 and undertaking any agreed measures or reforms as soon as possible.



Future Funding Requirements and Resource Mobilization

As this report demonstrates, CIWA has a robust portfolio of engagements and projects across Africa. The majority of CIWA's funding envelope is allocated and committed. All CIWA projects are in the process of being implemented and are beginning to demonstrate results. Disbursements are on the rise and are expected increase in FY16.

Key clients—including the Nile, Zambezi, and Niger basins—have voiced the need for additional support. Ongoing analysis is beginning to reveal ways that other basins, such as Lake Chad, Okavango, and Volta, would benefit from CIWA support. Knowledge management activities are also beginning to deliver results and new needs are continuously being identified.

In FY15, CIWA worked closely with the EC to secure a strategic pledge for additional resources. In the context of the EU “Global Public Goods and Challenges” thematic program and the 2015 Action Program, the EC secured a contribution to CIWA with a budget of €5 million. This contribution will bring the total funding envelope to approximately US\$73.5 million. Although new engagements and projects are subject to endorsement, CIWA has begun to plan funding allocations with the additional financing and it anticipates expanding ongoing work in the Nile Basin, promoting cooperation around critical needs in the Sahel and advancing important catalytic work with a likely focus on the food-water-energy-climate change nexus.

Water and the SDGs: A Strategic Partnership with Development Partners

Important political and organizational shifts are occurring in the world of international development. The international community is expected to reach a historic agreement on the Sustainable Development Goals (SDGs) in September; Goal #6 targets water security by highlighting the need to “Ensure Availability and Sustainable Management of Water and Sanitation for All.” The World Bank Group has sharpened its focus on ending extreme poverty and boosting prosperity and is undertaking a major restructuring in order to best meet these goals. As part of the new era, the World Bank created the Water Global Practice covering all aspects of water – including sanitation, water supply, water quality, water resources, hydraulic infrastructure and irrigation – with the objective of ensuring a “Water Secure World for All.”

The Water GP will be an important implementation arm of the Water SDG. The GP will leverage the Bank's convening power, knowledge, and financial capacity to strengthen and support the governance, financing, and accountability of policies, institutions and investments in the water sector. To realize this potential, the Water GP is in the process of establishing a new framework for partnership that

places the SDGs and the Bank's twin goals at the center of our shared work. The new framework will shift the results agreement with development partners away from inputs towards outputs and outcomes around key thematic areas – Global Solutions Groups (GSGs) – that will focus on specific aspects of the water SDGs. International waters is a key component of the Water Security and Integrated Resource Management GSG and will also draw on and feed into the other GSGs focused on Hydropower and Dams, Water Poverty and the Economy, Water for Agriculture and Water Supply, Sanitation and Water Quality.

In the spirit of the new framework, development partners are being invited to participate in a common governance structure that recognizes the different interest of partners, but emphasizes the water sector and Global Practice as a whole in the context of the SDGs. The proposal is to use the GSGs to more closely link donor funded knowledge, technical support, and innovation with operational and sector teams in order to deliver and enhance knowledge products and direct client advisory services and operations. These links will allow the development partners to leverage the global asset base of the Water Global Practice and scale up their support for the SDGs while ensuring the additionality of their contribution.

Moving forward, CIWA is ready to incorporate the relevant recommendations from the MTR and to adapt to the new organizational structure of the international community vis-à-vis the SDGs to build a stronger CIWA program together with its current and future development partners.

APPENDICES



APPENDIX A: DESCRIPTION OF INVESTMENTS INFLUENCED BY CIWA

Potential Investments

Batoka Gorge HES

As part of its support for the Zambezi River Basin, CIWA was a key player in facilitating resolution of the decades-long impasse between Zambia and Zimbabwe on the Batoka Gorge HES. CIWA conducted an analysis of the financial implications of the stalled development of this long-identified major infrastructure project, and then facilitated negotiations between Zimbabwe and Zambia to review the implications of the analysis and encourage the resumption of project preparation. In FY14, the World Bank signed a grant with the ZRA that supports new engineering studies and an ESIA for the proposed Batoka Gorge HES and other support that will help ZRA to prepare a bankable investment. These studies will allow for the updating of the total expected cost of the project, which a 1993 Feasibility Study found to be US\$2.5 billion. The projected number of potential beneficiaries of the planned energy production of the Batoka Gorge HES is 6 million.⁸

Fomi Dam

The proposed Fomi Dam in Guinea is one of three priority regional infrastructure investments identified by the Niger Basin riparian countries in their 2007 Shared Vision and SDAP. In the scope of its engagement with the NBA to improve water resources management and development in the Niger River Basin, CIWA is facilitating informed regional dialogue and decision-making in the preparation of the potential project. Based on a 1999 Feasibility Study and 2010 ESIA, the proposed investment is worth approximately US\$1 billion and would potentially benefit 30.8 million people: 4.6 million through electricity generation, 25 million through increased food production from irrigated agriculture, 800,000 million through enhanced fisheries, and 500,000 through jobs created. In addition to studies supported by CIWA, it is anticipated that future studies on improved river navigability, reduced impacts of climate variability, and increased local development could impact an even greater number of beneficiaries.

8. This number is the “people-equivalent” figure derived from the mean energy production (estimated at 8,739 GWh/yr by the 1993 feasibility study) and average household consumption in Zambia (estimated 1.2 million households, assuming five people per household) of 7,200 KWh/yr.

Lesotho Highlands – Botswana Water Transfer

In FY15, CIWA signed an agreement with the Government of Botswana (on behalf of the governments of Lesotho and South Africa) to fund an analytical study which will explore the costs and benefits of the transfer of water from the highlands of Lesotho to southern parts of Botswana and northern South Africa. CIWA's support incentivizes cooperation among the riparians around this potential US\$800 million investment. The projected number of potential beneficiaries in Botswana, Lesotho and South Africa is 2 million: 600,000 people in Botswana and 400,000 in South Africa would benefit through the provision of water, and 1 million in Lesotho through additional revenues. Both the estimated cost and number of potential beneficiaries is based on current demographic information and previous water-transfer infrastructure investments; they will be refined upon conclusion of the study and mobilization of the investment.

Nile Basin Investments

CIWA supports the NBI through various projects that facilitate cooperative activities; improve integrated water resources planning and management; and identify and prepare potential investments of regional significance. CIWA's NCORE project in particular supports the NBI in the preparation of multi-sectoral, upstream, and cooperative regional investments, estimated to cost a total of US\$3 billion. CIWA helps advance regional investments by creating feasibility and design studies; packaging investment information for international agreement; and strengthening stakeholder participation. The NBI regional investment portfolio in the Nile Basin is projected to benefit over 4.2 million people through improved watershed management, irrigation, electricity production, and water supply. As preparation studies advance, these figures will be updated to more accurately reflect planned investments and beneficiaries in the Nile Basin.

Mobilized Investments

Kandadji Dam

The Kandadji Dam is one of the three priority regional infrastructure investments identified by the Niger Basin riparian countries in their 2007 Shared Vision and SDAP. The dam is of critical importance for the Niger River Basin as a key element of basin-wide response to extreme weather and hydrological variability, which threaten the agriculture-dominated economies of the basin's nine riparian countries. When completed, it is expected that the Kandadji project will benefit approximately one million people through improved electricity services from 130 MW of installed hydropower capacity, and the development of 45,000 hectares of irrigated land.⁹

9. World Bank. 2012. *Niger - First Part of the Second Phase of the Niger Basin Water Resources Development Program Project*. Washington, DC: World Bank. <http://documents.worldbank.org/curated/en/2012/08/16732231/niger-first-part-second-phase-niger-basin-water-resources-development-program-project>

Furthermore, the infrastructure development of the basin is projected to have a transformational impact on the local economy through job creation.

CIWA influences this investment by conducting two analytical studies related to the dam's implementation:

- An assessment of the first phase of resettlement related to the Kandadji project is underway, with an eye towards learning from good practice in the basin, region and from examples around the world. This study will inform the second phase of resettlement for the Kandadji project and key lessons will be shared with other stakeholders in the basin and region as they expand development of large-scale infrastructure.
- Development of a visualization tool for monitoring and evaluating socioeconomic benefits from the Kandadji project is underway. Lessons learned in development of this cutting-edge tool will be shared with other stakeholders in the region to expand its benefits.

Kariba Dam¹⁰

Operated by the ZRA, the Kariba Dam provides more than 50 percent of Zambia and Zimbabwe's electricity. Through a grant signed with the ZRA in FY14, CIWA provided a platform for riparians and financiers to reopen promising discussions on the crucial rehabilitation of the Kariba Dam, which has been in operation since 1960. These discussions led to the initiation of a project to assist in improving the safety and reliability of the Kariba Dam through an investment of US\$294 million. In addition to the World Bank Group, which contributed a US\$75 million loan to Zambia, donors to the project include the ZRA (US\$19 million), the Africa Development Bank (US\$75 million), the European Union (US\$100 million), and the Government of Sweden (US\$20 million). By forestalling the failure of the power production and flood control capabilities of the Kariba Dam, the project will impact an estimated 4.5 million people through securing their lives and livelihoods.

Volta Basin¹¹

In FY15, CIWA leveraged direct investment in water resources management through a US\$10.94 million grant to the VBA which is co-funded by the GEF. The third component of the project – "Implementation of Strategic Action Programme Priority Actions" – constituting US\$6.9 million, will support direct investments that lead to improvements in water quality, flows, and ecosystem services. It is expected that 50,000 people in the Volta River Basin will benefit from irrigation development, enhanced fisheries, improved pastoral activities, and job creation, with 20 percent of those beneficiaries being women.

10. For more information, see "Kariba Dam Rehabilitation Project," accessed August 20, 2015, <http://www.worldbank.org/projects/P146515?lang=en>

11. For more information, see "Project Appraisal Document on Proposed Grants to the VBA," April 30, 2015, http://www-wds.worldbank.org/external/default/WDSPContentServer/WDSP/IB/2015/05/05/090224b082e409d4/2_0/Rendered/PDF/Africa000Volta0plementation0Project.pdf

APPENDIX B: FINANCIAL DETAILS OF PROJECTS FUNDED BY CIWA

Basin/Sub-program	Executed by	Fund Name	TF#	Project #	Grant Amount	Total Disbursement
NIGER	NBA	Niger River Basin Management Project	TF018539	P149714	7,500,000	0
	WB	Niger Basin Support Program*	TF018616	P148889	1,000,000	71,801
	WB	Enhanced Preparation & Supervision (NBA)	TF016609	P149714	450,000	212,862
		Niger Total			8,950,000	284,663
NILE	NBI (incl NEL, EN)	Nile Cooperation for Results (NCORE) + AF I	TF013767	P130694	14,500,000	4,848,129
	NBD	Engaging Civil Society for Social and Climate Resilience in the Nile Basin	TF015834	P132448	1,500,000	855,168
	NBI (incl NEL, EN)	Nile Basin Engagement incl. LVBC (subject to contingency of NBI financial strategy)*	tbd	P156765	3,000,000	0
	WB	Nile Basin Support Program		P156765	1,000,000	0
	WB	Enhanced Preparation & Supervision (NBD)	TF014064	P132448	400,000	135,809
	WB	Enhanced Preparation & Supervision (NCORE)	TF015335	P130694	450,000	26,519
		Nile Total			20,850,000	5,865,625
VOLTA	VBA	Volta River Basin Institutional Support Project	TF016611	P147202	3,500,000	0
	WB	Volta Basin Support Program	TF015556	P132564	500,000	29,941
		Enhanced Preparation & Supervision (Volta)	TF015557	P147202	450,000	266,958
		Volta Total			4,450,000	296,899
ZAMBEZI	ZAMCOM	Zambezi River Basin Management Project (ZAMCOM)	TF018921	P143546	4,000,000	0
	ZRA	Zambezi River Basin Development Project (ZRA)	TF016238	P133380	6,000,000	500,000
	ZRA	AF - Zambezi River Basin Development Project (ZRA)	tbd	P143546	1,500,000	0
	WB	Zambezi River Basin Support Program	TF011577	P129683	1,000,000	512,195
	WB	Enhanced Preparation & Supervision (ZAMCOM)	TF014926	P143546	450,000	294,454
	WB	Enhanced Preparation & Supervision (ZRA)	TF014927	P133380	450,000	209,804
		Zambezi Total			13,400,000	1,516,453

Basin/Sub-program	Executed by	Fund Name	TF#	Project #	Grant Amount	Total Disbursement
ORANGE-SENQU	Botswana	Lesotho Highlands - Botswana Water Transfer	TF016233	P144228	2,000,000	0
	WB	Enhanced Preparation & Supervision (LH-B)	TF016038	P144228	175,000	43,215
		OS Total			2,175,000	43,215
SADC	SADC	Sustainable Groundwater Management in SADC Member States	TF016748	P127086	2,000,000	0
	WB	Enhanced Preparation & Supervision (SADC)	TF015336	P127086	300,000	124,097
		SADC Total			2,300,000	124,097
CATALYTIC PROGRAM	Opportunistic Engagement by WB	WRM in West Africa (ECOWAS)	TF016610	P150210	700,000	54,268
		Lake Chad Policy Dialogue	TF015878	P144568	1,049,867	99,453
		Okavango Multi-Sector Investment Analysis	TF0A0105	P150383	900,000	148,148
	Africa Wide by WB	P1: Strategic Overview of International Waters in Africa	TF011569	P129776	280,358	280,358
		P1: Economic Rational for Cooperation	TF011626	P129777	380,000	249,742
		P1: Political Economy Analysis	TF016821	P150210	520,000	342,551
		P3: Facilitating Africa Wide Hydromet Services	TF0A0106	P151921	100,000	6,740
		P3: Cooperation for Climate Resilience	TBD	TBD	150,000	27,380
		P4: Capacity Building and Knowledge Exchange	TF0A0107	P149931	300,000	272,750
		P4: Improving Public Access to Basin Data	TF016747	P149868	300,000	
		Pipeline	TBD	TBD	430,133	
		Peer Review / Management	TF019125	PA149048	360,000	45,194
		Catalytic Total			5,470,358	1,526,584
		Sub-total (projects)			57,595,358	9,657,535
PMU	WB	Program Management and Administration	TF011372/ 11377	P122345	4,077,279	1,665,132
		TOTAL			61,672,637	11,322,668

APPENDIX C: CIWA'S RESULTS FRAMEWORK AND MONITORING¹²

(updated August 2015)

IMPACT: Strengthen sustainable climate-resilient growth in Sub-Saharan Africa

Indicator	Target FY12 ¹³	Target FY13	Target FY14	Target FY15	Target FY16	Target 2020
Program Development Objective: To strengthen cooperative management and development of international waters in Sub-Saharan Africa to aid sustainable climate resilient growth.						
i) US\$ financing mobilized for cooperative management and development of international water resources projects supported by CIWA ¹⁴ Baseline: \$0 billion (value of projects influenced by CIWA)	\$2 billion (value of potential projects influenced by CIWA) FY12 Achievement: \$2.5 billion potential investment influenced	\$4 billion (value of potential projects influenced by CIWA) FY13 Achievement: \$4.02 billion potential investment influenced	\$6 billion (value of potential projects influenced by CIWA) FY14 Achievement: \$7.8 billion potential investment influenced	\$8 billion (value of potential projects influenced by CIWA) FY15 Achievement: \$7.6 billion potential investment influenced \$1.3 billion mobilized investments influenced	\$8 billion (value of potential projects influenced by CIWA)	US\$10 billion mobilized for cooperative management and development international waters projects
ii) Number of people directly benefiting from improved water resources management and development in target basins through projects supported by CIWA Baseline: 0 people directly benefiting	3 million (potential direct beneficiaries of projects influenced by CIWA) FY12 Achievement: 6 million potential direct beneficiaries	6 million (potential direct beneficiaries of projects influenced by CIWA) FY13 Achievement: 13.2 million potential direct beneficiaries	8 million (potential direct beneficiaries of projects influenced by CIWA) FY14 Achievement: 46 million potential direct beneficiaries	10 million (potential direct beneficiaries of projects influenced by CIWA) FY15 Achievement: 43 million potential direct beneficiaries 5.6 million direct beneficiaries of mobilized investments influenced	15 million (potential direct beneficiaries of projects influenced by CIWA)	50 million people directly benefiting from improved water resources management and development projects

IMPACT: Strengthen sustainable climate-resilient growth in Sub-Saharan Africa

Indicator	Target FY12 ¹³	Target FY13	Target FY14	Target FY15	Target FY16	Target 2020
Intermediate Result 1. Regional cooperation and integration strengthened						
j) Number of relevant transboundary institutions strengthened to improve regional cooperation	2 project design outlines completed for projects that aim to strengthen regional cooperation and integration FY12 Achievement: 2 relevant project design outlines completed	3 basins with programs and CSPs designed FY13 Achievement: 3 basins with programs and CSPs designed	4 basins or RECs with programs and CSPs designed FY14 Achievement: 4 basins with programs and CSPs designed			8 transboundary institutions in at least 5 basins have strengthened regional cooperation and integration
Baseline: 0 institutions strengthened		3 basin institutions with projects in operation that contribute to strengthening regional cooperation and integration FY13 Achievement: 3 basin institutions have contributing projects in operation	5 relevant institutions with projects or activities in operation FY14 Achievement: 5 relevant institutions with projects in operation	6 relevant institutions with projects or activities in operation FY15 Achievement: 7 relevant institutions with projects in operation	6 relevant institutions with projects or activities in operation	
ii) Number of strategic analyses and knowledge products used to illustrate the evidence base for cooperation, needs, and challenges Baseline: 0 strategic analyses conducted by CIWA			3 strategic analyses conducted FY14 target partially met: Many strategic analyses are underway, one is complete.	4 strategic analyses conducted FY15 target partially met: Many strategic analyses are underway, two are complete.	5 strategic analyses conducted	10 strategic analyses used to illustrate the evidence base for cooperation

IMPACT: Strengthen sustainable climate-resilient growth in Sub-Saharan Africa

Indicator	Target FY12 ¹³	Target FY13	Target FY14	Target FY15	Target FY16	Target 2020
Intermediate Result 2. Water resources management strengthened						
i) Number of relevant transboundary institutions using improved analytical tools, knowledge products, data, forecasting, and/or capacity for improved water and climate risk management or investment operation coordination	2 project design outlines completed for projects that aim to strengthen water resources management	3 basins with programs and CSPs designed				5 institutions in at least 4 basins using improved analytic tools, knowledge products, data, forecasting, and/or capacity for improved water and climate risk management or investment operation coordination
Baseline: 0 institutions using tools, data and capacity improved with CIWA support	FY12 Achievement: 2 relevant project design outlines completed	FY13 Achievement: 3 basins with programs and CSPs designed				
		3 basin institutions with operation that contribute to strengthening water resources management	4 relevant institutions with projects in operation that improve water and climate risk management and/or investment operation coordination	5 relevant institutions with projects in operation that improve water and climate risk management and/or investment operation coordination	5 relevant institutions with projects in operation that improve water and climate risk management and/or investment operation coordination	
		FY13 Achievement: 3 basin institutions have contributing projects in operation	FY14 Achievement: 5 relevant institutions have projects in operation that contribute to strengthening water resources management	FY15 Achievement: 5 relevant institutions have projects in operation that contribute to strengthening water resources management		

IMPACT: Strengthen sustainable climate-resilient growth in Sub-Saharan Africa

Indicator	Target FY12¹³	Target FY13	Target FY14	Target FY15	Target FY16	Target 2020
Intermediate Result 3. Water resources development strengthened						
i) Number of investment opportunities with regional benefits that have been advanced through CIWA support Baseline: 0 investment opportunities with regional benefits advanced by CIWA	2 project design outlines completed for projects that aim to strengthen water resources development FY12 Achievement: 2 relevant project design outlines completed	2 basin institutions with projects in operation FY13 Achievement: 2 basin institutions have contributing projects in operation	2 investment opportunities with regional benefits influenced by projects in operation FY14 Achievement: Multiple investment projects are being advanced by projects in operation.	4 investment opportunities with regional benefits influenced by projects in operation FY15 Achievement: 22 investment projects are being advanced by projects in operation.	6 investment opportunities with regional benefits influenced by projects in operation.	10 investment opportunities with regional benefits that have been advanced through CIWA support
ii) Number of relevant transboundary institutions with an improved approach to sustainable investment planning and bankable investment preparation ¹⁵ Baseline: 0 basins supported by CIWA			2 institutions with projects in operation that improve the approach to sustainable investment planning and bankable investment preparation FY14 Achievement: 2 institutions have relevant projects in operation	3 institutions with projects in operation that improve the approach to sustainable investment planning and bankable investment preparation FY15 Achievement: 3 institutions have relevant projects in operation	4 institutions with projects in operation that improve the approach to sustainable investment planning and bankable investment preparation	5 relevant transboundary institutions with an improved approach to sustainable investment planning and bankable investment preparation

IMPACT: Strengthen sustainable climate-resilient growth in Sub-Saharan Africa

Indicator	Target FY12 ¹³	Target FY13	Target FY14	Target FY15	Target FY16	Target 2020
Intermediate Result 4. Stakeholder engagement and coordination strengthened						
i) Number of basins with improved engagement with civil society, private sector and academia; percentage of basins with improved engagement of organizations representing the interests of women and/or the poor	2 project design outlines completed for projects that aim to strengthen stakeholder engagement and coordination	3 basins with programs and CSPs designed FY13 Achievement: 3 basins with programs and CSPs designed				5 basins with improved engagement with civil society, private sector and academia; 60 percent with improved engagement of women and/or the poor
Baseline: 0 basins with improved engagement						

IMPACT: Strengthen sustainable climate-resilient growth in Sub-Saharan Africa

Indicator	Target FY12 ¹³	Target FY13	Target FY14	Target FY15	Target FY16	Target 2020
		3 basin institutions with projects in operation that contribute to strengthening stakeholder engagement and coordination	3 basins with projects or activities in operation; 30 percent of which include organizations representing interests of women and/or the poor	4 basins with projects or activities in operation; 50 percent of which include organizations representing interests of women and/or the poor	4 basins with projects or activities in operation; 50 percent of which include organizations representing interests of women and/or the poor	
		FY13 Achievement: 3 basin institutions have contributing projects in operation	FY14 Achievement: 4 basin institutions have projects in operation that contribute to strengthening stakeholder engagement; only 25% of which have an explicit linkage with organizations representing the interests of women	FY15 Achievement: 5 basin institutions have projects in operation that contribute to strengthening stakeholder engagement; only 20% of which have an explicit linkage with organizations representing the interests of women		
i) Number of basins with increased water resources management and development information in the public domain			1 basin with increased information in the public domain	2 basins with increased information in the public domain	3 basins with increased information in the public domain	5 basins with increased information in the public domain
Baseline: 0 basins			FY14 Achievement: 1 basin has increased information in the public domain	FY15 Achievement: 1 basin has increased information in the public domain		

12. For additional information regarding CIWA's Results Framework, indicators, targets, data sources and terminology used, please see the document titled "CIWA's Results Framework and Monitoring" on the CIWA website.

13. Note that targets and achievements for all indicators are cumulative.

14. Note that values may fluctuate as potential investments are mobilized or as additional project specifications become available.

15. Sustainable investment preparation includes consideration of poverty, gender, long-term climate change among other social and environmental considerations

APPENDIX D: CIWA'S RISK ANALYSIS FRAMEWORK

The overall risk level of CIWA is medium to high. This program level risk rating is informed by the varying levels of risk within the program.

At the impact level, the risk is high. This is a result of political risks, both regional and national, that influence the ability to sustain deep, long term cooperation and effective transboundary water management.

The risk at the outcome level is medium to high. This reflects the mix of low to medium risks at the output level, and the need for a combination of political as well as technical progress to achieve desired outcomes. Technical progress is generally low risk, but sustaining technical achievements amidst favorable political progress (for example, negotiations and effective cooperation) is higher risk. While political risks are generally outside the control of the program, the World Bank is strengthening the role of political economy analyses in the design and management of CIWA's engagement with specific basins and diversifying its portfolio across Africa, which will mitigate the effect of this exogenous risk to the overall program. In addition, this risk rating includes the fact that CIWA may not reach its funding envelope target of \$200 million dollars and therefore may not be able to fully reach targets originally set out in its Results Framework based on the target funding envelope.

This document presents a matrix with key risks identified at the program level as well as corresponding mitigation actions that have been applied. While this program level risk analysis is informed by the many risks in various basins, individual basin and project-specific risk analyses and associated mitigation measures are not detailed in this matrix. However, they are included in basin and project-specific documentation. All World Bank programs and projects require assessment and appropriate documentation of operational risk and mitigation measures during the project approval process. Once a recipient-executed project is operational, the Bank conducts significant technical and financial oversight, including consideration of how risks, after being initially identified, then affect implementation. When a project is being evaluated for restructuring or additional financing, the Bank re-considers operational risks and incorporates any new risk mitigation measures that are required. In addition, for the CIWA program, each basin program is guided by the BAC which, in its annual meetings, reviews progress in program implementation, evaluates basin-level risks, and identifies strategic responses.

Recognizing the dynamic nature of risks and the need to actively manage them throughout the course of the program, CIWA continuously evaluates risks and mitigation measures as well as the acceptability of residual risk, and updates the risk matrix on an annual basis.

	Risk description	Probability / Impact before mitigation	Mitigation applied	Probability / Impact after mitigation
Political & Developmental Risks				
1.	Challenging political context. All work in international waters has an inherent risk that domestic or international political issues (related or unrelated to water issues) may negatively impact the context in which such projects operate, resulting in long-term delay or even failure of specific projects, which could impact the success of the program. This risk is often beyond the scope or the influence of CIWA or of its partner organizations (RBO, REC, CSO, or other regional organizations).	Probability: High Impact: High	<p>CIWA has diversified its portfolio in terms of both geography (programs in East, West, Central, and Southern Africa) and types of support (focus on strengthening information, institutions, and infrastructure). While the political context may be challenging for one type of work in a particular region, it may be less so for another type or in another region. Portfolio diversification helps mitigate political risks at the program level.</p> <p>In addition, political economy issues are considered whenever possible in CIWA program planning. Basin programs in the Nile and Zambezi are informed by corresponding PEA, which help to better understand risks, formulate mitigation strategies that enable effective program implementation, and design projects within an acceptable risk appetite. To further mainstream the use of PEA in informing its work, CIWA has prepared a PEA Framework and three basin-specific case studies for the Niger, the Lake Chad and the Nile Equatorial Lakes region to inform preparation and supervision of existing projects and identification of future activities.</p>	Probability: Medium Impact: Medium
2.	Insufficient basin-wide commitment. Some countries within a basin may not have formal membership in the participating basin organizations and/or may challenge the basin organization's engagement with CIWA.	Probability: Medium Impact: Medium	<p>Confidence-building measures are necessary to ensure progress. While it is recognized that it is not always possible to have all riparians formally committing, CIWA provides an inclusive platform in the form of the BAC where it encourages participation of all relevant stakeholders. CIWA uses this platform to provide an open invitation to all relevant stakeholders to identify the long-term action plan for CIWA engagement in a way that responds to the needs of the basin and where relevant, aligns with regional and national priorities as well as with other development interventions in the basin.</p> <p>In addition, for all applicable projects, CIWA follows the World Bank Safeguards Policy on international waters OP 7.5, which, in the absence of appropriate agreements or arrangements for the entire waterway, or parts thereof, requires the beneficiary state to formally notify other riparians of the proposed project. The Policy lays down detailed procedures for notification, including the role of the Bank, period of reply, and the procedures to follow in case there is an objection by one of the riparians to the project.</p>	Probability: Low Impact: Low

	Risk description	Probability / Impact before mitigation	Mitigation applied	Probability / Impact after mitigation
3.	Inadequate stakeholder voice. Stakeholders may not fully engage in the project cycle, resulting in an inadequate voice in decision-making and raising the potential of public protest or civil action that could jeopardize or delay development projects.	Probability: Low Impact: Medium	<p>CIWA prioritizes the involvement of stakeholders; indeed, one of its four result areas aims to strengthen stakeholder engagement in water resources management and development. CIWA emphasizes creating a favorable upstream environment for development projects and in many cases facilitates bringing stakeholders into the dialogue and sharing information in the public domain, thereby mitigating the risk of resistance.</p> <p>Moreover, CIWA-supported basin programs convene all relevant stakeholders in the annual meeting of the BAC, which shapes CIWA's long term strategy in the basin, and shares information and gathers feedback on project cycle details.</p>	Probability: Low Impact: Medium
Operational Risks				
4.	Inadequate coordination between participating basin organizations. If participating basin organizations have mutually inconsistent objectives, this may weaken the overall development effectiveness of CIWA's program.	Probability: Medium Impact: Medium	CIWA works to encourage and motivate strong cooperative working relationships. A CSP is developed for all basins or regions in which CIWA has a long term engagement. The CSP captures how CIWA projects are integrated with the broader objectives of each of the participating basin organizations. A CIWA BAC comprised of basin-level membership coordinates all the projects that are undertaken within the CSP.	Probability: Low Impact: Medium
5.	Inadequate implementation capacity and readiness can cause short to medium-term delay. Some basin organizations may have insufficient capacity or experience to effectively engage in basin management and development, causing delays in project implementation which could affect the overall pace of the program achieving its objectives.	Probability: High Impact: Medium	During project development, World Bank experts assess implementation capacity and readiness of the recipient organization and plan the magnitude and complexity of CIWA's engagement accordingly. The Bank may provide support for financial management, procurement, and project management. Project supported capacity enhancement might also be a contingency for project approval; for example, a project may be conditioned on the hiring of an environmental and social expert to provide safeguards support. Many projects address this risk by designating an institutional support and capacity building component that mitigates this risk. In addition, CIWA may employ Bank-executed programming as an initial financing modality to strengthen recipient implementation capacity and readiness.	Probability: Medium Impact: Low

	Risk description	Probability / Impact before mitigation	Mitigation applied	Probability / Impact after mitigation
6.	Technical complexity of international water projects can lead to long-term delay. International water programs are inherently complex and require seasoned perspective to avoid pitfalls and errors that can seriously undermine management and progress of development projects and cause long-term delays.	Probability: Low Impact: Medium	CIWA taps into the strong technical expertise of World Bank staff while developing projects with the client and also as needed during project implementation. In addition, CIWA draws from external continental as well as global experience as needed to bolster technical capacity required for project design and implementation. The CIWA Panel of Experts forms the first line of expertise that provides strategic as well as technical guidance. Additionally, through the CG, CIWA benefits from region-specific expertise of key Africa water sector professionals.	Probability: Low Impact: Low
7.	Insufficient World Bank capacity to engage across an increasing number of basins.	Probability: Medium Impact: Medium	Before starting an engagement with a new basin, CIWA ensures that there is sufficiently strong technical capacity as well as regional experience to lead the engagement within the World Bank. In most cases, previous Bank engagements have already established a deep partnership with the region, which new CIWA engagements build upon. CIWA also mitigates this risk by collaborating closely with Bank country offices as well as by drawing on local knowledge of other partners. Transparency and good information flows between the Bank and partners helps ensure a strong partnership. In addition, CIWA made the strategic decision to focus the majority of its existing resources on four priority basins, thus reducing the need to increase the number of teams focused on basin work.	Probability: Low Impact: Low
8.	Inadequate prioritization of stakeholder engagement and coordination (Intermediate Results Area 4) and engagement with organizations that represent the interest of women and vulnerable people.	Probability: Medium Impact: Medium	When starting a new engagement in a priority basin, CIWA works with the client to develop balanced support that cuts across the four results areas. Due to funding limitations, recently endorsed projects in the Volta and Niger basins were unable to include activities in all four results areas and stakeholder engagement did not receive adequate support. If additional funds become available, CIWA must consider how to support stakeholder engagement in its priority basins in a meaningful way. Likewise, future support for stakeholder engagement should consider how to engage organizations that represent the interests of women and vulnerable people.	Probability: Low Impact: Medium

	Risk description	Probability / Impact before mitigation	Mitigation applied	Probability / Impact after mitigation
Financial Risks				
9.	Available CIWA financing is insufficient to meet demand. Insufficient financing can risk raising expectations of potential recipient partners. Participating donors may be slow to commit resources relative to the demand for engagement by recipient basin organizations.	Probability: High Impact: High	<p>CIWA's current funding envelope is nearly fully committed. Additional demand from current and potential partners exceeds current funding expectations.</p> <p>CIWA is actively working to mobilize additional funding and requests development partners to facilitate fund mobilization from their positions. CIWA will continue to update required funding amounts during AC meetings, as well as in the CIWA Annual Report.</p> <p>CIWA conducts regular and careful management of the pipeline of potential projects to match demand response to available resources. As expected, there is a time lag between when a donor pledges funds, when those funds can reasonably be committed to a basin program, and when that program can spend the funds.</p>	Probability: High Impact: High
10.	Fraud and funds not being used as intended.	Probability: Low Impact: High	<p>The World Bank requires all trust fund beneficiaries and bidders to observe the highest standard of ethics in Bank-financed grants and contracts. All CIWA grants are subject to the Bank's Anti-Corruption Guidelines,¹⁶ the Procurement¹⁷ and Consultant¹⁸ Guidelines, and the Standard Conditions for Trust Fund Grants,¹⁹ which delineate standard operating procedures for any fraud issues. The Anti-Corruption Guidelines provide for certain actions to be taken by grant recipients to prevent and combat fraud and corruption and the Standard Conditions provide for suspension and/or cancellation of disbursements, as well as the refund of disbursed grant proceeds in the event that fraud and corruption does occur.</p> <p>All recipient-executed projects are audited annually by an external auditor as specified in the grant agreement. The Bank may require less frequent audits for small grants while retaining the right to request an audit as needed. Contributing development partners agreed to amend the Administrative Agreement with the World Bank to include both a management fee and enhanced supervision to facilitate this process. Any audits that highlight issues will be raised and discussed with the CIWA AC.</p>	Probability: Low Impact: Medium

	Risk description	Probability / Impact before mitigation	Mitigation applied	Probability / Impact after mitigation
Sustainability Risk				
11.	CIWA support for investments in institutions, information systems, and infrastructure is not sustained or advanced by riparians. CIWA operates upstream of actual investment and has limited control over country uptake, investment plans, and sustained support for institutions. This risk becomes even more relevant as financiers other than the World Bank, with more flexible preparation standards, play an increasingly prominent role in financing infrastructure in Africa. This risk builds off of other risks listed in the table (for example, insufficient political will, or inadequate country buy-in) but is important to consider separately because it feeds directly into the objectives, indicators, and targets by which the program evaluates its success as delineated in its Results Framework.	Probability: Medium Impact: Medium	CIWA is demand driven and responds to the requests of riparians and their organizations. CIWA also maintains a diversified portfolio and continued dialogue with important actors that influence investment in Africa. In addition, CIWA has the opportunity to revisit and reconsider how it addresses this risk as part of the ongoing 2015 MTR.	Probability: Medium Impact: Medium

16. Available at http://siteresources.worldbank.org/INTOFFEVASUS/Resources/WB_Anti_Corruption_Guidelines_10_2006.pdf

17 Available at http://siteresources.worldbank.org/INTPROCUREMENT/Resources/Procurement_GLS_English_Final_Jan2011_revised_July1-2014.pdf

18. Available at http://siteresources.worldbank.org/INTPROCUREMENT/Resources/Consultant_GLS_English_Final_Jan2011_Revised_July1_2014.pdf

19. Available at <http://siteresources.worldbank.org/INTLAWJUSTICE/Resources/STDGC-English-12.pdf>

APPENDIX E: VALUE FOR MONEY IN CIWA'S PROGRAM DESIGN AND IMPLEMENTATION

Summary Value for Money (VfM) Statement

The CIWA program design and delivery prominently incorporates VfM principles.²⁰ Guided by its cost saving measures in program management and administration as well as project preparation and supervision, CIWA operates within its economy targets. CIWA has not only successfully kept costs down, it has maintained a high quality in its interventions and met its basin and program level output and outcome targets, thereby achieving a good return on the financial support provided by development partners.

CIWA's positioning within the World Bank has been crucial to achieving economy, and to leveraging technical and financial support in a way that has a multiplier effect on efficiency and effectiveness. This has been accomplished in the following ways:

- By tapping into the World Bank's experience and expertise in managing trust funds, thereby streamlining administration costs
- By leveraging strong technical expertise of Bank staff across a wide range of relevant sectors
- By drawing on the Bank's longstanding experience in international water cooperation through other programs such as the NBTF, South Asia Water Initiative, Water Partnership Program, among others
- By tapping into the Bank's deep partnerships with global collaborators to leverage regional experience and networks
- By leveraging additional sources of financing, such as from the GEF, for CIWA-supported projects
- By leveraging multiple sources of follow-up financing such as IDA, AfDB, and other investors for projects where CIWA supports bankable project preparation

20. CIWA evaluates its VfM using DFID's 3Es Framework, defined in "DFID's Approach to Value for Money," July 2011 as:

- Economy – Are we or our agents buying inputs of the appropriate quality at the right price? Inputs are things such as staff, consultants, raw materials, and capital that are used to produce outputs.
- Efficiency – How well do we or our agents convert inputs into outputs? Outputs are results delivered by us or our agents. We or our agents exercise significant control over the quality and quantity of outputs.
- Effectiveness – How well are the outputs from an intervention achieving the desired outcome? Note that in contrast to outputs, we or our agents do not exercise direct control over outcomes.

What measures can be used to assess VfM for CIWA?

The following measures can be used to assess CIWA's economy, efficiency, and effectiveness, which together characterize the program's VfM:

Economy

Standard Bank Administrative Fee. Set at 2% of received contributions;²¹ this fee covers a range of general services provided by the World Bank's Central Units – treasury, accounting, disbursements, preparation of un-audited financial statements, annual audits, supervision of external audits, donor relations including negotiating framework agreements, and so forth.²² By covering these essential services with one standard fee, CIWA limits transaction costs and ensures that an enabling environment is provided for the managing and disbursing units to properly perform their responsibilities for the program.

Program Management and Administration. Capped at 6% of contributions to the fund, this fee covers all management and administration responsibilities of the PMU including development and implementation of program-specific management tools, procedures, and systems; negotiating the replenishment and expansion of existing programs; soliciting and evaluating activity proposals and allocating programmatic funds to implementing units; work program planning; program level resource planning; budget planning and management; program monitoring and evaluation; program communications and outreach; donor visibility, donor coordination, and donor meetings; and results reporting for the program.

Enhanced Preparation and Supervision. To ensure high quality program delivery, World Bank policies require ensuring that implementation of trust fund activities complies with applicable Bank policies and procedures²³ and that all recipient-executed activities are adequately supervised and implemented in line with the terms and conditions of the Administration and Grant Agreements as well with Bank supervision standards and procedures. Estimated at 6% of contributions to the fund, this fee covers the cost of identifying and scoping possible projects, supporting preparation and undertaking supervision. As specified in the Administration Agreement, the Bank will seek the CIWA AC's prior approval in case enhanced supervision costs of CIWA activities increase beyond the amount noted in the administration agreement, and these costs increase as a result beyond 6%.

CIWA has established certain norms to maintain Enhanced Supervision costs under 6% of contributions to the fund – one-time identification and preparation cost of US\$150,000 per project; and implementation supervision cost of US\$100,000

21. A standard fee is applied to all contributions to World Bank trust funds based on the characteristic of the trust fund.

22. A complete list of general services covered by the Standard Bank Administrative Fee can be found in Annex 3 (3.1) of the Administration Agreement

23. World Bank CFPTO Trust Fund Handbook (revised July 8, 2010)

per year for three years over the duration of a project. The CIWA norm for enhanced supervision costs are lower than standard IDA operation costs. World Bank Africa Region data shows that the average cost to prepare an investment project is around US\$350,000 and the annual cost for supervision of a project around US\$150,000. Costs for preparation and supervision of regional projects under IDA are normally expected to be higher due to additional complexity. CIWA achieves lower costs by basing budgets for projects on a careful assessment of estimated costs as well as through effective procurement processes, cost-sharing and greater travel efficiencies, using video connection for meetings where possible, convening different CIWA meetings back-to-back where feasible and linking to other water sector related meetings to take advantage of synergies.

Leverage Ratio. CIWA improves its economy by leveraging additional sources of funding where available and appropriate to projects, thereby reducing its unit cost of inputs in relation to the overall sum of outputs it mobilizes. CIWA uses the following metric as an indicator of increased economy due to leveraging of funds from additional sources:

$$\text{Leverage ratio} = \frac{\sum \text{Funds leveraged from additional sources for CIWA projects}}{\sum \text{CIWA contributions to cofinanced projects}}$$

In terms of leveraging additional funds to improve the economy of CIWA supported projects (by expanding overall output and thus reducing per unit cost of CIWA inputs), CIWA has established partnerships with the NBTf to co-finance the NCORE project and with the GEF to co-finance two projects – led by SADC on groundwater management and led by the VBA on institutional strengthening and watershed management.

Following is CIWA's leverage ratio at close of FY15, which illustrates CIWA's economy in relation to CIWA contributions.

Project	CIWA Contribution (million US\$)	Co-financier	Partner Contribution (million US\$)
NCORE	14.5	NBTf	16.5
SADC Engagement	2.0	GEF	8.2
Volta River Basin Institutional Development and Strategic Action Programme Implementation Project	3.5	GEF	7.2
CIWA contribution	20.0	Leveraged funds	31.9

Leverage ratio = 1.6, i.e., on average, for every dollar that CIWA contributed to a co-financed project, CIWA was able to leverage additional funding sources to provide an input of 1.6 dollars to the project.

Efficiency

Intermediate Results Areas Indicators. CIWA focuses its project-level work in four intermediate results areas. Progress in these areas is measured using their corresponding indicators, as listed in the CIWA Results Framework in Appendix

C. CIWA uses these indicators to measure its efficiency, i.e. its ability to achieve intended outputs towards its development objective. These indicators reflect the short and medium-term benefits generated by CIWA support. In FY15, CIWA fully met its targets for the majority of its indicators in the four intermediate results areas. It is making progress towards the remaining targets and is on track for meeting most targets when the program closes. More detail on results reporting can be found in Section 5 of this report.

The indicators found in CIWA's Results Framework, however, do not fully capture secondary and tertiary benefits of CIWA support. A transboundary institution strengthened by CIWA, for example, is able to facilitate a series of subsequent regional cooperation actions. A vast number of people receive various levels of benefits as a result of each cooperative action facilitated by the strengthened transboundary institution. These outputs are counted and reported on at the basin and project level but are too broad and distinct to aggregate at the program level, given the nature of issues supported and the timeframe it takes for such benefits to manifest. In the long run therefore, CIWA's actual efficiency is greater than that quantified through the indicators in its Results Framework.

Effectiveness

PDO-level Indicators. CIWA measures its effectiveness, i.e. its ability to achieve its intended program outcomes, through its two PDO-level indicators listed in the CIWA Results Framework in Appendix C; further reporting on results is included in Section 5 of this report. These indicators reflect the long-term benefits generated through CIWA support.

CIWA fully met its effectiveness targets in FY15. In FY15, the total investment financing influenced by CIWA (mobilized and potential) was US\$8.9 billion. This comprises of US\$7.6 billion in potential financing influenced and US\$1.3 billion in mobilized financing influenced, and surpasses CIWA's FY15 target of potentially mobilizing US\$8 billion. CIWA surpassed its target of 10 million potential direct beneficiaries for the same reporting period, by potentially benefitting an estimated 43 million direct beneficiaries through potential investment projects influenced by CIWA and 5.6 million direct beneficiaries of mobilized investments influenced by CIWA.

Investment Financing Influenced Ratio & Potential Beneficiaries Ratio.

CIWA further uses the following two metrics to measure its effectiveness in using its available resources to achieve target outcomes:

$$\begin{aligned} &\text{Investment financing influenced ratio} \\ &= \frac{\Sigma \text{Investment financing influenced (US\$)}}{\Sigma \text{US\$ funding in operation that influence investments}} \end{aligned}$$

$$\begin{aligned} &\text{Potential beneficiaries ratio} \\ &= \frac{\Sigma \text{Potential direct beneficiaries from investments influenced}}{\Sigma \text{US\$ funding in operation that influence investments}} \end{aligned}$$

Following are CIWA's investment financing influenced ratio and potential beneficiaries ratio at close of FY15, which illustrate CIWA's effectiveness in relation to CIWA funding in operation.

Project	CIWA Contribution (million US\$)	Influenced Investment Value (million US\$)	Potential Number of Direct Beneficiaries (million)
Zambezi River Basin Development Project - Batoka Gorge HES	7.5	2500	6
Niger River Basin Management Project – Fomi Dam	7.5	1300	30.8
Nile Cooperation for Results Project	14.5	3000	4.2
Lesotho Highlands-Botswana Water Transfer Project	2	800	2
Zambezi River Basin Development Project – Kariba Dam	7.5 (counted above)	250	3
Niger River Basin Management Project – Kandadji Dam	7.5 (counted above)	1000	1
Volta River Basin Strategic Action Programme	3.5	6.9	0.05
Total	35	8856.9	47.05

Investment financing influenced ratio= 253, i.e., on average, for every dollar that CIWA contributed, the investment financing it influenced (potential and mobilized investments) was US\$253.

Potential beneficiaries ratio = 1.34 beneficiaries/US\$ contributed, i.e., on average for every US\$0.74 that CIWA contributed, 1 person will potentially directly benefit through successfully mobilized financing.

Commercial Improvement and VfM

CIWA maintains economy in its procurement, minimizing costs and ensuring high quality, by requiring that all recipient-executed activities finance goods, works, and services in accordance with the Bank's guidelines on "Procurement under IBRD Loans and IDA Credits" and the Bank's guidelines on the "Selection and Employment of Consultants by World Bank Borrowers," jointly referred to as the "Procurement and Consultant Guidelines."²⁴ Similarly, for all Bank-executed CIWA activities, the Bank is responsible and carries out procurement of goods as well as employment and supervision of consultants in accordance with applicable policies and procedures. Among other things, the guidelines provide specific instructions for use of Bank documents (standard bidding documents, requests for proposals, contract forms); conflict of interest; advance contracting; co-financing; mis-procurement; and fraud and corruption.

24. OP 11.00 in the World Bank Operational Manual, available at <http://web.worldbank.org/WBSITE/EXTERNAL/PROJECTS/EXTPOLICIES/EXTOPMANUAL/0,,contentMDK:20064773~menuPK:4564185~pagePK:64709096~piPK:64709108~theSitePK:502184,00.html>

Role of Development Partners

At the end of FY14, CIWA was a program of US\$71.2 million co-funded by the UK, Denmark, Norway, the Netherlands, and Sweden. Exchange rate fluctuations reduced the pledged amount to US\$68.0 million at close of FY15. In FY15, CIWA worked closely with the EC to secure a strategic pledge for additional resources. In the context of the EU “Global Public Goods and Challenges” thematic programme and the 2015 Action Programme, the EC secured a contribution to CIWA with a budget of €5 million. This contribution will bring the total funding envelope to approximately US\$73.5 million. This is welcome as the business case argued for CIWA is to draw in new and additional financial resources to reduce individual partner burden share and also to expand overall program impact. The pledge from the EC reduces current partner burden share slightly – the UK’s burden share from 22% in FY14 to 21.8 %, the Netherlands’ from 35.3% to 34%, Sweden’s from 36.8% to 30.9%, Denmark’s from 4.7% to 4.6%, and maintains Norway’s at 1.2% . Alongside accelerating the pace of implementation, CIWA has maintained active fundraising; new development partners are considering supporting the CIWA MDTF in the near future.

Does the CIWA program still represent VfM?

Yes, there have been no significant changes in the approach and model of implementation set out in the business case and, coupled with the positive results at the end of FY15 – CIWA met its intended PDO targets and three CIWA influenced investments successfully mobilized financing; it maintained Program Management & Administration Costs and Enhanced Supervision Costs under 6%; it performed well in all three economy and effectiveness metrics in FY15 – the CIWA program demonstrated its commitment to the principles of economy, efficiency, and effectiveness and therefore strongly represents value for money.



The Cooperation in International Waters in Africa (CIWA) was established in 2011 and represents a partnership between the World Bank, its African partners and the governments of Denmark, Norway, Sweden, the Netherlands, and the United Kingdom. CIWA supports riparian governments in Sub-Saharan Africa to unlock the potential for sustainable and inclusive growth, climate resilience, and poverty reduction by addressing constraints to cooperative management and development of international waters.

WWW.WORLDBANK.ORG/AFRICA/CIWA



Ministry of Foreign Affairs of the
Netherlands



Norad



Sida