



Endowment Design

for the

Upper Tana-Nairobi Water Fund

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List of Abbreviations

CBO: community-based organization

CIAT: International Center for Tropical Agriculture

CTF: conservation trust fund

CTIS: Conservation Trust Fund Investment Survey

FFEM: French Fund for the Global Environment

FONAG: watershed conservation fund in Quito Ecuador

GEF: Global Environment Facility

IFAD: International Fund for Agricultural Development

KfW: German Development Bank

KENGEN: Kenya Electricity Generating Company

KRA: Kenya Revenue Authority

KWCA: Kenya Wildlife Conservancies Association

MAR Fund: MesoAmerican Reef Fund

NEMA: National Environmental Management Agency

NGO: non-governmental organization

PES: payments for ecosystem services

TNC: The Nature Conservancy

UNFCCC: United Nations Framework Convention on Climate Change

WASREB: Water Services Regulation Board

WRMA: Water Resource Management Agency

Executive Summary

This report prepared for The Nature Conservancy discusses and analyzes options for addressing the following five issues relating to the Upper Tana-Nairobi Water Fund (“the Water Fund”):¹

1. Size of the Water Fund, based on needs and yields
2. Location of the Water Fund
3. Modalities of capitalization and sources of capital
4. Options for Investment
5. Destination of grants (i.e., eligible types of activities, eligible grant, beneficiaries, and eligible implementing organizations).

The basic conclusions of this report on each of these five issues can be summarized as follows.

1. The **size of the endowment** should be at least US \$15 million, based on the following key assumptions:
 - a. The long-term average *gross* rate of return on the endowment will be approximately 6.7% measured in US dollars, and the average long-term *net* return (i.e., the amount of the endowment that can be spent each year) will be approximately 5%/year measured in US dollars, **if**:
 - i. no more than one third of the endowment capital is invested in Kenya (which might have a long-term average annual *gross* rate of return of around 12% measured in Kenyan Shillings) and two thirds in global financial markets, primarily in US dollar-denominated investments (which might have a long-term average annual *gross* rate of return of 6.7% measured in US dollars);
 - ii. an amount equal to the expected annual inflation rates is deducted from the gross annual investment earnings and reinvested back into the endowment’s capital each year), assuming an average long-term rate of inflation of 1% for US dollar-denominated offshore investments, and 5.3% for investments denominated in Kenyan Shillings;
 - iii. there is further rise in the US dollar and further relative depreciation in the value of the Kenya Shilling of 2% to 3%/year;
 - iv. annual fees paid to investment service providers (including investment consultants, managers and custodians) are deducted from gross annual investment earnings, and are estimated to be around 0.7%/year of the endowment’s capital (based on average fees paid by conservation trust funds in

¹ The analysis of these 5 topics represents Output 3 of Task 3 under the Terms of Reference, which is included as Annex 6 of this report.

other countries that have endowments of at least US \$10 million), and

- b. The investment income from the endowment will be annually matched at a ratio of at least 2:3 by private sector donations and international donor grants for short-term and medium-term term programmatic activities of the Water Fund; for example, if the Water Fund endowment raises \$15 million and this is invested to generate an average 5% net return measured in US dollars, then this would be equivalent to US \$750,000/year, which should be matched by at least \$500,000 in average annual contributions and grants from the private sector and from international donor organizations to support the Water Fund's annual program;
- c. The total annual budget of the Water Fund will be around US \$1.25 million, out of which \$1 million/year will be disbursed as grants for watershed conservation activities in the Upper Tana Basin, and \$250,000/year will be for the management and operating expenses of the Water Fund, which will have a staff of 5 people, an office in Nairobi, and 2 vehicles (one for field operations and one for the Nairobi office, whose maintenance and operating costs are included in this \$250,000 annual budget but whose purchase price is not included).²

However, if any of these percentages (for the average long-term rates of return, inflation rates, investment fees, and the amount of annual matching contributions and grants from donors that are intended to fund current activities) are changed even slightly, then this could have a major impact on the estimated minimum size (i.e., fundraising target) for the endowment.

For these reasons (i.e., in order to provide a buffer in case any of these assumptions need to be somewhat revised), and because a target of \$15 million for the endowment has already been publicly announced, it is recommended that **the original \$15 million target or minimum size for the endowment should continue to be used**. If this amount turns out to be an overestimation, then there are many opportunities for the Water Fund to use any annual investment income which is larger than expected for the purpose of expanding the scope of the Water Fund's grants to beyond just the six highest priority activities to reduce erosion and sedimentation that serve as the basis for the estimate in the *Business Case Study for the Upper Tana-Nairobi Water Fund (the "Business Case")* that \$1 million/year needs to be spent. For example, the Water Fund could co-finance collaborative activities with other partners such as the Water Resources Management Authority ("WRMA") and county governments if the average annual income generated by investing the endowment is larger than expected, or it could reduce

² In order to minimize costs, it is hoped that the Water Fund could dispense with hiring additional full-time staff to serve as drivers, cleaners or security guards, but that instead the Water Fund's staff can either drive the 2 vehicles themselves, or take taxis, and that cleaning and security can be provided by the building where the office is located.

funding for collaborative activities that are not among the 6 highest priority activities if the Fund's annual investment income is smaller than expected. In this way, increasing or reducing the Water Fund's grants for activities that go beyond the six highest priority activities could serve as a buffer for any large fluctuations in the investment returns or inflation rates.

2. The **location of the endowment** should be in Nairobi, in the sense that the endowment will be 100% owned by the Water Fund, which is registered as a Kenyan charitable trust. However, the investment managers (and the actual investments) that are selected for the endowment should be able to be located either in Kenya and/or offshore. However, the endowment should only be located in Kenya if the following 2 conditions can be met:
 - a. the Government of Kenya grants the Water Fund an **unconditional exemption from taxes** on the investment earnings of the endowment which are used exclusively to carry out the Water Fund's charitable not-for-profit activities for public benefit; and
 - b. there continue to be **no foreign exchange controls** in Kenya which might limit the free transferability and investment of funds offshore by Kenyan charitable organizations.

3. The Water Fund's **modalities and sources of capitalization** for the endowment should be based, firstly, on initial seed capital provided by TNC and the International Fund for Agricultural Development ("IFAD") will provide (in IFAD's case, as part of the Upper Tana Catchment Natural Resource Management Project; secondly, on raising donations from the private sector and large water users for the long-term capital of the endowment, as well as donations that are intended to be immediately spent on the Water Fund's annual programs; and thirdly, on seeking grants from bilateral aid agencies that have already supported large water-supply programs and projects in Kenya, which should include further discussions with the German Development Bank ("KfW"), possibly as part of a multi-country grant.

Other possible options would be to develop one or more sinking funds and/or revolving funds to complement the endowment as relatively long-term sustainable sources of finance for the Water Fund's activities. These would include approaching international donors whose rules or policies prevent them from contributing to endowments but are interested in supporting water-supply related projects (such as the EU, Sweden, Netherlands, etc.) to instead contribute to a sinking fund whose structure and could be negotiated with the water fund, and that could either be based on grants, or on some form of bilateral debt-for-environment swap.

Other options for obtaining in-country long-term funding for the Water Fund could include:

- a. aligning the activities financed by the Water Fund with what county governments in the Upper Tana River Basin plan to do, thus serving as an incentive for counties to contribute financially, especially in cases where the Water Fund delivers other pertinent services to the target communities; or
- b. working together with the WRMA to develop proposals for new water levies or fees on downstream water users (or new and higher fines for illegal water abstraction and for water pollution) which would be earmarked (i.e., ring-fenced) exclusively for the Water Fund.

Another option would be to try to access some of the \$100 billion in new funding for climate change adaptation in developing countries that developed countries recently announced that they would give at the UN Climate Change Convention meetings in Paris. Most of the activities that the Water Fund will support can also be considered as forms of adaptation to climate change (i.e., more severe droughts and flooding). However, it is not yet clear what particular modalities such new climate adaptation funding will take; whether such funding could be used to capitalize endowments or sinking funds; whether all official international climate adaptation funds for Kenya would need to go through NEMA, and if so, whether NEMA could be persuaded to allocate some of that to the Water Fund. In this case the NWF could make a strong case that it is contributing to climate resilient green economies.

4. Options for Investment of the Endowment

It is recommended that the portion of the Water Fund's endowment that has been contributed by international donors in US dollars or other hard currencies (which might be around two-thirds of the total capital) should be kept invested in US dollars (which has appreciated 7% over the past year against a basket of 16 major currencies, and seems likely to continue to rise as US interest rates go up) and in US and globally diversified investments, rather than being converted into Kenyan Shillings or invested heavily in Kenyan financial markets. On the other hand, the portion of the endowment's capital that has been contributed by Kenyan donors or by the Kenyan government (or local governments) could be kept in Shillings and invested in Kenyan financial markets, depending on whether the expected rates of return in Shillings are significantly higher than the expected rates of local inflation or currency depreciation.

Another investment approach that could be combined with what was just outlined above would be to invest most of the fixed-interest portion of the Water Fund's endowment in US dollar-denominated Kenyan government Treasury bonds, T-bills, and US dollar-denominated bonds and Certificates of Deposit issued by the largest and most internationally highly rated Kenyan banks. This would be a way of **hedging** against further depreciation of the Kenyan Shilling (which declined by around 20% against the US dollar in 2014-2015).

A draft Investment Policy for the endowment has been drafted to accompany this report. This draft Investment Policy proposes some specific allocations between different types of asset classes which are intended only to serve as a basis for discussion and decisions by the Water Fund's Management Board and its Investment Committee. It may take some time to reach consensus on the specifics of the Investment Policy, because the preferences or conditions of large donors to the endowment's capital will also need to be considered.

5. Destination of Grants

The types of **activities eligible for grants** from the Water Fund should be focused on the following six types of priority activities that were identified in the *Business Case* for the Water Fund and are the basis for its estimate that the program budget should be at least US \$1 million/year:

- Riparian management such as vegetation buffer zones along riverbanks
- Agroforestry adoption
- Terracing of hill slopes on steep and very steep farmland
- Reforestation for degraded lands on forest edges
- Grass strips in farmlands
- Road erosion mitigation.

Whatever site-specific activities are funded need to be carefully monitored and evaluated, in order to be able to demonstrate to donors that are downstream water users that they are "getting what they are paying for", which is the main way to ensure long-term financial sustainability.

Because of limited funding, this report recommends that the following types of activities should be **ineligible for grants** by the Water:

- Relief projects in direct response to specific incidents of natural disasters
- Projects for conventional large-scale urban management and conventional (non-nature based) infrastructure
- Projects to decontaminate or mitigate the impacts of toxic substances
- Activities that should be part of the regular costs of a private company's doing business, including the costs of environmental impact assessments
- Projects that are rightfully the responsibility of government for funding.

Because of the limited amount of funding available each year for grants, this report also recommends that **eligible beneficiaries** of Water Fund grants should be awarded mostly to community based organizations ("**CBOs**") and Kenyan non-governmental organizations ("**NGOs**") whose members consist primarily of small scale farmers in the Upper Tana Basin, but grants should not be given to individual farmers, national government agencies, or to the private sector (except for small community-based enterprises). Grants could also be given to local governments, but only for directly carrying out one or more of the six priority activities identified in the *Business Case*.

Early PES experiences reveal some positive equity impacts like improved tenure security, community empowerment, organizational and social capital development. Though formation of this trust may not inherently favor pro-poor outcomes, the trade-offs between environmental and social objectives can be managed with appropriate external support. Governments (and donors) have a vital role in promoting equitable governance, secure tenure, an enabling policy, legal and institutional framework, capacity building of local NGOs and CBO, collective institutions. This kind of arrangement would reduce ecosystem services' buyers' risks and transaction costs, and would facilitate broad participation, thereby helping to ensure sustainability.

In addition to the CBOs and NGOs that are eligible to be the ultimate beneficiaries of grants, **eligible implementing organizations** should also include larger Kenyan NGOs and scientific or academic institutions (whether they are private or governmental) that can provide capacity building, training, technical assistance and administrative assistance to grant beneficiaries, in order to better enable potential and actual grant beneficiaries to apply for, design, implement and report on grants from the Water Fund. Eligible implementing organizations should be paid out of the grants made to the ultimate beneficiaries but should also contribute partial co-financing for their own (i.e., the implanting organization's) activities, and for this reason eligible implementing organizations would be unlikely to include for-profit consulting firms.

Section 1: Introduction

The difference between the Trust and the Endowment

The Upper Tana-Nairobi Water Fund is being created in the legal form of a trust. A **trust** is an independent legal entity (also referred to as a “legal person”) that holds and manages assets for the benefit of others, including for educational, scientific, religious, social, or other charitable purposes. In Kenya, a Trust is created by Trustees registering a Trust Deed, as provided in the Trustee Act. A **trust fund** refers to the money that is owned by a Trust.

An **endowment** means the portion of the money raised by the Trust (or by other types of charitable organizations) that is kept separate from the organization’s current operating budget and grants budgets, and also separate from any sinking funds or revolving funds, and that is invested over the very long-term (“in perpetuity”) in order to earn a relatively steady and predictable stream of income year after year. Normally only the income that is earned by investing the capital of an endowment is spent, but no part of the capital is ever spent (except in rare cases, and then usually has to be quickly restored). The “**capital**” is similar to the “principal” of an interest-bearing account, and refers to the total amount of money that is given by donors with the requirement is to be kept separately from the Trust’s other assets and to be invested in order to earn a long-term stream of income (theoretically “in perpetuity”, but in practice this can mean that the capital must be kept intact and invested for at least 50 years).

As stated in Section 2.1 of the Water Fund’s Trust Deed, “The purpose of the Trust is to develop and administer the Endowment Fund and any other funding sources...solely to support the long-term conservation, protection and maintenance of the Upper-Tana watershed and, thereby, improve Nairobi’s water security and the function of hydropower facilities on the Tana River (the “Charitable Purposes”).”

In other words, the Trust (i.e., the Trustees of the Water Fund) legally own and manage the endowment *plus* all of the other contributions and revenues received by the Water Fund but which are not intended to be invested as long term capital.

As described in detail in the Water Fund’s Trust Deed, the Trustees have delegated to the Management Board the powers of investing the endowment and of spending the investment income and the other revenues received by the Trust. The Trustees have kept powers to act only in some specific circumstances, such as to amend the Trust Deed or to remove a Management Board member.

In addition to creating an endowment, the other two most common mechanisms that conservation trust funds have used in order to sustainably finance their

activities over the longer term (as opposed to projects which are financed for just a few years) are a “sinking fund” and a “revolving fund”.

A **sinking fund** is established when donors give a sum of money to a trust to spend over a longer period of time than a typical 2- to 5-year project, and which the trust invests in the meantime (usually for a period of 10 to 20 years, which needs to be specified in the agreement between the donor and the trust) in order for the trust to earn investment income until the trust needs to spend part of the capital as well as the investment income. This generally involves annually spending a set percentage of the sinking fund’s capital (plus investment income) until the value of the capital finally “sinks” to zero at the end of the 10 or 20 years.

A **revolving fund** refers to a continuing and regular in-flow of new revenue, which often comes from a specifically earmarked fee, levy or tax, or is based on a donor’s promise to make periodic regular contributions over a long period of years (which can sometimes also be described as payments for ecosystem services (**PES**)).

Many conservation trust funds simultaneously rely on some combination of an endowment, sinking fund, and revolving fund, which each have their own spending rules. In addition to these three longer-term financing mechanisms, conservation trust funds also rely on donations and grants that can (or must) be spent in a shorter period of time.

Section 2: Size of the Water Fund, based on needs and yields

The **size** (i.e., the amount of capital) that is required (or that is targeted as the fundraising goal) for an endowment generally depends on a combination of the following three factors:

1. **the amount of money that is needed each year** in order for the trust to carry out its purposes, which in turn will be a combination of the trust’s **program budget** (i.e., the budget for grants), and the trust’s **operating budget** (i.e., the management and overhead costs);
2. **the expected average annual long-term rate of return** from investing the endowment’s capital, minus an annual **offset for inflation** (which means annually reinvesting a part of the investment income back into the endowment’s capital, rather than spending all of the annual investment income, in order to maintain

the same “real” value of the endowment’s capital over the long term), in terms of purchasing power;³ and

3. **the amount of revenue that the trust is expected to receive from other sources** (such as grants for limited-term projects, sinking funds or revolving funds) to support the activities that constitute the trust’s core program or core purpose(s).

The **Business Case** for the Upper Tana Nairobi Water Fund states in eight different places that the amount of money that will be required to carry out essential watershed conservation activities in the three main sub-catchments of the Upper Tana River --- i.e., **the core program budget** --- is approximately **US \$1 million/year**. Therefore this is the amount that was used as one of the factors for calculating the size of the endowment capital that the Water Fund needs to raise. The amount of capital needs to be large enough to generate an average of \$1 million/year for making grants to carry out watershed conservation activities, and to also generate an additional amount that will be enough to cover the Water Fund’s own annual management and operational expenses. However, the minimum size of the endowment capital that is required can be reduced by whatever long-term amounts the Water Fund expects be able to raise from other sources besides the endowment’s investment income.

Annex 1 to this report presents a somewhat detailed basis for estimating that the **average annual operating costs** (i.e., the management and overhead costs) of the Water Fund are likely to be around US **\$250,000/year**. This is an initial estimate, and it falls just barely within the 15% to 20% maximum level of management and overhead costs that many international donors (such as the GEF, USAID and KfW) usually require as a condition for donating to a conservation trust fund, although donors will often agree that such costs can be higher during an initial 2- to 3-year start-up phase (when a trust fund needs to buy vehicles, equipment, computer software, train its staff, etc.).

By adding together the amounts that were just cited in the last two paragraphs, it is estimated that the **average total annual budget** that the Water Fund will need to spend in order to effectively and efficiently carry out its mission will be approximately **\$1.25 million**.

The second factor for calculating the size that the Water Fund’s endowment needs to have is the expected average long-term rate of return from investing the endowment. a relatively detailed analysis and discussion of this topic has been placed in **Annex 2**. The bottom line from that discussion and analysis is that the

³ Some conservation trust funds decide to reinvest an amount of their annual investment income which is even higher than the amount required to offset for inflation, in order to “grow” the size of the capital (and therefore to serve as the basis for higher income in future years); or else may decide to reinvest an additional amount of the annual investment income as a “reserve fund” subaccount, that can be spent in case of emergencies or unexpected shortfalls in revenues.

average gross annual long-term rate of return (measured in US dollars) from investing the endowment can be conservatively expected and targeted to be around **6.7%**. However, in order to calculate the average *net* rate of return, it is necessary to deduct **investment management costs** equal to around **0.7%/year** of the endowment capital,⁴ and to also deduct at least **1.0%/year to offset for long-term inflation**.⁵ This means that the **average net long-term rate of return** (i.e., the average amount of the endowment's investment income that would actually be available for the Water Fund to spend each year) would be around **5%/year** of the value of the endowment's capital. This figure also corresponds to the 5%/year **spending policy** (sometimes also called a "spending rule") that is used by many US-based charitable endowments for determining how much the charity should spend each year in relation to the size of its endowment, and could therefore be a relevant factor for the Management Board to consider when it is determining the spending policy for the US-dollar portion of the endowment's capital. A different spending policy could be used for determining what percent of the portion of the endowment's capital that is invested in Kenyan shillings should be spent each year, which might be higher, but it should take into account (in

⁴ According to the 2014 Conservation Trust Investment Survey (CTIS) published by the Conservation Finance, "For those CTFs [i.e., conservation trust funds] using professional advisors, the typical fees average 0.2% for domestically-invested [i.e., local currency] funds, and 0.66% for US-based advisors and 0.74% for European-based advisors. Notably, the US and European-based advisors were more likely to be investment management consultants or financial advisors, where a higher fee might be expected. It is also worth noting that CTFs invested domestically tended to be invested primarily in domestic fixed income and tended to be less likely to report any fees related to the portfolio." The US Labor Department just published guidelines which set a cap on the investment management fees for non-employer provided private sector retirement plans (commonly known in the US as "IRAs") of 0.75% of the money invested. According to an article in the November 23, 2015 *New York Times*, "That [0.75%] is not cheap, but it is intended as an upper limit, not the typical cost." It therefore seems as though the fees of 1% to 2.5% that some investment managers in Kenya mentioned in interviews conducted for this report are probably much too high, especially for investments in fixed income (i.e., bonds, T-bills, and bank CDs). Once the amount of the endowment that is being invested exceeds a minimum amount US \$10 million, the total amount of investment-related fees paid by the Water Fund to investment managers and investment consultants (including custodian fees and all other types of fees) should not exceed 0.7%. If it is not possible to find this level of fees being offered by Kenyan financial institutions, then it would seem preferable to hire overseas investment managers or consultants who can offer this amount or less. Although "hedge funds" in the US and UK typically charge an additional fees of as much as 20% of the amount by which their returns beat stock market averages or other agreed performance benchmarks, during the last two years hedge funds have actually underperformed stock market index funds (which usually only charge total fees of 0.1% to 0.3% to their retail investor clients).

⁵ This estimate is on the low side, and might need to be increased in the future) in order to maintain the same "real" long-term value of the capital. Inflation rates in large developed and developing countries were as follows for the 12-month period from February 2014 to February 2015: US 0%, Euro area -0.3%, China 1.4%, Japan 2.2%, India 6.3%, Brazil 7.7%. However, these inflation rates are atypical, and reflect recession, falling global commodity prices, and attempts by central banks in developed countries to stimulate economic activity by forcing down interbank loan borrowing rates to less than 1%. Over the past decade, inflation rates in developed countries have generally been closer to 2%/year.

other words, should be reduced by) the higher expected rate of inflation in Kenyan shillings that is predicted over the next 5 years.

Although the average annual gross long-term rate of return from **investing part of the endowment in Kenya** might be higher than 6.7% (perhaps even as high as an average of 12%/year in Kenyan Shillings),⁶ this is likely to be counterbalanced by a higher rate of inflation in Kenya, as well as by the risk of further loss of value of Kenyan currency in relation to the US dollar.⁷

The relative percentage of the endowment that is invested offshore versus invested in Kenya (and the relative percentage of the endowment invested in fixed rate investments such as bonds and bank time deposits versus the percentage invested in stocks and other variable-rate alternatives) may depend on:

- changing national global financial conditions
- particular investment strategies that are chosen
- donors' preferences or conditions about how their grants to the endowment can be invested; and
- domestic political and public relations factors that might favor investing more of the endowment capital in Kenya.
- Other regional drivers that impact on economic decisions e.g. eruption of conflict or extreme events in the vicinity in areas of interest.

Based on estimating that the Water Fund will require an average annual budget of US \$1,250,000/year, and that the endowment will earn an average gross rate of return (measured in US dollars) of 6.7%/year and spend an average of 5% of its capital each year, **the size of the endowment capital would need to be \$25,000,000, *if* 100% of the Water Fund's annual budget is expected to come from investing the endowment.**

However, no conservation trust funds or water funds (including the water funds that TNC has helped to design in Latin America) **depend entirely on** the earnings from their **endowments**. For example, the highly successful water fund that was established with TNC's help in Quito Ecuador (called "FONAG")

⁶ This is discussed in greater detail in the second part of Annex 3 to this report.

⁷ The Kenyan Shilling has lost around 20% in value relative to the US dollar over the 18 months ending on December 31, 2015, although it was previously quite stable for a number of years. The Central Bank of Kenya is trying very hard to keep the Shilling stable, but there may be factors that are beyond its control. For example, in 2015 the US dollar appreciated by approximately 7% when measured against a 'basket' of 16 other global 'hard' currencies, and many analysts expect it to appreciate even further if the US Federal Reserve Bank begins a series of gradual interest rate increases, and/or if global political instability increases, since the US dollar is viewed by many people as a relatively 'safe haven'. Most African countries' currencies have also been affected by the fall in prices of almost all types of export commodities, although this has also lowered the cost of oil for net oil importing countries.

receives approximately three times as much of its annual budget from grants and donations as it does from the investment income of its endowment.

Unless and until the endowment reaches the equivalent of US \$25 million, **the Water Fund will *always* need to continue doing fundraising** in order to be able to accomplish its basic mission of watershed conservation.⁸ The Water Fund should continue to seek additional contributions to its capital, and it should also continue to raise grants and donations for shorter-term projects and activities. In addition, the Water Fund could also try to establish one or more sinking funds (e.g., based on contributions from international donors whose rules do not permit them to contribute to endowments, such as the EU, Japan, and the Scandinavian countries), and could also try to establish revolving funds that are based either on voluntary commitments to continue making contributions over an extended of years (which could be in the form of *voluntary* “payments for ecosystem services” (**PES**) by large water users, or in the form of *mandatory* user fees, levies or taxes that are earmarked to go to the Water Fund (which would require new legislation or new regulations).

Such fundraising efforts (continuing year after year, rather than stopping when a particular target amount of money is raised) should be one of the main duties listed in the terms of reference for the Water Fund’s Chief Executive Officer and for members of the Management Board. This is what is done in the case of most conservation trust funds, and increasingly, of most charitable organizations. Although charitable organizations often launch fundraising campaigns that have specific dates for reaching specific targets, they almost always continue to launch new campaigns afterwards (although the themes or purposes of the new fundraising campaigns may vary). Only “private foundations” (as they are called in the US) whose endowments are generally based on entirely on large donations from a single individual or family) do not try to continually keep raising additional funds, but even many very large private foundations (such as the multi-billion dollar Gates Foundation or the MacArthur Foundation) try to “leverage” the impact of the grants that they do make, by finding other donors (or requiring their grantees to find other donors) to co-finance particular projects and activities.

Although some large conservation trust funds have hired one or more full time fundraisers (either as staff or as outside consultants), the most effective type of fundraising (and the most cost-efficient fundraisers in cases where a conservation trust fund has less than US \$50 million in assets) is for the CEO and Board members of the conservation trust fund to devote a significant amount of their own time to fundraising. One of the main criteria for selecting the Water

⁸ Even if the Water Fund is fortunate enough to succeed in raising \$24 million or more for the endowment, it should still try to do further fundraising in order to be able to increase the number of grants that it can make in the Upper Tana watershed and thereby further reduce sedimentation and improve water quality and quantity. Spending \$1 million/year on grants is merely the minimum that needs to be done in order to have a significant impact on the problems that the Water Fund has been created to address.

Fund's Management Board members and its CEO should be whether they have a proven history of fundraising ability and useful contacts for fundraising, and their willingness to commit to spend significant amounts of time on fundraising.

Since the Water Fund's brochures and its press conferences have already repeatedly publicly announced the figure of **US \$15 million as the fundraising goal** for the capital of the endowment, it therefore seems useful (and also not unrealistic) to stick with this figure, while realizing that a \$15 million endowment will probably only be able (by itself) to generate part of the Water Fund's estimated minimum annual budget of \$1.25 million.

Although a few national scale conservation trust funds in Africa have been able to raise much larger amounts of capital for their endowments (such as the Madagascar Biodiversity Fund's endowment of more than US \$60 million, or the Mozambique BioFund, which was launched in 2015 with an initial endowment of \$20 million but has a target of raising \$100 million), these are funds which are intended to finance the entire national park systems of geographically large countries. By contrast, none of the conservation trust funds that have been established in Africa in order to sustainably finance just one particular protected area and its buffer zones has been able to raise more than US \$15 million as endowment capital. Some funds such as the Mulanje Mountain Conservation Trust in Malawi or the Bwindi-Mgahinga Impenetrable Forest Conservation Trust in Uganda have total assets (as reflected in their annual financial statements) of around \$12 million after having been operating for more than 15 years, but in both of those cases only slightly more than half of this represents endowment capital, and the rest is sinking funds or multi-year project grants.

It seems **more realistic to set a goal of raising US \$15,000,000** for the endowment capital, which (applying a 5% spending rule) should generate a net average annual amount of US \$750,000, and try to **close the annual funding gap by raising at least US \$500,000 each year from new donations and grants by international donor agencies, the private sector and government sources**, in order to reach the required annual budget of \$1,250,000.

An alternative (or a supplemental) way of raising part of the Water Fund's annual budget would be to try to establish (i.e., to require downstream water users to pay an **additional fee of 1% to 2% on top of regular water use charges**, and earmark this to go into the Water Fund. This is how Most of the water funds that TNC has helped to design in Latin America receive most of their annual budget from mandatory **additional fees of 1% to 2% on top of regular water use charges** (and/or fees on consumption of hydroelectric power, at least above certain minimum use or minimum income thresholds. As already mentioned, Ecuador's FONAG receives three times as much of its budget from such fees as it does from the income earned by investing its endowment, and this is similarly true in the case of water funds in other Latin American countries such Brazil, Costa Rica and Colombia.

This is also similar to the way that most conservation trust funds work. Rather than rely on their endowment income to finance the entire annual operating cost of a country's protected area system or of an individual protected area, most conservation trust funds provide only one important component of the financing for a park or park system. For example, the Mexican Nature Conservation Fund, which has assets of around \$200 million, finances only 14% of the total cost of Mexico's national parks. In Peru, whose national conservation fund PROFONANPE also has assets of around \$200 million, finances around 75% of the costs of the national park system, but a large proportion of this \$200 million in Peru's case comes not from an endowment but from Debt-for-Nature swaps, which are essentially sinking funds that will only pay out for periods of 15 to 20 years and then stop.⁹ Even the investment earnings of US university endowments which are sometimes worth tens of billions of dollars generally pay for only 10% to 20% of a university's annual budget, and a larger proportion comes from tuition payments (which could be regarded as a kind of fee-based revolving fund), government grants and contracts, licensing arrangements and royalties, and individual donations which are not earmarked for the endowment.

The *Business Case* already analyzes and presents most of the technical and financial information that would be required in order to make a strong argument for collecting a small watershed conservation fee on top of users' regular water bills or electricity bills. Further work by an economist would be needed in order to calculate the exact percentage that such a fee or levy would need to be (and who would be required to pay it, with possibly different rates for different types of water users). The main challenges in trying to legally establish and then collect such a watershed conservation fee or levy are likely to be **political**: overcoming the resistance of downstream users to having to pay more for water or electricity (even if it only means an increase of 1% or 2%); and ensuring that the money paid for this extra fee would only go into the Water Fund (rather than being diverted by government for other purposes, especially in times of economic crisis). In fact, one of the reasons for designing the Upper Tana-Nairobi Water Fund as a private sector legal entity, with an independent Management Board that comes mostly from the private sector, is because of concerns about a lack of transparency in cases of some other water-related fees and funds in Kenya.¹⁰

⁹ Spergel and Taieb, [Rapid Review of Conservation Trust Funds](http://conservationfinance.org/upload/library/arquivo20100514173044.pdf), Conservation Finance Alliance, 2008. <http://conservationfinance.org/upload/library/arquivo20100514173044.pdf> at p.35

¹⁰ It may also be very politically difficult to introduce a new water levy at this time because on December 8, 2015 the Water Services Regulatory Board (Wasreb) introduced an additional **new 5% levy on all water bills** to pay for sewerage network development. According to the December 8 2015 *Daily Nation*: "Currently, water bills contain a sewer charge, but the fee has been abused by water firms. Wasreb said the charge had over the years been used to improve and maintain the water connection infrastructure and meet operation costs, leaving little for sewer development and upgrades." The *Daily Nation* article also stated: "A fresh rise in the cost of living is projected given that a number of water companies are reviewing their tariffs upwards to cover for the high cost of electricity, water treatment chemicals, pipes, fuel, lubricants and fittings."

TNC staff who have actually designed, lobbied for and helped to manage municipal water funds in Latin America may be able to give further advice about ways of overcoming some of these political challenges to introducing new watershed conservation fees, since many of those Latin American water funds also operate in political contexts that are characterized by a lack of transparency and widespread poverty, yet despite such challenges they have nevertheless developed ways to succeed.¹¹

Section 3: Location of the Water Fund

The Water Fund was legally established as a Kenyan Charitable Trust on October 26, 2015, when the Trust Deed was fully executed by the three Founder Trustees (The Nature Conservancy, the Nairobi Water and Sewerage Company, and Pentair).

One reason why conservation trust funds have sometimes been legally established offshore (e.g., in the UK, Germany or the US) rather than in the country for whose benefit the trust fund is being established is because certain countries (e.g., in West and Central Africa,¹² and in some of the republics of the former Soviet Union) were considered to lack what the GEF's 1999 *Evaluation of Experience with Conservation Trust Funds* identified as one of the four essential conditions for establishing a conservation trust fund: "a basic fabric of legal and financial practices and supporting institutions (including banking, auditing and contracting) in which people have confidence." By contrast, Kenya has a very well developed legal and financial system, so this would not be a reason to consider legally establishing the Water Fund outside of Kenya.

In the case of Cote d'Ivoire, it was decided to legally register a national parks trust fund under local law and then to additionally establish an offshore legal entity in the UK¹³ that legally owns and invests the endowment and then transfers

¹¹ Unfortunately I exchanged several short emails but never succeeded in speaking with the TNC lawyer who works on water funds in Latin America, and Fred Kihara also emailed TNC Latin American staff to try to arrange a conference call to discuss endowments for water funds, but never received responses. I still hope there will still be opportunities to learn more details. Almost everything written in this report about water funds in Latin America is based on published sources available on the Internet.

¹² E.g. Mauritania, Central African Republic, Guinea Bissau.

¹³ The reason why quite a number of offshore conservation trust funds have been established as UK charities is because UK law does not require a UK charity to have any permanent office in the UK or to hold any of its board meetings in the UK, or to have any UK citizens on its board, and a UK charity is exempt from paying UK taxes on its investment income. However, if a charity is

the investment income to the Cote d'Ivoire foundation that decides how to spend the money. The reason for creating two separate entities, one offshore and one onshore, was because of Cote d'Ivoire's strict foreign exchange controls (which make it very difficult for an Ivorian legal entity to transfer and hold funds outside of the countries that use the West African Franc), and the fact that its laws do not give any exemption from paying taxes on the interest and investment income of charitable organizations.

Kenya has a well established and effectively functioning system of laws for independent charitable organizations (including, but not limited to, charitable trusts), both under the old English common law on trusts (which is something that none of the French and Portuguese-speaking African countries have), and Kenya also has the new Public Benefits Organisations Act of 2013. Kenya does not restrict the holding of foreign currency by Kenyan citizens or Kenyan legal entities, and Kenya also has no restrictions on the transfer or investment of funds overseas. Under Kenyan law and tax regulations, the taxability of investment income depends on the tax status of the organization that receives the income, and tax-exempt Kenyan charitable organizations are not taxed on any of their income (including interest and investment income) if the money is used exclusively for supporting charitable purposes.¹⁴ This contrasts with the situation in many countries whose legal system is not based on English common law, where the income earned that charitable organizations earn from investing in for-profit companies (through buying stocks or bonds) and the interest that they earn from bank deposits may be subject to tax, even if they are tax-exempt in other ways.

However, **if the Kenya Government fails to grant an unconditional tax exemption** to the Water Fund, **then** despite the fact that Kenya has no foreign exchange controls, it might make sense to **set up a separate offshore legal entity** (i.e., a legally independent non-profit charitable trust or foundation) in the US or the UK which would hold and manage the Water Fund's endowment. This independent offshore trust or foundation would legally "own" the endowment's capital, and **would invest 100% of the endowment offshore**, in order to not have to pay taxes of 25% or more on the endowment's investment income. Each year this offshore trust or foundation would transfer the endowment's investment income as a tax-exempt grant to the Kenya-registered Water Fund. However, this would require having two separate boards of directors or trustees, separate bank accounts, separate annual audits, and certain other additional administrative costs, although these costs would still probably be significantly less than the Kenyan taxes on investment income that the Kenya-registered Water Fund might

legally established in the UK, it has to file an annual independent audit with UK authorities, and UK courts can intervene if asked to do so.

¹⁴ This is based on Section 10 of the First Schedule of the Income Tax Act. **Annex 3** of this report contains a more detailed discussion of some of the practical aspects of obtaining a tax exemption for a newly established charitable organization in Kenya.

otherwise have to pay if it is not granted an unconditional tax exemption by the Kenyan government.

There have also sometimes been political reasons why certain conservation trust funds have been legally established offshore, but these reasons do not apply in the case of Kenya. For example, the 3-country Caucasus Nature Fund (which supports national parks in Georgia, Armenia and Azerbaijan) was legally established as a German charitable foundation because two of the three participating countries are still officially in a state of war. To take another example, one of the reasons for legally establishing conservation trust funds for certain West African countries in an offshore location such as the UK was because of very recent civil wars and military takeovers in some of these countries (such as Guinea Bissau, Central African Republic, Cote d'Ivoire), and because of the consequent wish by international donors to ensure that the money which they have donated for a long-term conservation endowment will be protected in case of a repetition of such events. In another case (i.e., the Caribbean Biodiversity Fund that was established with technical and financial support from TNC), the fund was legally registered in the UK (although its head office is located in the Bahamas) not for any legal or tax reasons, but simply because the eight small Caribbean island countries for whose parks this US \$42 million endowment was created had some concerns about possible "favoritism" or undue political influence if this regional conservation fund were legally registered under the laws of any particular one of the eight participating Caribbean countries.

There is only one case in which a regional conservation trust fund (for four countries in Central America) was legally established in the US for US tax reasons. When the Meso-American Reef Fund (the "MAR Fund", which supports conservation of coral reefs along the Caribbean coasts of Mexico, Belize, Guatemala and Honduras) was first established, its original donors included several US private family foundations, which are subject to special rules under the US tax code, including a requirement that they must give away at least 5% of their assets each year to US tax-exempt public (i.e., membership-based) charitable organizations. The MAR Fund was legally established under US law mainly in order to make it easier for particular US private family foundations to comply with US tax law. Another reason for legally establishing the MAR Fund in the US may have been similar to the reason cited in the previous paragraph about the Caribbean Biodiversity Fund, i.e. because none of the four Central American countries wanted to see the new regional fund be legally registered under the laws of one of the other three countries, even though they did not object to the MAR Fund's headquarters and staff being located in a particular one of the four countries (i.e., Guatemala).

None of the above examples presents a good reason for legally establishing the Water Fund under the laws of a country other than Kenya. There also does not seem to be any good reasons (from a US tax law perspective) to establish a separate new "Friends of the Nairobi Water Fund" tax-exempt charitable

organization under US law, similar to what has been done in the case of US charitable organizations that support non-US institutions (such as the “American Friends of the Louvre Museum in France”) simply in order to enable individual US donors to claim a US income tax deduction for their donations to a foreign organization. This is because US individuals and US private foundations who want to donate to the Water Fund and receive a US tax deduction can simply make a donation to TNC with a stipulation that the donation should be earmarked for the Upper Tana-Nairobi Water Fund, since TNC is a tax-exempt public charity under Section 501(c)(3) of the US federal Income Tax Code.

The location where a trust fund is legally established is to be distinguished from the location where the trust’s endowment or other financial assets are managed or invested. A charitable trust that is established and registered under Kenyan law can decide to hire one or more investment advisors, consultants or managers who are physically located in Nairobi, New York, London, Switzerland or Singapore or in a combination of different places, as long as none of these places impose restrictions on the free transfer of funds across their borders (other than to prevent money laundering and terrorism) or impose any withholding taxes on the interest and investment earnings of non-resident charitable organizations. In each country listed above there are different rules and procedures by which foreign charities can qualify for exemption from withholding taxes (which would otherwise have to be paid by individuals and for-profit corporations, and could be as high as 30% of the earnings).

A number of African conservation trust funds that were legally incorporated under their own national laws nevertheless have chosen to hire offshore investment advisors, consultants or managers for their hard currency endowments. These include Uganda’s Bwindi Mgahinga Impenetrable Forest Conservation Trust, Tanzania’s Eastern Arc Mountains Conservation Trust, Malawi’s Mulanje Mountain Conservation Trust, and the Madagascar Biodiversity Foundation (which was established under Madagascar’s Charitable Foundation Law and has a \$60 million endowment). All these African biodiversity conservation endowments were almost entirely capitalized by contributions from international donor agencies and international conservation NGOs, who required that their donations be kept invested in hard currencies and be managed by internationally recognized banks or investment firms. In contrast to Kenya, none of the four African countries just listed have very large or sophisticated financial markets, or had endowments that included significant local currency, so in their cases it made sense to hire offshore investment advisors, consultants or managers for their hard currency endowments.

This contrasts with the cases of several conservation trust funds that were established in large Latin American countries with very large economies and sophisticated financial systems, such as Brazil (which has some of the largest banks in the world), Mexico, Peru and Colombia. Those countries’ conservation trust funds hired local banks and investment firms to manage part of their

endowments (which in the case of Peru’s fund “PROFONANPE” included large amounts of local currency that was generated by Debt-for-Nature Swaps, and in the case of Brazil’s FUNBIO included more than the local currency equivalent of US \$5 million contributed by private sector Brazilian companies).

In none of the four African funds or four Latin American funds just listed was there any need to establish a separate new US tax-exempt organization in order for the profits, dividends and interest from their investments in the US to be exempt from US taxes. Instead, each of these conservation trust funds obtained a US legal determination that they were “equivalent” to a tax-exempt US charitable organization.¹⁵

The decisions by many African and Latin American conservation trust funds to hire American, UK or Swiss-based investment managers or investment management consultants (who then select a number of different stock and bond fund managers with whom to invest a part of the conservation fund’s endowment) has not been based on legal or tax reasons, but have been based on decisions by the management boards of these funds that particular US or European investment managers or consultants were able to offer greater international investment expertise and diversification, at lower charges, than local investment management firms.

In a number of cases, conservation trust funds (such as Brazil’s FUNBIO) have chosen local (i.e., national) investment managers (including banks and insurance companies) to invest the local currency portion their endowments, and then chosen offshore investment managers to invest the hard currency portions of their endowments. However, this has been based on comparative advantages in price and in quality of services being offered by specific firms, rather than being based on any general legal or tax considerations.

Sometimes international donor preferences have also played a role. Many international donor agencies (such as the World Bank, USAID, KfW and AFD) require in their grant agreements with conservation trust funds that the donor must have the right to approve or disapprove of the particular investment manager(s) which are chosen by the management boards of the conservation fund that receives their donations. In other cases, the objective criteria that a conservation fund uses for rating and selecting an investment manager or investment consultant may tend to favor larger international firms or banks. Such criteria can include the total amount of the assets of other non-profit

¹⁵ If a non-US charitable organization invests in the United States and earns US source investment income, a 30 percent withholding tax may be imposed at source unless an exemption applies under the US Internal Revenue Code or a tax treaty. Even though the non-US charity may be tax exempt under the domestic law of the jurisdiction in which it was formed, any US-source income paid to the charity may still be subject to US tax unless the charity obtains US tax-exempt status by applying to the US Internal Revenue Service or by obtaining a legal opinion from US legal counsel.

organizations' endowments that an investment firm or bank is currently managing; the number and qualifications of a firm's staff who specialize in different investment categories (such as Asian stocks and bonds, global commercial real estate, commodities, "green" investments, etc.); the average longer term rates of return that firms have achieved on different asset classes; and the amount of a firm's investment management fees (as a percentage of the capital that is being invested). On the other hand, some large international financial institutions may not be even interested in bidding on a contract to manage the investments of an endowment that is worth less than US \$20 million.

In the case of selecting an investment manager(s) for the Upper Tana-Nairobi Water Fund, the Management Board (or the Trustees) could decide, for example, to split the investment management responsibilities between a Kenyan firm to manage Kenya-based investments (or investments of donations that are made in Kenyan Shillings), and an offshore investment firm or financial institution to manage offshore or hard currency investments. However this should depend on considerations such as an investment manager's fees, experience, expertise, and past performance with investing for other similar clients (e.g., that have similar risk and return preferences, etc.). It would probably be best for the Management Board (and the Investment Committee that is established to advise the Management Board) to make such decisions based on comparing specific proposals from specific firms or banks, rather than trying to choose the location(s) of the investment manager(s) in advance.

Another option which has been explored by some conservation trust funds is to hire the same investment manager or investment consultant used by another conservation trust fund in order to "pool" the investment of the international (i.e., hard currency) portion of their endowments, while keeping the legal ownership of the endowments' capital separate, in order to obtain lower investment fees (which usually decrease in percentage terms as the amount of capital that is being invested increases), and perhaps also obtain better service or more diversification of investments. However, this means that the conservation trust funds whose investments are pooled would have to agree on having the same investment policies and guidelines.

Since TNC has been a donor to the endowments of more than 20 different conservation funds (including water funds) in Latin America, and since TNC itself has an endowment of more than US \$1 billion and employs many in-house financial and investment specialists, TNC's own experiences and expertise may offer some additional resources and "lessons learned" for selecting investment managers or consultants. Annex 1 to the draft Investment Policy for the Upper Tana-Nairobi Water Fund provides one example of a Request for Proposal by investment managers or consultants.

Section 4: Modalities of capitalization and sources of capital

TNC has already been more successful in mobilizing key local stakeholders to make commitments to voluntarily contribute to the Water Fund than many water funds in Latin America, which have often tended to rely to a greater extent on the extra fees for watershed conservation that are collected by municipal governments or municipal water companies or hydroelectric power companies.

However, although many private sector companies have agreed to contribute to the Upper Tana-Nairobi Water Fund to support projects and operations in the short- to medium term (up to 5 years), it is not yet clear whether any other donors besides TNC and IFAD (which will contribute USD 1M catalytic funds for the endowment over the first two years) have made commitments to contribute specifically to the Water Fund's endowment. According to the Minutes of the Water Fund Steering Committee Meeting that was held on October 1, 2015,

“Donors will give contribution for mixed purposes. [For] Example, we estimate that 60% of the Steering partners' contribution of USD 10m will be cash and 40% in kind. Of the USD 6m in cash, 50% of the contribution may be used for endowment, making the USD 3m catalytic seed capital we hope to raise for the kitty.”

This remains to be discussed further with interested private sector donors. Perhaps they will be more interested in making contributions specifically to the endowment after they learn more about it from reading this report and the accompanying draft Operations Manual and Investment Policy.

In terms of possible government contributions to the Water Fund, the Kenyan lawyer Sheldon Begisen said that it would be better to approach local county governments for donations to the Water Fund rather than to ask the national government, because the benefits of the Water Fund will accrue more directly to the county governments and county residents, rather than to the whole country. The Water Fund Steering Committee has also noted that County government support is increasingly important to upstream activities, as agriculture has become a County government responsibility under the 2010 Kenyan Constitution. However, it not clear whether the governments of the three counties that constitute the Upper Tana watershed currently have the willingness and the means to contribute significant amounts to the Water Fund, and whether (if they do have the willingness and the means) they would prefer (or only be able) to contribute (on a year by year basis) to the costs of current activities in contributing to the capital of a long term endowment that would probably only be spent at a rate of perhaps 5%/year. This should be the subject of future discussions with county government officials by TNC-Kenya and some of the companies and organizations that are members of the Water Funds Steering Committee.

In terms of potential international donors to the Water Fund's endowment, USAID cannot finance the Water Fund because the Upper Tana watershed is not located within USAID's environmental focal areas of northern and eastern Kenya. There also do not seem to be any municipal water funds in Latin America or other parts of the world for which USAID has contributed capital to endowments (in contrast to USAID supporting some of the technical assistance and studies for their design). USAID's current ability to contribute cash to environmental endowment funds is also not clear, other than as part of a debt-for-nature swap with Kenya's national government under the US Tropical Forest Conservation Act.¹⁶

The World Bank would also not be able to contribute to the Water Fund, because the Upper Tana watershed is not located close to any other World Bank-supported environmental projects. A World Bank Senior Environmental Specialist who is responsible for managing environmental projects in Kenya said that the World Bank might possibly be interested in supporting a PES-related water fund for Mombasa as part of the Bank's US \$500 million "Coastal Region Water Security and Climate Resilience Project", which includes constructing a large new dam in Kwale County. However, he said that there is no World Bank loan or project anywhere near the Upper Tana watershed that could serve as a basis for World Bank support of the Nairobi Water Fund.

On the other hand, one possible future source of financing for the Water Fund might come from new international funding for climate change adaptation and REDD+. A World Bank news release on November 24, 2015 stated:

"The World Bank has devised a \$16bn strategy designed to help Africa adapt to climate change and prevent millions of people from sliding into poverty. By fast-tracking clean energy, efficient farming and urban protection, the measures promise to greatly increase renewable energy across the continent, bolster food production and lead to the planting of billions of trees. It is also hoped that the scheme will improve life in cities and reduce poverty, migration and conflict."

The Upper Tana-Nairobi Water Fund seems as though it should qualify for such funding based on a number of the themes just mentioned: improved agricultural practices, tree planting, increased renewable energy (through hydropower), and improving life for the urban poor (in Nairobi). However, it is not clear whether this World Bank funding for Africa will be in the form of grants, or of low interest loans, and whether the \$16 billion would depend on whether developed countries contribute additional funding to the World Bank for this specific purpose, perhaps in relation to the Climate Change summit in Paris held in December 2015. There might also be similar bilateral funding initiatives announced in Paris or later on, but this is not yet clear. It is also not clear whether such funding might need to be

¹⁶ However, for the last several years the US Congress has not appropriated any new funding to support more swaps and debt buy-backs under this Act.

channeled through Kenyan Government agencies rather than going directly to the Water Fund. The Water Fund's Steering Committee members might need to lobby the government about this.

The Water Fund's endowment might also be an attractive option for donors based on the common American saying that "If you build it, they will come". In other words, if very large amounts of new international donor funding suddenly becomes available for climate change adaptation or for other purposes, there might not be enough projects that are "ready to go" and can immediately absorb large amounts of funding. The fact that the Upper Tana Water Fund has been carefully designed, been vetted through a very extensive stakeholder consultation process, received political support, and will be managed in a transparent way by an independent and trustworthy board, are all factors that make the Water Fund into an attractive mechanism for international donors. Indeed, this is one of the common justifications for establishing endowments: instead of spending a large sum of money in a relatively short period (often inefficiently) and then have it "dry up" (which often means that the impacts of projects may also evaporate), smaller amounts of spending can be stretched out over a very long period ("in perpetuity") enabling grantees' "absorptive capacity" (i.e., to effectively and efficiently use their grants) to build up over time.

Fundraising should be a primary responsibility for current Steering Committee members and future Management Board members, as well as for the Water Fund's future CEO. In some cases, it might also be worthwhile to ask certain already committed donors to give significantly larger sums of money. For example, one of the main water users (and therefore one of the main beneficiaries of watershed conservation) is KenGen, whose profits increased by 400% last year to KSh 11.5 billion (which is roughly equivalent to US \$110 million), according to a recent article in the *Daily Nation* newspaper, and around half of all the electric power that KenGen sells is generated from hydroelectric dams on the Tana River. According to the *Business Case*, if the Water Fund makes grants worth \$1 million/year for effective watershed conservation activities, this will result in:

- "Over US\$600,000 increased annual revenue for KenGen as a result of increased power generation and avoided shutdowns and spillages; and
- Approximately US\$250,000 in cost savings a year for NCWSC stemming from avoided filtration, lowered energy consumption, reduced sludge disposal costs and fewer shutdown days."

These companies could therefore be asked to either make annual contributions equal to (for example) two-thirds of the amounts that they are each predicted to earn in increased revenues or cost savings, or else contribute an amount of capital to the endowment that will be sufficient to generate that amount annually from investment earnings.

Some private sector donors might even prefer to contribute capital to the Water Fund's endowment rather than to fund short-term projects. The ability to

contribute to the capitalization of a trust fund that can provide long-term benefits can ease the concerns of donors who would otherwise be skeptical that their one-time contribution would have a meaningful impact on watershed conservation.

A potentially large (but still very uncertain) source of future funding that might be used for capitalizing the Water Fund's endowment (or else for establishing a sinking fund, or for supporting individual Water Fund projects) could come from **new international donor funding for climate change adaptation**. Although none of the currently existing international funds for climate change adaptation has given any grants for capitalizing long-term endowments, this could change if international funding for climate change adaptation is very significantly increased (perhaps even soon after the 2015 UNCCC international climate change meetings that took place in Paris in December 2015). There could then be a challenge for donors of how to effectively spend all this new funding in a way that does not exceed the absorptive capacity of recipient countries, which is something for which endowments and long-term sinking funds are ideally suited. A well-designed Water Fund that has high-level Kenyan government political support but is independent of government could become a very attractive place for donors to channel some of their new funding for climate adaptation. Establishing the Water Fund could turn out to be a case of "If you build it, then they [i.e., donors] will come". This has actually occurred in the case of some CTFs that initially had very small endowments or no endowments.

For example, the Meso-American Reef ("MAR") Fund which supports coral reef conservation in 4 Central American countries operated successfully for around 10 years as a small grant-making institution that was financed mostly by limited-term program grants from US private foundations and NGOs. It was only after the MAR Fund had built up a successful track record that the German Development Bank (KfW) decided to make a 10 million Euro grant to the MAR Fund to establish an endowment, and soon afterwards the French Government (i.e., FFEM) made a 1 million Euro grant to help capitalize the endowment. Perhaps the Water Fund could also succeed in attracting large new amounts of international donor funding for its endowment after the Water Fund is able to demonstrate an impressive 5 or 10-year record of accomplishments in measurably reducing erosion and sedimentation, and improving local livelihoods as well as improving the quantity and quality of Nairobi's water supply.

However, if very large amounts of new international donor funding do become available for spending on climate change adaptation activities in Kenya, there might be a fierce competition among Government ministries and departments (as well as Kenyan NGOs) for access to these funds, and the funds might need to go through government.¹⁷

¹⁷ For example, Kenya's National Environmental Management Agency ("NEMA") has already been accredited as the official Implementing Agency for the "Adaptation Fund" that currently operates under the UNFCCC. However, there are precedents in several other countries for

Section 5: Options for Investment of the Endowment

The Conservation Finance Alliance's 2014 annual survey¹⁸ of the investment performance and practices of 35 conservation trust funds ("CTFs") from around the world concluded that CTFs' average investment returns were significantly lower than the average investment returns of the endowments of more than 500 US colleges and universities, and that the primary reason was because most CTFs have too conservatively allocated a much higher percentage of their endowments to fixed income (bonds and bank deposits) and a much lower percentage of their investments to stocks, in comparison to how US universities have typically invested their endowments. In 2014, the average return of US university endowments was 15.5%, but CTF the average investment return of 35 CTF endowments in 2014 was only 6.22%, up from 5.44% in 2013.

Fixed interest investments such as bonds, T-bills and bank deposits may seem to be a much safer investment than stocks and other types of variable investment (particularly at times such as the 2008 global financial crisis, when average stock prices fell by the largest amounts since the Great Depression of the 1930s). However, taking a longer-term view (as is required when investing an endowment in perpetuity), the picture looks very different. During the seven years from the beginning of 2008 through 2014, if an endowment invested 100% in US stocks (based on the S&P 500 index of the 500 largest companies) this would have produced an average return of 7.3% annually during that 7-year period, even including the global financial crisis of 2008-2009 when stock prices fell sharply). Over a much longer sixty year time period from 1925 to 1985 (including the Great Depression), \$1 invested in US bonds and not spent would have grown to \$8, while \$1 invested in the S&P 500 stock index would have grown to \$211. However, the long-term higher returns offered by stocks and other kinds of non-fixed rate investments are only available by accepting the inevitable short-term fluctuations.

The greatest risk for CTF endowments is not short-term fluctuations in the value of the capital, but losing buying power over time to inflation and devaluation. In order to maintain purchasing power, a CTF's Board should stipulate a rate of reinvestment in the Investment Policy. This should be equal to or greater than the long-term expected rate of inflation. This creates an "Inflation Offset", which will allow an endowment, and therefore the endowment's investment income, to keep pace with the measured rate of inflation over long periods of time. Inflation is normally measured in the currency in which investment is made. Thus, if

conservation trust funds to be designated as Implementing Agencies for the UNFCC Adaptation Fund, such as the Micronesia Conservation Trust and Peru's national protected areas fund (PROFONANPE).

¹⁸ R. Victorine and K. Mathias, *Conservation Trust Investment Survey ("CTIS")* 2014, published in October 2015 by the Conservation Finance Alliance.

investments are made globally, average worldwide inflation should be used. This is the case even if the money is spent in a developing country with high inflation.

The spending policy of a CTF endowment also needs to be realistic. Some CTFs have experienced problems by relying on outdated investment target returns and spending policies in their Investment Policies. If a Trust Fund spends 6% of its capital each year but earns only 4%, then it is only a matter of time before it will need to invade (i.e., spend down) its capital. Therefore, a fund's management board should make adjustments in these numbers if the world economy changes to allow lower or higher returns that are likely to persist for a period of five years or more.

Many of the leading investment advisors and managers of long-term endowments for non-profit institutions (a number of whom are quoted approvingly in the 2014 Conservation Trust Investment Survey) recommend maintaining a minimum of 60% in stocks, even when stocks are trading at high price/earnings valuations.

On the other hand, the reason for keeping something like 30% to 40% of an endowment invested in short term, high-quality bonds and cash equivalents such as bank CDs and short-term government T-bills is to prevent forced selling of stocks when stock prices are down in order to be able to fund the CTF's operations and grants program.

Stock market performance over relatively short periods are notoriously hard to predict, and this is also true of the Kenyan stock market. The World Bank's recently published (October 2015) *Kenya Economic Update* projects that Kenya's economic growth will rise from 5.4 percent in 2014 to 6-7 percent over the next three years (2015-2017), making it one of the fastest-growing economies in Sub-Saharan Africa.

However, according to an October 12, 2015 article by the London-based Overseas Development Institute, "A bubble may be forming in sub-Saharan Africa's emerging private-equity market because too many funds are targeting a small number of companies capable of absorbing international investment..." The November 16, 2015 *Financial Times* expressed strong concerns about developing markets in general at the present time: "Companies from Brazil to China are finding it harder to repay loans and raise fresh cash, hampering growth... Now the Fed [the US Federal Reserve Bank] has called an end to ultra-loose money... The result is a world economy dicing with deflation and recession... Private debt in emerging markets is higher than in developed markets before the 2008 financial crisis.... the problem now is much deeper and much more general than a currency mismatch. This is a pure and simple problem of over-indebtedness and of slowing economic growth."

According to an article in the November 16, 2015 *Wall Street Journal*, in Africa

“debt loads are growing again...thanks to a borrowing spree in the capital markets that has collided with a collapse in local currencies and commodity prices.... The IMF in October slashed its 2015 growth expectations in sub-Saharan Africa by two percentage points to 3.75% and warned that countries would find it harder to borrow. The expected rate of growth would be the slowest in six years for the region... Countries such as Kenya and Angola that weren't part of the debt-forgiveness program last decade are also coming under pressure. Parliamentarians grilled Kenya's treasury secretary last month, demanding accounting details that prove the \$2 billion it raised in a debut Eurobond offering last year was spent on productive infrastructure as promised. Fitch Ratings lowered its outlook on Kenya's credit ratings to negative in October, largely because the country's debt has swelled to 60% of GDP — a level many economists consider too high for an economy of Kenya's size.”

From a strictly financial point of view --- in order to maintain and grow the value of the endowment over the long term --- there seems to be a very strong argument in favor of investing most of the equity portion of the Water Fund's endowment in the US and other developed markets rather than in Kenya and other emerging financial markets, even though investing more of the Water Fund's endowment in Kenya would be preferable from a political public relations viewpoint.

At the very least, the portion of the Water Fund's endowment that has been contributed by international donors in US dollars or other hard currencies should probably be kept invested in US dollars (which has appreciated 7% over the past year against a basket of 16 major currencies, and seems likely to continue to rise as US interest rates go up) and in US and globally diversified investments, rather than being converted into Kenyan Shillings or invested heavily in Kenyan financial markets. On the other hand, the portion of the endowment's capital that has been contributed by Kenyan donors or by the Kenyan government (or local governments) could be kept in Shillings and invested in Kenyan financial markets.

Another investment approach that could be combined with what was just outlined above would be to invest most of the fixed-interest portion of the Water Fund's endowment in US dollar-denominated Kenyan government Treasury bonds, T-bills, and US dollar-denominated bonds and Certificates of Deposit issued by the largest and most internationally highly rated Kenyan banks. This would be a way of **hedging** against further depreciation of the Kenyan Shilling (which has declined by around 20% against the US dollar over the past 18 months)¹⁹ while also taking advantage of the much higher fixed interest rates in US dollars that are currently being offered by highly creditworthy Kenyan financial institutions compared to the much lower fixed interest rates being offered for similar types of

¹⁹ This means that even if an investment made in Kenyan Shillings nominally earned 20% during this 18-month period, its “real” rate of return (measured in US dollars) would have been less than zero, taking into account not only currency depreciation but also inflation.

investments in the US, UK, the EU and Japan (where Central Banks have pushed short-term interest rates close to zero in order to stimulate economic growth).

Of course all of these factors could change over time, and are subject to differing interpretations, which is why investment policies need to be regularly reviewed and updated by the Investment Committee and the Management Board in consultation with the investment advisor or investment consultant hired by the Water Fund. Kenyan short-term fixed interest rates also appear to be very volatile, with the rates being offered on short-term Kenyan Government T-bills going from 22.5% to 9.65% just in one month between mid-October and mid-November 2015.

All of this uncertainty seems to be a good justification for the Water Fund's Management Board to hire an **investment consultant** to assemble a portfolio of investments that are managed by perhaps a dozen different investment managers (each of whom having a different style or investing in a different category of investments) rather than individually hiring one or more investment managers. Investment consultants are usually not single individuals, but teams of specially trained and certified investment experts who operate as part of a much larger financial institution such as a bank or investment firm. They usually do not invest clients' funds with investment managers (or mutual funds) of the same institution, in order to avoid conflicts of interest (i.e., an investment consultant whose role is to use sophisticated financial data analysis to select individual investment managers for different types of investments or different "styles" of investing in order to achieve the endowment's investment targets in accordance with the endowment's investment policy and guidelines) should not be recommending his own firm's investment products (or those of an affiliated or parent firm or bank) for the endowment.²⁰

More than half of all CTFs (including most African CTFs) have hired investment consultants rather than (or sometimes in addition to) hiring individual investment managers, especially for their international investments. On the other hand, if CTFs are buying domestic bonds or stocks, they may find it cheaper (in terms of fees) to buy and sell local currency investments and dollar-denominated Kenyan bonds and stocks.

The 2014 Conservation Trust Investment Survey ("CTIS") defines the difference between an investment consultant and an investment manager in the following way:

²⁰ This is the difference an "investment consultant" and an "investment advisor". According to the 2013 CTIS, "Financial advisors are typically licensed brokers working on behalf of an investment firm." Investment advisors often promote and sell their own firm's investment products.

Investment Management Consultant – A fee-based advisor operating under a non-discretionary arrangement who can provide guidance on portfolio theory, asset allocation, manager search and selection, investment policy and performance measurement. The role of the Investment Management Consultant is to provide independent advice, and the consultant’s primary responsibility is to his/her client. Investment Management Consultants can help to review the performance of Investment Managers relative to the investment goals of the client, and may give the client advice on which investment managers to hire and fire.

Investment Manager – Specialists in managing a portfolio or investments in a specific type of asset, such as medium quality corporate bonds; large-cap value equities, or emerging market governments’ debt. Mutual fund managers, portfolio managers and hedge fund managers are examples of this. Investment Managers act with their own *discretion* to buy and sell investments or hire other asset managers within the parameters specified by the investment guidelines.

There are multiple layers of investment expenses in any investment program. In some cases costs are legally required to be disclosed and in others disclosure is not required. The Investment Committee of a Trust Fund Board should require a report including complete disclosure of all costs, then examine each layer of cost for potential economies.

The following costs are normally incorporated into all investment products and can either be condensed into a single fee, or itemized and separated.

- Investment Advice, or Consulting
- Investment Management
- Custody
- Trading
- Marketing and Administration

It may be possible to reduce investment costs after examination and discussing alternatives with investment professionals. There is a saying that “It takes money to make money” and it is sometimes better to pay a higher fee to access a better investment manager. At some point, reduction in investment fees may compromise the quality of investments, so a balance must be attained. Endowments should be managed with an eye to economy, allowing the endowment to maximize potential returns with a transparent and minimal investment cost structure.

Section 6: Destination of grants

Eligible types of activities

The project activities that will be financed through grants by the Water Fund need to measurably advance the Water Fund's goal of reducing erosion and increasing water quantity and quality in the Upper Tana watershed, primarily through changes in soil and water management practices on farms. In order for such changes to be sustainable, farmers must be financially motivated to both adopt and continue these new practices, and benefits must be distributed equitably. In addition, the Water Fund will need to maintain the motivation for private sector donors to renew and even increase their periodic donations to the Water Fund by demonstrating that their donations have a measurable impact and therefore make sense from a business point of view. Only in this way can the Water Fund's activities achieve long-term continuity and sustainability.

According to Dr. Fred Kizito from CIAT, experiences with watershed conservation in other African countries have shown that it is better not to give farmers cash, but instead to provide things like good ground cover plants for riparian areas, such as soybeans, napier grass, vetiver grass, fruit trees, as well as alternative income sources such as bee hives, and techniques that will lead to higher crop yields, especially in the dry seasons. However, providing such benefits to farmers needs to be conditioned on the beneficiaries' agreeing not to engage in practices that cause erosion and sedimentation, such as farming on the edges of rivers and streams, and their compliance needs to be monitored (and benefits and assistance should be halted if beneficiaries are not in compliance).

Other types of non-cash benefits could include providing farmers alternative sources of energy like biogas and solar stoves (in order to reduce wood and charcoal consumption). It is important to ensure that any income-generating alternative livelihood projects are designed have a beneficial impact on the management of the natural resources base, and not simply have the goal of poverty alleviation.

The *Business Case for the Upper Tana – Nairobi Water Fund* is based on the specific scenario of carrying the following six types of interventions, which should therefore all be priority activities for Water Fund grants:

1. Riparian management such as vegetation buffer zones along riverbanks
2. Agroforestry adoption involving native tree species
3. Terracing of hill slopes on steep and very steep farmland
4. Reforestation using native species for degraded lands on forest edges
5. Grass strips in farmlands
6. Road erosion mitigation

The *Business Case* also mentions the following types of activities that it says should be supported by Water Fund, whose impact is harder to quantify, but still important:

1. *Addressing point sources of pollution and sedimentation.* The Water Fund should support preventive measures in landslide prone areas by planting permanent vegetation as well as managing downhill runoff conveyance to reduce its erosive impacts and prevent further production of sediments that pollute rivers.

2. *Improving quarry management practices.* Most stone quarries are located along riverbanks. Traditional practice included clearing vegetation cover and pushing topsoil downhill to pave the way for easy extraction. Implementing new ways of managing topsoil to avoid erosion coupled with re-vegetation can ensure these sites remain healthy even after stone extraction is completed.

3. *Appropriate agricultural practices and waste disposal.* By engaging coffee farmers to adopt tools like Rainforest Alliance certification, thousands of farmers can be given incentives to scale up sustainable land management on their farms in support of Water Fund objectives while positioning themselves for premium coffee prices in the international market, thus creating win-win scenario for both conservation and livelihoods.

4. *Reducing dry season water demand from rivers and streams by irrigators.* By engaging smallholder farmers who harvest rainwater, storing it in water pans, and applying it to their crops during the dry season, the quality and quantity of the river improves which is good for downstream water users, hydropower generation, and other water needs.

5. *Promoting soil conservation adoption by infrastructure developers.* By promoting best practices for rural infrastructure development, much point erosion can be avoided.

The following types of activities should probably be **ineligible for grants** by the Water Fund for the reasons that are stated below, unless a particular donor provides restricted funding that the Water Fund can only use for such projects, and unless the Management Board determines that such projects would not involve a significant shift in the Water Fund's priorities and strategic plans:

- a) *Relief projects in direct response to specific incidents of natural disasters*, such as landslides, flooding, droughts, forest fires, etc. Such events may become increasingly frequent with climate change, and may require spending very large amounts of money for short term relief that might not necessarily have a long-term sustainable impact on water quality and quantity, and might be better dealt with by emergency and disaster relief programs of the Kenyan government, multilateral and bilateral aid agencies, and private charities that focus on humanitarian aid.

- b) *Projects for conventional large-scale urban management and conventional (non-nature based) infrastructure* (e.g., construction and maintenance of roads, sewage pipes, etc.). Such infrastructure projects tend to be very expensive and could use up most of the Water Fund's grants budget, and should more properly be regarded as the responsibility of local governments, the national government, or else of the private sector and individuals based on the 'user pays' principle.
- c) *Projects to decontaminate or mitigate the impacts of toxic substances.* These types of projects can also be very expensive, and should be the responsibility of those who caused the pollution (such as private manufacturers, state-owned enterprises, municipal governments) or be carried out by the company that has the role of providing clean uncontaminated water to Nairobi as part of the cost of delivering their product, which should be paid for by the users of that product (i.e., water). The courts may need to get involved in apportioning responsibility among different parties involved, based on the common law of "nuisance" and tort, or on Kenyan environmental legislation.
- d) *Projects involving the financing of environmental impact assessment projects for industrial or governmental enterprises such as dams, waste water treatment facilities, etc.* This is the legal and financial responsibility of those initiating such projects.
- e) *Large-scale commercial forestry or agricultural projects.* For-profit companies and businesses should not be eligible to receive grants or loans from the Water Fund (except perhaps in the case of small scale community-based enterprises). National and international development banks can often provide long-term low-interest loans for these types of projects by the private sector.
- f) *Project which require financing on a long-term basis and have no likely additional sources of financing.* The Water Fund's grants should focus on providing short-term incentives, co-financing and technical assistance for new agricultural and land management projects that lead to reduced erosion and sedimentation, but all grants should require some degree of cost-sharing or contribution of labor by the grant beneficiaries, and should be time-limited, based on "internalizing costs" (i.e., making the new practices pay for themselves) after an initial demonstration and start-up period;
- g) *Projects or groups requesting grants only to purchase vehicles or other equipment.*
- h) *Activities that should be part of the regular costs of a private company's doing business,* such as environmental protection equipment and treatment facilities, and conservation practices associated with development that should be borne by the shareholders of the developer;
- i) *Projects that are rightfully the responsibility of government for funding,* such as those required of industrial and infrastructure monitoring and regulatory activities (including enforcement) under national or local laws and regulations.

Eligible Grant Beneficiaries

Because the Water Fund will only have limited resources available for making grants, it is recommended that grants should mostly be given to community based organizations (“CBOs”) and Kenyan non-governmental organizations (“NGOs”) whose members consist primarily of small farmers in the Upper Tana Basin, but not directly to individual farmers (because of the high administrative costs and high possibility of disputes about “fairness” by other individual farmers who are not given grants); and not to national government agencies (because they have the legal authority to raise taxes or other mandatory user fees to pay for whatever they decide is necessary for watershed conservation); and also not to private sector companies (except small community-based enterprises), because private sector companies can frequently access other sources of concessional loans (whose below-market interest rates and long payback periods) for projects that have direct environmental and social benefits, or else private sector companies can frequently internalize the costs for environmental activities (including watershed conservation) as part of their costs of doing business by charging more for their products or services. Grants could be awarded to local governments in priority areas of the Tana River catchment if the grants will be used exclusively for carrying out one or more of the 6 priority activities that were identified in the *Business Plan* and listed on pages 33 to 34 of this report.

In terms of formal eligibility requirements, the Water Fund should require all grant applicants to provide evidence of their qualifications, current legal and fiscal status, consistency of the proposed project with the organization’s mission and its other activities, and the necessary human capacity for implementing the proposed project successfully. The Water Fund should also request all organizations that are applying for grants to provide a detailed proposed budget for the project; a work plan outlining how the project will be executed; demonstration of a bank account in the name of the organization and proof that this bank account requires at least two authorized signatures for cash withdrawals; demonstration of an appropriate accounting system; a copy of a financial audit or financial statements for the last 2 years; and letters of agreement or support by local communities and authorities.

Eligible Implementing Organizations

The kinds of organizations that should be eligible for implementing grants by the Water Fund should include CBOs and local NGOs that are eligible beneficiaries, if those CBOs and NGOs themselves have the necessary legal, financial and technical qualifications to implement the proposed watershed conservation activities. Eligible implementing organizations should also include larger or more specialized (and not necessarily locally based) Kenyan NGOs and academic or research institutions that can provide capacity building, training, technical assistance and administrative assistance to beneficiaries, in order to better enable grant beneficiaries to apply for, design, implement and report on grants from the Water Fund. Eligible implementing organizations could be paid out of the grants made to the ultimate beneficiaries but could also be asked to contribute partial co-financing for their own (i.e., the implementing organization's) activities, and for this reason eligible implementing organizations would be unlikely to include for-profit consulting firms.

However, it will be important to strictly apply the Water Fund's "Conflict of Interest" rules to any cases in which implementing organizations are also members of the Management Board or the Board's Technical Committee(s). For example, if the Water Fund wanted to either hire or give a grant to the Green Belt Movement for the purpose of helping a local community-based farmers organization to design and implement a tree-planting or terracing project on a steep riverbank in order to reduce erosion and sedimentation, and if the Green Belt Movement were also a member of the Water Fund's Management Board, then it should not participate (and not be present in the meeting room) when the Board discusses or votes on awarding a Water Fund grant or contract to the Green Belt Movement for helping local farmers to implement a tree-planting or terracing project.

Section 7: Proposed Duration of the Endowment

Long-term Nature of the Conservation Needs

The *Business Case* for the Water Fund concludes that the key impacts from the Water Fund's proposed activities (a major reduction in soil loss, a major reduction in suspended sediment in streams, and significant water flow benefits) will require implementation of activities to control erosion that last for at least 10 years, and whose value will continue to rise rapidly as the time horizon is extended, even after 30 years. Sediment retention benefits and water flow increases are expected to reach their long-term level 15 years after implementation starts. "A 30-year time horizon is therefore conservative, in that

many interventions will continue to produce benefits beyond that period *if properly maintained.*”

This is why a ‘Hybrid Fund’ financial structure consisting of an endowment and a revolving fund is the best way to ensure sustainability and continuity of watershed investments. As stated in the Business Case, “the Water Fund will have greater flexibility and be able to invest more in longer-term strategies if a higher proportion of the Fund is covered by an endowment.” Having a sizeable endowment will enable the Water Fund continue making grants for maintaining the “green infrastructure” (such as terraces or trees that have been planted on steep slopes) that is initially financed by the Water Fund’s grants, so that the impact of those activities on reducing erosion and sedimentation in the Upper Tana basin will continue over the long-term. Experience in many countries has shown, for example, that initially successful tree planting projects can later fail (and the trees die or be eaten by goats) if people do not have financial incentives to continue protecting and taking care of the trees that have been planted. The cost of such long-term maintenance activities is often much less than the costs of initially constructing or planting the “green infrastructure”, and the costs of initially training people how to implement new agricultural methods.

Option of not Spending Endowment Capital for 20 years and then Reconsidering

Most endowments are typically established to last “in perpetuity”, meaning that the capital is kept intact, and only the annual investment income or earned interest is spent to carry out the purposes of the endowment. However, there is nothing in the Trust Deed, or in Kenya’s Trustee Act or Public Benefits Organisation Act that would legally prevent the Water Fund’s Management Board from deciding to spend any (or all) of the capital of the endowment at any time. The Trust Deed merely says that the purpose of the endowment is to provide “sustainable funding” for the Water Fund’s charitable purpose. The Business Case estimates that 10 years of spending US \$1 million/year would be required in order to significantly increase the water quantity and quality (in terms of sedimentation) of the Upper Tana River, and that the full impacts of the Water Fund’s grants might not be apparent and measurable for 25 years. This makes sense if one considers how long it would take for trees that are planted on steep hillside to reach their full size and maximum root capacity (i.e., capacity for controlling soil erosion).

However, the Water Fund’s Management Board could decide after 20 years that the level of sustainable funding which is required for maintaining the “green infrastructure” that has been financed by the Water Fund’s grants is much less than the funding which was required to initially plant trees, build terraces, or introduce new agricultural methods. The Board might even determine that the on-going costs after 20 years have become “internalized”, meaning that farmers have sufficient built-in financial incentives (for example, due to higher crop yields, and more water available for irrigation) to maintain the “green infrastructure” without any further grants.

It is generally recognized to be a “best practice” for all conservation trust funds (and indeed, for all non-profit organizations) to produce a new strategic plan approximately every 5 years, based on reassessing the organization’s current financial resources, its realistic prospects of raising additional resources, how much of its original mission has been accomplished and what remains to be accomplished, how much it would cost to achieve its mission in the future, and whether that mission should be focused differently.

After 20 years it would also make sense for the Board to reconsider whether to maintain the endowment capital at its existing level, or to gradually begin spending it down, either because other recurrent sources of funding have become available, or because the same level of capital is no longer required in order to accomplish the Water Fund’s purpose, or because rates of return on investing the endowment have been higher (or lower) than originally expected. The reason for waiting 20 years to do this (rather than doing it after 5 years or 10 years) is because the basic activities that are needed to significantly reduce erosion and sedimentation will take at least 10 years to be implemented, and another 10 years to manifest their full impact on water quality and quantity.

Twenty years would also enable the endowment’s capital to be invested with a sufficiently long time horizon, rather than focusing on short-term results. America’s most successful investor Warren Buffett recently said of the stock market, “I’m no good in predicting what will happen in markets tomorrow or next week but the important thing is where they’re going to be in 5 to 10 years. And I’m confident that they’ll be considerably higher in 10 years.” This will also highly likely to be true in Kenya’s case, which is why establishing an endowment that invests both globally and in Kenya makes sense as a way of providing long-term (20 years or more) sustainable financing for watershed conservation in the Upper Tana Basin.

Annex 1: Estimating the Water Fund's Operational Costs

In order to estimate the minimum size required for the endowment, it is necessary to calculate: (1) the minimum average annual grants budget that is needed in order to achieve the Water Fund's basic goals in measurable ways, (2) the average annual amount required to pay for the Water Fund's internal operations and management expenses, (3) the expected average long-term rate of return from investing the endowment, and (4) the average annual amount of the Water Fund's other sources of revenue besides the endowment's investment income. Even making relatively small changes to any of these estimated numbers (such as raising or lowering the estimated average annual rate of return on investments by 1% or 2%) could have a very major impact on the size of the endowment that is required.

This first Annex attempts to estimate the second of these four amounts, i.e. the amount of the Water Fund's annual operational costs.

After comparing and analyzing the minimum staff size of other conservation trust funds, and after discussing the minimum staff needs and overhead requirements of the Water Fund with the Finance Director for TNC's Africa Program and with TNC's Water Fund Manager, the Water Fund's staff (the "Secretariat") needs to include at least the following 4 positions:

- Chief Executive Officer ("CEO")
- Program Officer ("PO")
- Finance Officer ("FO")
- Monitoring and Evaluation Officer ("MEL")
- Administrative Assistant ("AA")

After the Water Fund has launched its grants program, the Water Fund should probably also hire a fifth staff person to be the Monitoring and Evaluation ("M&E") Officer.²¹

Estimated Annual Operating Costs for the Water Fund Secretariat

Based partly on the US dollar amounts that have been budgeted for salaries and other operating costs of the Kenya Wildlife Conservancies Association ("KWCA"),²² which TNC's Africa Finance Director suggested using as a

²¹ The Water Fund could also consider hiring outside consultants to carry out M&E activities when needed, which might be cheaper, but might also carry a risk of inconsistent application of M&E standards if different consultants are used for different projects rather than always using the same in-house M&E Officer.

²² As set forth in the TNC-KWCA Grant Agreement of May 16, 2013. All amounts are denominated in US dollars rather than Shillings because of the approximately 20% devaluation of the Kenyan Shilling in relation to the US dollar the TNC-KWCA Grant Agreement was signed, and the difficulty of trying to estimate future currency exchange rates.

comparable for the Water Fund's Secretariat, it could be initially roughly estimated (subject to further more detailed analysis, and also possibly to further comparison with other comparable organizations in Nairobi), it seems likely that the operating costs for the Water Fund's Secretariat will be around US \$250,000/year, which can be broken down as follows:

- CEO salary and fringe benefits: US \$55,000
- Program Officer salary and fringe benefits: US \$35,000
- Financial Officer salary and fringe benefits: US \$25,000
- Administrative Assistant salary and fringe benefits: US \$15,000
- Monitoring & Evaluation Officer salary and fringe benefits, or cost of contracting independent M & E consultants as needed: US \$30,000

Total salaries and fringe benefits = US \$160,000/year

Vehicle hire or purchase, maintenance and fuel, and travel costs for meetings and field visits by Management Board members and staff = \$50,000/year

Rent = \$20,000/year (including charges by the building for cleaning and security)

Office equipment (including computers and software) and furnishings (excluding the first year, when higher amounts will be required for initial purchases, which might also be donated to the Water Fund rather than purchased): \$2500/year

Telecommunications and office supplies: \$2500/year

Website development and maintenance: \$2000/year

Brochures and publications: \$2000/year

Training for staff and Board members: \$2000/year

Independent Audit: \$2000/year

Miscellaneous and contingencies: \$7000/year

Total Water Fund Operating Expenses = US \$250,000/year.

This means that operating expenses would constitute around 16.7% of the Water fund's estimated total annual budget of \$1.2 million, which is in-line with the requirements or guidelines of many international donors to CTFs that operating expenses should not exceed 15% to 20% of a CTF's annual budget, after a 2-year start-up phase when donors understand that such costs may be higher.

Annex 2: Estimating the long-term rate of return on Investments in US Dollars and in Kenya Shillings

The Water Fund Management Board needs to periodically decide (based on recommendations of the Board's Investment Committee, and based on global and national financial conditions) what specific rates of return should be used as the targets that investment consultants or managers²³ will be expected to meet, setting different target rates or benchmarks for investments in Kenyan shillings and for investments in US dollars (or a basket of selected hard currencies); and in terms of investments in fixed income (i.e., bonds and bank CDs) and variable investment options (such as stocks). If investment managers or an investment consultant fail to meet targets to which it has agreed (and which should be stated in the contracts hiring them), then the Management Board should examine the causes and consider whether or not to seek different investment managers or consultants.

The draft Investment Policy that accompanies this report is modeled on investment policies of a number of different conservation trust funds, including two that have been designed and co-financed by TNC (the Caribbean Biodiversity Fund and the Micronesia Conservation Trust), as well as investment policies for CTFs that have been developed by Conservation International and other organizations. It does not recommend a set of specific investments, but strategy, since that is something that the Finance Committee of the Water Fund's Management Board (which should include finance professionals) will need to discuss with the Investment Manager or Investment Consultant that is hired by the Board, and which will probably need to be reviewed quarterly based on changing global and national financial markets.

However, in order to estimate the size required for the endowment, this report needs to make assumptions about the long-term average rates of return from investing the endowment, which may not be the same as the targets or benchmarks that the Management Board eventually decides to adopt.

The board of the US' largest public pension fund (the California Public Employees' Retirement System, which manages a fund of over \$300 billion, and employs many investments experts) decided on November 18, 2015 to lower its estimate of long-term future net investment returns from 7.5% to 6.5%.

Based on the factors discussed below, this report uses an estimate that the average annual long-term rate of return from investing the endowment will be

²³ The terms "asset manager" and "asset management" are also commonly used, but have exactly the same meaning as the terms "investment manager" and "investment management".

6%/year measured in US dollars. However, even 6% may be over-optimistic. According to an article in the Wall Street Journal on November 8, 2015,

“The S&P 500 now trades at 23 times its companies’ net profits for the past 12 months, far above the 15.5 historical average.... [The] chief U.S. stock strategist at Goldman Sachs Group Inc., forecasts that the S&P 500 will average a total annual return of 5% for the next 10 years, including 2% from dividends and 3% from price gains.... John Bogle, the retired founder of investment giant Vanguard Group, recently...forecast a 4% S&P 500 average annual return over the next 10 years. ...That would mark a sharp break from the past six years. The Dow Jones Industrial Average has risen 174% from its 2009 low and the S&P 500 is up 210%.”

It seems prudent for the Water Fund to not to overestimate future returns from investing its endowment.²⁴

It will probably be possible to obtain a higher average annual nominal rate of return on fixed income and variable investments in Kenya Shillings, but this higher nominal rate may very well turn out be equivalent to a 6% rate of return when measured in US dollars because of:

- continued rise in the value of the US dollar in relation to most other currencies, including the Kenyan shilling (partly due to economic factors such as a likely rise in US interest rates and higher employment levels in the US, and partly due to political factors that are likely to make the US dollar less vulnerable to geopolitical events than the Euro and African currencies;
- inflation rates in Kenya that can be expected to be higher than in the US;
- a likely preference or requirement by most international donors (including TNC) for the Water Fund to keep their contributions to the endowment invested offshore and in US dollars because of the US being a relatively safe haven (politically as well as financially) compared to most other countries.

During meetings in October 2015 with senior managers from Kenyan banks, insurance companies and investment funds the following rates of return were mentioned, which of course are all subject to change, and are not binding:

- the CEO of Genesis Investment Management/ CENTUM said that the average long term return on investments in Kenyan Shillings for its

²⁴ Although the preface to the 2014 Conservation Trust Investment Survey presents the example of Yale University’s endowment, which grew from US \$12.7 billion to \$23.9 billion over the last 10 years, and grew 11% during the fiscal year ending on June 30, 2015. However, Yale’s endowment has had higher returns than any other US university’s endowment, and should not be regarded as a benchmark for the Water Fund to expect to match. For example, during the same most recent fiscal year, Harvard University’s even larger endowment grew only 5.8%, according to the September 24, 2015 *New York Times*.

- pension fund clients (which are fairly conservative in their investment policies) is 10% to 15%;
- the Director of Cassia Capital Partners which does private equity investments (i.e., investments in non-publicly listed companies and partnerships, including real estate partnerships) said that Cassia “often” achieves returns of 30%/year, but of course this might also be at a higher risk than many pension funds and non-profit organizations are willing to take on;
 - a Branch Manager from Cooperative Bank said it could happen that his Bank might be able to offer 18% rate of return on one-year CDs (which is the maximum period of time for which the Bank offers a fixed interest rate CD) in the first year, but then only 10% (or even 2%) in the second year;
 - CFC Life Assurance Company managers mentioned the following interest rates on accounts for which it guarantees that there will be no loss of principal: 10% in 2012, 3% in 2011; 10% in 2010; 6% in 2009;
 - the Principal Officer of Suntra Investment Limited said on October 7, 2015 that the Nairobi Stock Exchange Index was down 25% for the year due partly to sharply higher interest rates, while in 2014 it gained 5%, in 2013 it lost 9%, in 2012 it gained 29%, and in 2011 it gained 19%;
 - Guaranty Trust (“GT”) Bank Kenya (which is a subsidiary of Guaranty Bank in Nigeria) said that it could offer a guaranteed return of 16%/year for 10 years in Kenyan Shillings, but details need to be further discussed.

Indeed, most of these various rates of return on investments in Kenya Shillings are for quite different kinds of investments (i.e., asset categories), so comparing them is a bit like ‘comparing apples with oranges’. As the CEO of Genesis Investments stated, asset allocation [rather than individual stock picking or bond picking] will account for 90% of the long-term return, which is why agreeing to (and actually following) a particular investment policy is so important.

The Water Fund could invest in Kenyan Shillings in a combination of different types of investments managed by different Kenyan financial institutions, although this might mean that their individual investment management fees would be higher in percentage terms if they were each only managing a smaller ‘slice of the pie’.

Annex 3: Obtaining a Kenyan Tax-Exemption

Interest and dividends that Kenyan organizations receive from offshore investments are subject to Kenyan income tax unless the Kenyan recipient is a tax-exempt organization. Section 10 of the First Schedule to Kenya's Income Tax Act makes it possible for an exemption from income taxation to be granted to an organization or trust that is "of a public character established solely for the purposes of the relief of the poverty or distress of the public, or for the advancement of religion or education".

In practice, however, Kenya's Income Tax Commissioner has only granted exemptions to organizations that have actually been carrying out exclusively charitable activities for at least two years. Unlike in the US, it is not possible for a charitable organization to be granted a "ruling" in advance that it will be exempt from taxes based solely on its Trust Deed or other governing legal document.

Furthermore, once a Kenyan charitable organization is granted tax exempt status, the tax exemption is valid only for five years, and then the organization must reapply for it, based on showing that all of its activities during the past five years were undertaken exclusively for its stated charitable purposes.

However, according to one Kenyan tax law expert, the Water Fund could try to argue that since TNC is a founding trustee of the Water Fund, therefore the projects and activities to conserve the Upper Tana Watershed that TNC has been carrying out should be considered as equivalent to being activities of the Water Fund. However, if this argument is made to the tax authorities, it will be important to determine the date on which TNC (as trustee of the Water Fund) started supporting watershed conservation activities in the Upper Tana, in order to satisfy the 2-year requirement. Until and unless the Water Fund receives a tax exemption, the Water Fund will be taxed by Kenya on all of its revenues regardless of the source, even if the money comes from Kenyan government budget allocations, levies, or donations from other recognized tax-exempt organizations.

The Water Fund will also need to have a Kenyan tax exemption certificate in order for Kenyan individuals or corporations to be able to claim a Kenyan tax deduction for their contributions to the Water Fund.

There are also issues of whether or not the Water Fund's grantees or beneficiaries might in some cases have to pay Kenyan income taxes on cash incentive payments or in-kind benefits that they receive from the Water Fund. Anything that the Water Fund pays to farmers for carrying out conservation activities will not be taxable to the farmers, but the Tax Office will scrutinize whether each activity or benefit is for an exclusively and directly for charitable

purposes. For example, the Tax Office recently held that payments which people received from a child protection charity to build fences around their homes in order to protect their daughters did not qualify for a charitable tax exemption on those payments.

According to the Kenyan tax law expert who was interviewed for this report, it is becoming increasingly difficult for organizations to obtain a Kenyan tax exemption, and the main reason for granting tax exemptions now is if the government determines that this will be in Kenya's long-term economic interests.

However, it seems like it could be convincingly argued that the Water Fund will serve Kenya's long-term economic interests by safeguarding Nairobi's future water supply, on which Kenya's continued economic growth depends. The Kenyan tax law expert said that the Water Fund should also try to demonstrate how much longer it would take for the Water Fund's to achieve its charitable purposes if the money that it earns by investing the endowment were to be taxed.

Practically speaking, decisions about whether or not to grant tax exemptions are made by the Minister of Finance (or Principal Secretary) for Finance. The Commissioner General of the Kenya Revenue Authority ("KRA") merely implements such decisions. Parliament is not involved at all in making such decisions.

One possible strategy for speeding up and facilitating the tax exemption approval process would be for members of the Water Fund's Steering Committee (and future members of the Management Board) to convince Kenya Electricity Generating Company (KenGen) to lobby the Minister (or Permanent Secretary) of Finance in support of granting a tax exemption to the Water Fund as being in the national interest.

Annex 4: List of Persons Met

- **Nairobi Water Fund Steering Committee members**
- Water Fund **Founder Trustees**: C/O Eng. Philip Gichuki- Chairman, Emmanuel Rurema- **Pentair**, Charles Oluchina, Greg Overton- TNC
- **KenGen**: Joshua Were
- **CIAT**- Steering Committee scientific team: Dr. Fred Kizito, Senior Scientist
- **TNC**: Fred Kihara, Water Fund Manager; Munira Bashir, Country Director; George Njugi, Field Conservation Coordinator; Rosita Scarborough, TNC Africa Director of Operations and Finance
- **Cooperative Bank of Kenya**: Geoff Ochieng, Branch Manager
- **Liberty Africa Insurance**, Pension Fund Group: Martin Mathai, Eric Obila
- Former manager of the **Lake Naivasha PES Scheme** for WWF: Nancy Njenga
- **Suntra Investment Ltd**: Erastus Kirongothi, Emlyn Ngwiri
- **Cassia Capital Partners**: Imtiaz Khan, Director
- **GT Bank Treasury/ Trade Finance**: James Ndegwa, Ed Kimani
- **Viva Africa Consulting Group**, Senior tax lawyer: Ann Mubia
- **Coulson Harney Advocates**: Alex Njage, Kate Peter
- Informal 5-hour discussion (“**Kamukunji**”) with bankers, insurers, Real estate, Energy Investors, Trade Finance, Hoteliers, Power & Water Utilities, Legal practitioners, business, Water Fund Steering Committee members
- **Genesis Investment Management (CENTUM)**: Patrick Kariuki, Emma Mareri
- **Aga Khan Foundation**: Elizabeth Obanda, Basharat Hussain- COO
- **Water Resources Management Authority**: James Ambuso- Director Finance, Boniface Mwaniki- Deputy Technical Co-ordination Manager catchment conservation
- **Nairobi Securities Exchange**: Chairman Edward Njoroge, CEO Geoffrey Odundo
- **World Bank**: Dinesh Aryal, Natural Resource Management
- **Sasumua Water Resource Users Association**: Stephen Macharia, Chairman
- **Sasumua Dam**: Joseph Karanja, Wanjohi
- **Community Leader** at Mungetho in Maragua Ridge: Stephen Kaminjo

Annex 5: Consultant's Scope of Work

Task 1

Review relevant background documents in Washington, in order to more specifically identify key issues for which further research and further feedback from stakeholders is needed.

Estimated time required: 3.5 days

Task 2

Meetings in Kenya to discuss issues and options relating to the Water Fund with the following people and organizations:

- members of the Steering Committee
- representatives of PENTAIR and Nairobi City Water and Sewerage Company
- lawyers at Coulson Harney
- at least 2 leading accounting/audit firms
- at least 3 or 4 investment management firms/financial advisors or banks that manage in-country investments to discuss opportunities and risks for in-country investments, and options for hedging against possible future additional devaluations of the shilling, or investing in hard currency interest-paying accounts in Kenyan banks), discuss opportunities for investing in local mutual funds, and also meet with staff of the Capital Markets Authority
- relevant national and local governmental agencies, ministries or boards, including the KWS staff who administer the several existing endowments and trusts, the Water Resources Management Authority,
- Nairobi-based representatives of potential bilateral and multilateral donor agencies (in order to find out what conditions, requirements and recommendations they might have about the structure, operating procedures and internal safeguards of the endowment (including lessons learned from their water resource management projects and long-term trust funds in any sector in Kenya)
- other NGOs or charitable foundations that are legally incorporated in Kenya and that manage endowments, in order to learn about any relevant lessons or options regarding the legal, tax and financial issues which may arise in managing an endowment for charitable purposes in Kenya.

Estimated time required: 7.5 days in Nairobi, plus 2-days for a weekend trip to the Upper Tana River watershed, and possible meetings there with selected local stakeholders.

Task 3:

After leaving Kenya, prepare first drafts of the following 3 documents for the Water Fund, and then revise them based on feedback received from TNC and other relevant stakeholders:

Output 1:

A first draft of an **Operations Manual** for the endowment, which covers the 21 specific subjects that are listed on pages 39 to 40 of the 2014 Nairobi Water Fund Legal Design Report:

- (a) The Trustee's procedures for handling Donations;
- (b) The general approach the Trustees adopt in assessing Donation proposals, including their approach to expenditure, investment and reporting conditions proposed to be attached to Donations;
- (c) The Trustee's general fund raising strategy, to seek Donations to the Fund;

- (d) The criteria the Trustees will use in selecting fund managers, investment advisers and other expert advisers;
- (e) The Trustee's policy concerning the proportion of fund income which will be available for expenditure (*the spending rule*);
- (f) The Trustee's general investment strategy for the Fund (which must be consistent with their obligations as trustees), including matters such as:
 - (i) The extent to which the fund is to be held in diversified investments; and
 - (ii) The kinds of investments the Trustees will use;
- (g) The Trustee's policy in relation to contracts and other arrangements with providers of goods and services including asset managers;
- (h) The procedures the Trustees will follow for the financial management of the Fund;
- (i) The procedures the Trustees will follow for the preparation and publication of accounts of the Fund;
- (j) The procedures for audit of the accounts of the Fund and preparation of annual financial statements;
- (k) The procedures for review of the operations of the Fund and the procedures for selection of an external independent reviewer.
- (l) How audited annual financial statements and reviews of the Fund will be made available publicly;
- (m) The Trustee's policies with respect to eligibility of activities and eligibility of applicants for support;
- (n) The way in which the Trustees will seek proposals for projects and activities to be supported, and other ways in which possible projects and activities are to be identified;
- (o) The ways in which projects and activities are assessed for support from the Fund;
- (p) The Trustee's policy with respect to the types of support that will be made available;
- (q) The way in which, and the bases on which, the Trustees make decisions about whether the Fund, will support a particular project or activities, the level of support to be given and the conditions to be imposed on that support;
- (r) How the Trustees will help applicants prepare proposals for support;
- (s) The Trustee's procedures for reviewing the Fund and monitoring and evaluating projects and activities being supported by the Fund;
- (t) The procedures for payment of grants and other forms of support and for reporting by recipients of support;
- (u) The establishment, functions and operations of advisory bodies and committees established by the Trustees.

Output 2:

The first draft of an **Investment Policy/Guidelines** for the Endowment, including:

- the arrangements required in order to manage and disburse these financial resources, ensuring that the best principles of governance, financial oversight and control, accountability and transparency are maintained
- the social and environmental criteria for selecting investments,
- the permissible options for hedging against future currency devaluation
- whether (and if so, under what circumstances) any part of the capital of the endowment could ever be spent (e.g., in certain defined emergency situations)

Output 3:

A report that discusses and analyzes the options for addressing the following issues:

- Size of the fund, based on needs and yields (currently estimated at \$15m)
- Location of the fund (to be based on decisions of the Steering Committee meeting and consultations with TNC)
- Modalities of capitalization and sources of capital
- Options for Investment (fund managers/stock market/ CMA members)
- destination of grants (i.e., eligible types of activities, eligible grant, beneficiaries, and eligible implementing organizations)