

## Annex B

### DESCRIPTION OF INVESTMENTS INFLUENCED

#### Potential Investments

##### **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 riparian states 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.

##### **Luapula Sub-Basin Investments**

Zambia and the Democratic Republic of Congo will jointly expedite the development of hydropower on five common sites of the Luapula River: a proposed investment worth about US\$1.9 billion. [1] An intergovernmental Memorandum of Understanding between the two Governments was signed on July 9, 2015, in Kinshasa, and an inter-utility Memorandum of Understanding was also signed between SNEL-SA, the Democratic Republic of Congo electricity company, and ZESCO LTD, its Zambian counterpart. However, the transboundary dimensions of this collaboration need to be determined. The two countries are in discussions to establish the Luapula River Authority (LRA) to manage shared water resources between the two countries. This process must be informed by legal and institutional frameworks before the actual development of the Luapula Hydropower Project sites. The outcome of this CIWA grant will help lay this legal and institutional foundation and, consequently, advance the investment opportunities for the development of the hydropower stations by developing a comprehensive river basin framework based on cooperative management and development. In doing so, increases in benefits provided to the basin population, due to cooperative management and the sharing of the benefits of water use, can be realized. In addition, the quality of investments will be improved through an emphasis on the sharing of benefits from water use (rather than the sharing of water itself), thereby directly benefitting an increased number of people in the basin.

##### **Nile Basin Investments**

CIWA supports the Nile Basin Initiative (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 Nile Cooperation for Results (NCORE) Project supports the NBI in the preparation of multi-sectoral, upstream, and cooperative regional

investments, estimated to cost a total of US\$7 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 2.7 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. Two multipurpose investments support the Kabuyanda and Nyimur projects which are now mobilized and included in the World Bank lending pipeline. The Rusumo hydroelectric project is under implementation, and the Regional Nile Basin Hydromet System has secured resources with the EU and is planned for implementation.

### Mobilized 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. The grant allows the Zambezi River Authority (ZRA) to commission new engineering studies and an ESIA for the proposed Batoka Gorge HES and other support that will help the ZRA prepare a bankable investment. The studies are revealing that the capital costs of the investment are projected to be US\$2.6 billion and the total investment is estimated at US\$4.6 billion. The projected number of potential beneficiaries of the planned energy production of the Batoka Gorge HES is 6 million. [2]

#### 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 the 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 1 million people through improved electricity services from 130 MW of installed hydropower capacity, and the development of 45,000 hectares of irrigated land. [3] 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 supporting analytical studies related to the dam's implementation.

#### Kariba Dam

Operated by the ZRA, the Kariba Dam provides more than 50 percent of Zambia's and Zimbabwe's electricity. Studies supported by CIWA provided a platform for riparian states 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 EU (US\$100 million), and the Government of Sweden (US\$20 million). An estimated 3 million people will benefit from reduced risk of dam break and avoided disaster and an estimated US\$8 billion in assets at risk.

### Lake Tanganyika

The governments of the Democratic Republic of Congo and Tanzania jointly approached the CIWA program for support in restoring port access in Lake Tanganyika. Study sponsored by COMESA in 2013 showed that re-building the Lukuga Barrage, an estimated US\$65 million investment, would improve port access. In response to the request from the countries, the CIWA program has supported an options analysis that helped the countries better understand that the constraints on lake water levels were primarily associated with drivers of increased sedimentation. The support identified solutions to overcome navigation challenges and has been used to initiate a US\$200million World Bank project (Lake Tanganyika Transport Program) that aims to facilitate the sustainable movement of goods and people to and across Lake Tanganyika while strengthening the institutional framework for navigation and maritime safety. A parallel environmental management project is under preparation in response to the findings of the CIWA supported study. It is a \$117.5m investment project whose objective is to contribute to the establishment of sustainable integrated watershed and fisheries management in the Lake Tanganyika Basin.

### Niger Basin Climate Resilience Investment Plan Project

With CIWA finance, the NBA countries developed a coherent approach to tackling climate change related challenges through the Niger Basin Climate Resilience Investment Plan (CRIP). The CRIP consists of carefully selected resilience-building investments from key existing regional and national planning documents. It totals 246 investments, amounting to an estimated US\$3.1 billion in financing needed. One project is under preparation for transboundary water resources management and increasing resilience to climate change and transboundary stressors in Niger valued at \$55m.

1 From Harza Engineering Company International L.P. 2001. Feasibility Study of the Development of Hydroelectric Power in the Luapula and Northern Areas of Zambia. Volume 1: Executive Summary.

2 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.

3 World Bank. 2012. Niger - First Part of the Second Phase of the Niger Basin Water Resources Development Program Project. Washington, DC: World Bank.