

Nile Basin Initiative

**Scenario Construction: The Future of Nile Cooperation Ten Years from Now**

**Project Report**

Prepared by Bart Hilhorst

9 November 2014

PROJECT REPORT (FINAL)

|  |  |
| --- | --- |
| Project Title | Scenario Construction: The Future of Nile Cooperation Ten Years from Now |
| Project Reference | NA |
| Client | Nile Basin Initiative (NBI) |
| Consultant | Bart Hilhorst |
| Date of Report | 9 November 2014 |
| Period | July – October 2014 |
| Report drafted by | Bart Hilhorst |

Table of Contents

[1 Introduction 3](#_Toc403304152)

[1.1 Background and Context 3](#_Toc403304153)

[2 Project Objectives and Setup 3](#_Toc403304154)

[2.1 Project Objectives 3](#_Toc403304155)

[2.2 Methodology 4](#_Toc403304156)

[2.3 Detailed Approach 5](#_Toc403304157)

[3 Scenario Development 6](#_Toc403304158)

[3.1 Scenario Workshop 6](#_Toc403304159)

[3.2 Predetermined and Uncertain Elements 7](#_Toc403304160)

[3.3 Impact – Uncertainty Matrix 7](#_Toc403304161)

[3.4 Scenario Frame 8](#_Toc403304162)

[3.5 Critical Assumptions 9](#_Toc403304163)

[3.6 Scenario Logics 9](#_Toc403304164)

[3.7 Scenario Synopsis 9](#_Toc403304165)

[3.7.1 Rise of the Rest 10](#_Toc403304166)

[3.7.2 Cold Nile 11](#_Toc403304167)

[3.7.3 One Nile 12](#_Toc403304168)

[3.7.4 Scenario Four 13](#_Toc403304169)

[3.8 Limitations 15](#_Toc403304170)

[4 Use of the Scenario Set 16](#_Toc403304171)

[4.1 What-If Applications 16](#_Toc403304172)

[4.2 Selected Policy Insights 16](#_Toc403304173)

[5 Proposed Follow-Up 17](#_Toc403304174)

[6 Conclusions 18](#_Toc403304175)

Annexes

Annex 1: Terms of Reference

Annex 2: Background Summary

Annex 3: List of Participants

Annex 4: Workshop Agenda

Annex 5: Predetermined and Uncertain Elements

Annex 6: Scenario Logics

# Introduction

NBI has initiated a scenario project to develop internally-consistent and plausible scenarios of the future of Nile cooperation. The horizon year of the scenarios has been set to 2024. The scenario set is intended to inform a strategizing process to set the direction of the NBI Institutions for the period 2015-2018. The scenario set was developed through a systematic, highly interactive, and participatory process by a group of Nile stakeholders that included – among others - the members of the Nile Technical Advisory Group (Nile TAC).

This report describes the methodology used and discusses the results of the exercise. It presents the scenario logics and the associated scenario stories. It follows with a discussion on the use of the scenario set and proposed follow-up activities.

## Background and Context

The Nile is shared by 11 countries. The riparian communities are facing multiple and complex development and environmental challenges, and ongoing population growth puts unprecedented pressure on scarce water resources. Concerted efforts are ongoing to strengthen cooperation among the Nile riparians, and important progress has been made since the establishment of the Nile Basin Initiative (NBI) in 1999. At this point in time, however, the shape and dynamics of Nile cooperation is subject to a number of uncertainties. Will the international donor community continue its current level of support to the regional NBI centers? Can financing be mobilized for the large infrastructure investment projects that will increase the benefits accrued from the Nile waters? Will policy harmonization among the riparian states progress rapidly enough to facilitate coordinated and integrated management of the Nile waters?

The above questions represent just a few of the uncertainties facing Nile policy makers when they discuss how to strengthen and deepen shared management of the joint Nile waters.

When looking at longer time-frames – say 10 years – ignoring uncertainty in a dynamic environment is not effective, neither is it justified. Here, scenarios have proved effective. Scenarios are credible stories about the future that can help us recognize and adapt to changing aspects of the external environment. They explicitly acknowledge uncertainty. By examining predetermined and uncertain elements, they gradually get into view of what is driving the ‘system’ and the underlying structural relations. This understanding is critical for making informed decisions.

NBI has initiated a scenario project to examine the future of Nile cooperation in the horizon year 2024. It represents a 10-year window that extends well beyond typical project cycles and the planning of technical programs, but clearly falls within the time frame of most investment decisions.

The Terms of Reference for the consultancy are attached in Annex 1.

# Project Objectives and Setup

## Project Objectives

As discussed in paragraph 1, the Nile context is subject to considerable uncertainties that may change the shape and dynamics of Nile cooperation in quite fundamental ways. Faced with this uncertain environment, effective medium-term analysis and future thinking can provide valuable insights to managers and decision makers on how to navigate this future landscape. What is required is:

* A clear understanding of the driving forces that shape the future landscapes;
* An appreciation of the different pathways in which these futures may develop, based on the interplay of the key driving forces;
* An assessment of the end-states of these futures, and an appreciation of their desirability;
* An evaluation of the risks we face in these possible future landscapes, and ways how to mitigate them;
* An analysis of where we can influence the course of events with the aim to arrive at more desirable future outcomes;
* An appreciation of the options at our disposal to adapt to the possible future landscapes;
* Tools that enhance our capacity to perceive change, and help us to respond quickly when a direction of change becomes evident.

But while the above outputs are essential, they are not enough. More is needed. Action to respond to the new challenges requires alignment of views among the key actors. Non-coordinated and non-integrated responses by diverse actors are usually ineffective and often counter-productive, and typically do not lead to the desired outcome. Thus a level of consensus is needed among decision makers on the most effective ways to navigate and shape the future pathways. Therefore, an additional objective of the scenario exercise is:

* Create an alignment of views among key stakeholder and actors on how the uncertainties might affect their collective future, and what to do to prevent undesired outcomes.

## Methodology

The general setup of the project involved the following elements.

Setting the agenda. A select number of interviews were conducted with relevant stakeholders (e.g. NBI staff, Nile Country Government officials, Development Partners, and selected professionals) with the aim to articulate the issues and factors that had to be considered, and assess the territory where the scenarios needed to provide new illumination. It is noted that the external Nile context is very wide indeed, and that it was important to focus the scenarios on the key areas of relevance to future Nile cooperation. This step also aimed to gather building blocks for the scenarios.

Preparation of a background paper. This paper served to introduce the concepts and application of scenario thinking to the workshop participants. It discussed the relevance of the exercise for Nile cooperation, and how the scenarios can support the NBI in promoting agreement on the shape and effective pathways of Nile cooperation. The document concluded with a description of the scenario development process. A summary of the background paper is presented in Annex 2.

Identification of workshop participants. In order to be effective, only a relatively small group (approximately 25 people) could participate in the scenario building process. Group selection was critical to the success of the exercise. It had to reflect the need for quality insights from key stakeholders to get an effective analysis of the problem situation, and ensure that all important perspectives were taken into consideration. In the Nile basin context, this implied a multi-disciplinary team that included members from all NBI member countries. The list of participants is presented in Annex 3. The scenario team included – among others - members of the Nile Technical Advisory Committee (Nile TAC).

Facilitate a scenario development process. The selected scenario development methodology built strongly on the approach developed by the Global Business Network and Kees van der Heijden (see references). The method is robust and proven, and involves a rigorous analysis of the driving forces that affect the problem situation. It follows a systematic and highly participatory process, and builds on the perspective of a broad group of actors, and therefore considers the functioning of the system as a whole – the bigger picture. The process typically results in a set of internally-consistent and plausible scenario logics and scenario synopsis, which describe alternative pathways of the future based on the interplay of the relevant driving forces. The process steps involved are described more in detail in the next paragraph.

Produce a report on the workshop proceedings. This document – the present report - presents the consolidated scenario logics and scenario synopsis. It concludes with exploring ways to use the scenario set and communicate the process gains to a much wider audience.

## Detailed Approach

The figure below presents the setup of a typical scenario project.

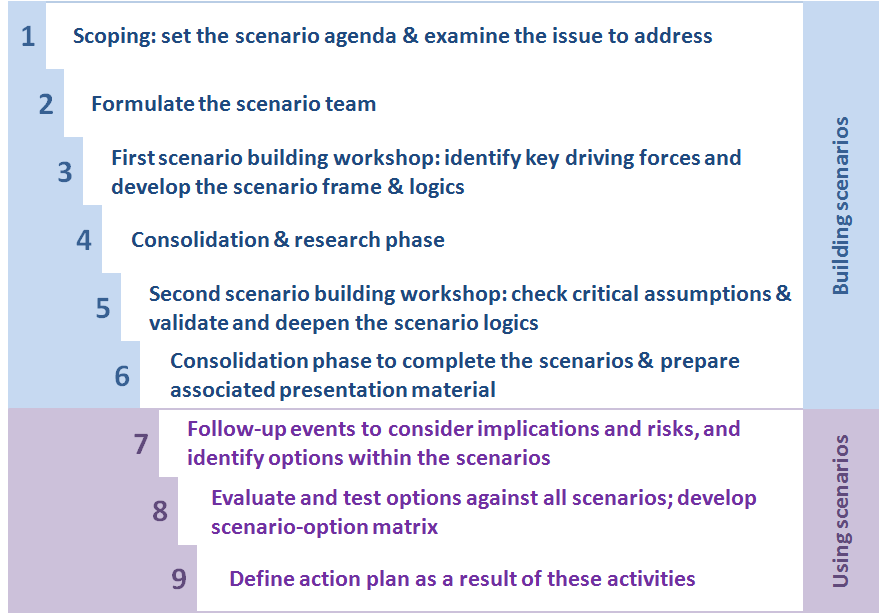


Figure 1: Typical setup of a scenario project

Steps 1 to 6 are concerned with building the scenarios. The schematic above involves two scenario building workshops but in the Nile project these two events were combined. Consequently, further iteration may be needed to validate and deepen the scenario logics and narratives. It should be noted that the value of the scenario set is greatly enhanced when all stakeholders agree that they are plausible and valid, and ‘ownership’ is created.

Steps 7 to 9 are concerned with using the scenario set in a workshop setting to examine relevant policy questions.

# Scenario Development

## Scenario Workshop

The scenario workshop was held from 8-12 September 2014 at Speke Munyonyo Resort in Kampala, Uganda. Impressions of the highly interactive and participatory event are given below. The list of participants in presented in Annex 3 while the workshop agenda is shown in Annex 4.

|  |  |
| --- | --- |
| D:\BartWork\LongBow\Projects\ScenarioWork\NileCooperation\PICTURES\IMG_1360.JPG | D:\BartWork\LongBow\Projects\ScenarioWork\NileCooperation\PICTURES\IMG_1357.JPG |
| Meeting of minds: discussing the scenario elements | A joint thinking exercise |
| D:\BartWork\LongBow\Projects\ScenarioWork\NileCooperation\PICTURES\IMG_1203.JPG | D:\BartWork\LongBow\Projects\ScenarioWork\NileCooperation\PICTURES\IMG_1347.JPG |
| Clustering driving forces | Participation of a wide range of stakeholders |
| D:\BartWork\LongBow\Projects\ScenarioWork\NileCooperation\PICTURES\IMG_1329.JPG | D:\BartWork\LongBow\Projects\ScenarioWork\NileCooperation\PICTURES\IMG_1245.JPG |
| Jointly developing the scenario frame | Identifying uncertain elements |

## Predetermined and Uncertain Elements

Predetermined Elements

Because of momentum or system inertia, some elements in the contextual environment are in fact predictable. They are the “predetermined elements”, and are virtually certain to occur in the time window that we have selected. An example is demography. In a 10-year time frame, population is a predictable phenomenon.

The workshop identified a large number of predetermined elements in the Nile contextual environment. They are presented in Annex 5. It is important to note that the selected time frame – 10 year in this particular exercise – is a critical parameter when distinguishing between predetermined and uncertain elements. For instance, in a 10-year time frame, it is not realistic to expect that (many) potential dam projects can be completed if preparatory work has not already started. This expectation changes quite dramatically in a 25-year time window.

Driving forces that are relatively predictable (predetermined elements) will be included in all scenarios.

Uncertain Elements

A number of factors in the Nile contextual environment are fundamentally uncertain. With the knowledge and means that we have, we are unable to predict or control the behavior of these parameters in the selected time frame. These factors are called “uncertain elements”.

The workshop identified a large set of uncertain elements. They are presented in Annex 5. In a subsequent exercise, the random uncertain elements were clustered into distinct uncertain categories. The results of the exercise are depicted below.

|  |  |
| --- | --- |
| D:\BartWork\LongBow\Projects\ScenarioWork\NileCooperation\PICTURES\IMG_1280.JPG | D:\BartWork\LongBow\Projects\ScenarioWork\NileCooperation\PICTURES\IMG_1308.JPG |
| Clustering uncertain elements (1) | Clustering uncertain elements (2) |

## Impact – Uncertainty Matrix

In a subsequent exercise, the uncertainty clusters were positioned relative to each other as a function of uncertainty and importance. This process is depicted in the figures below. In effect, it maps the uncertainty clusters on two axes, assessing each factor on an uncertainty / relative-predictability scale and important / unimportant scale. All driving forces that are considered unimportant can be discarded.

The uncertain driving forces most uncertain and most important are the “key uncertainties” that determine the axis of the scenario frame.

|  |  |
| --- | --- |
| D:\BartWork\LongBow\Projects\ScenarioWork\NileCooperation\PICTURES\IMG_1338.JPG | D:\BartWork\LongBow\Projects\ScenarioWork\NileCooperation\PICTURES\IMG_1333.JPG |
| Impact – Uncertainty matrix: group 1 | Impact – Uncertainty matrix: group 2 |

In a subsequent exercise, the results of the two groups were harmonized. The resulting key structural variables were defined as: 1) integration & goodwill, and 2) financial sustainability of the Nile institutions.

Integration & goodwill involves factors such as:

* Regional political cooperation and economic integration
* Political stability
* Policy harmonization
* Inclusive cooperation
* Agreed upon legal framework
* Visionary leadership in the Nile basin
* Political will of high-level decision makers
* Honoring obligations to maintain basin in practice
* Data and information sharing

Financial sustainability of the Nile institutions involves factors such as:

* Donor funding to maintain NBI institutions
* National contributions to NBI institutions
* Development partners involvement in the Nile process
* Financial limitations of development partners (due to policy changes or economic constraints)

## Scenario Frame

Based on the two key structural variables, a 2 x 2 scenario matrix was developed, indicating four scenario end-states for the scenario set. The matrix is presented below. Four scenarios are developed at the extreme corners of the scenario frame/matrix, representing the outer-range of the possible outcomes of the interplay of the two key uncertain factors.



The Future of Nile Cooperation: Scenario Matrix/Frame

## Critical Assumptions

Critical assumptions are facts or characteristics that will likely affect the scenario logics and need to be true for the logics to be valid. In a workshop exercise, the below critical assumptions were identified and reviewed:

* A strong and effective NBI will take into consideration the interests of all riparians, even in the event that not all riparians actively participate in the NBI;
* Without the NBI, regional integration is dominated by economic interest at the expense of the river basin focus; in particular the basin-wide perspective may be lost;
* The Nile riparians will observe the UN Water Convention;
* The Nile riparians will observe the international agreements they have signed up to;
* After 10 years of project preparation, and because many riparians now have experience in implementing large infrastructure projects (such as Bujagali, the power interconnector between Sudan and Ethiopia, Merowe Dam, etc.), projects can be implemented in an effective and speedy manner once the right enabling environment is in place.

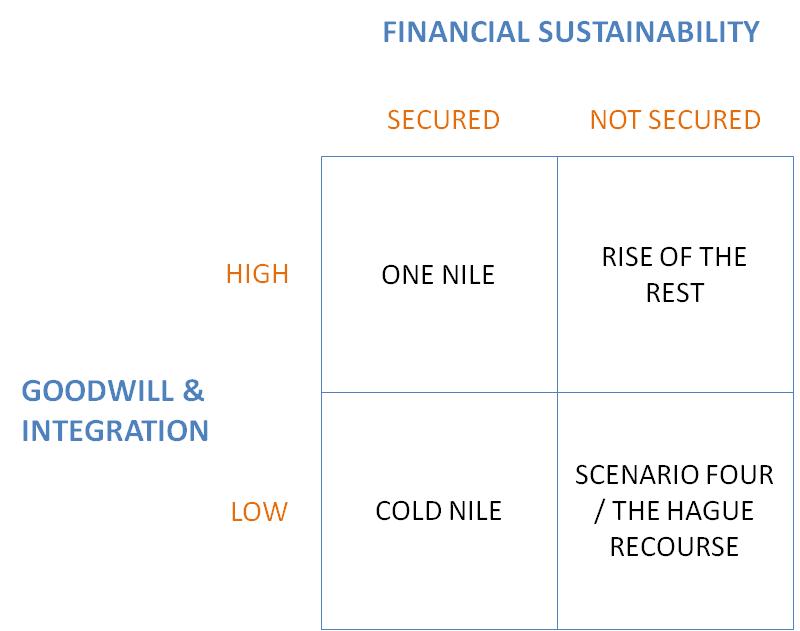
## Scenario Logics

Four comprehensive scenario logics were prepared on the basis of the scenario frame in the above figure. They show how developments influence each other and how variables reach their 2024 end-state. The scenario logics serve as the basis for preparing the scenario synopses presented in the next paragraph.

The scenario logics are presented in Annex 6.

## Scenario Synopsis

The project team prepared four scenario synopses, which provide an overview of how “the future of Nile cooperation” could develop for all four scenario logics, as indicated in the below figure.



### Rise of the Rest

In response to external challenges such as financial instability and spikes in food prices across the globe, Nile countries strengthen political, social, and economic integration. Longstanding efforts to improve infrastructure, harmonize policies and trade rules, and remove obstacles to free trade such as tariffs and quotas, have been brought to successful completion. It makes it easier for the riparians to implement joint investments and increase cross-border trade. Growing trade volumes and the rapidly increasing number of economic interactions strengthen the case for enhanced cooperation and coordinated development policies. This broad cooperative agenda stretches to the shared Nile resources, and there is political will at the highest level to achieve optimal and basin-wide socio-economic benefits from the common Nile water resources. In support of this objective, a Nile Basin Commission is formed, which co-exists with two existing institutions at sub-basin level – SAPs – specifically mandated to prepare investment projects.

In the mean time, ongoing population growth and general economic development is putting unprecedented pressure on land and water resources. This situation is further aggravated by the water-related investment projects – large and small – that are mushrooming across the basin because of the generally stable political and socio-economic environment. It is clear that coordination is required in order to prevent inefficient use of water resources and possible conflicts. Synchronization is also needed between the ad-hoc groupings that have come together to operate cross-border infrastructure such as Rusumo hydro facility or the power-interconnectors across the basin, which by now have been completed. Also, various multi-country arrangements are formed around specific issues such as managing the floodplain and wetland areas in South Sudan to support the pastoralist economy, or operation of GERD for hydropower optimization, flood mitigation, and irrigation scheduling in the Blue Nile area.

Given the obvious need for cross-border coordination, governments realize the value of the cooperative arrangements provided by the Nile institutions and – after lobbying by TAC members - increase national funding. This is, however, not matched by support from the development partners – who have recently greatly reduced their development cooperation efforts due to budgetary constrains at home - and overall funding to the Nile institutions remains inadequate. Choices will have to be made. With inadequate funding to maintain its strong technical expertise and institutional support, the basin commission with its sub basin organizations finds it difficult to coordinate the myriad water related development initiatives across the basin. Actions on the ground outpace the coordination effort and the Nile commission struggles to remain in the driver seat. In fact, many decision makers in the national line ministries – in a hurry to implement projects and feeling the need for coordination at local and sub-basin level - start perceiving the commission as too slow, and question the need for so many consultations with all basin stakeholders. They slowly gravitate towards Regional Economic Groupings (REGs) such as EAC and IGAD, which are politically enabled and have steadily strengthened in the last few years, and comprise well-established structures for coordinating regional issues and supporting regional investment projects. With their technical capacity and well researched portfolio of projects ready for investment, the SAPs seamlessly fit into this setup.

It provides for an effective project implementation machine: efficient coordination by the regional institutions, the comprehensive portfolio of well-prepared projects by the SAPs, and growing experience in project implementation. The key stakeholders at national level endorse this formula without much second thought, and water related development accelerates in the respective sub-basins. The basin-wide focus, however, is gradually lost.

In the “Rise of the Rest” scenario, the Nile basin splits into a number of well-coordinated sub-basins and regional programs. Basin-wide coordination, however, is poor and potential benefits from the shared Nile waters are not realized. The absence of effective basin-wide cooperative arrangements is felt particularly in the longer term – when the negative consequences of climate change start hitting home, and adaptation and mitigation measures would have benefited from the larger set of options provided by a basin-wide approach.

### Cold Nile

On the back of tough economic conditions and a youth bulge largely unemployed, vocal and restless, a number of Nile countries take a more nationalistic turn. Populist politicians ignore information from technical specialists about the integrated nature of water resources management and focus primarily and selfishly on national economic growth opportunities. They appeal to emotions - not facts - and follow a simple rhetoric “it is our water” that resonates well with people struggling to make ends meet. Biased and misinformed media supports the populist case and propagates the zero-sum perspective, slowly pressuring the national political leadership to adopt policies based on narrow national interests that ignore the concerns of the other riparians. Seeing their interests ignored – and sometimes violated – the affected riparians retaliate in kind and the general atmosphere regarding cooperation deteriorates. The basin-wide perspective is under threat.

Sensing the deteriorating atmosphere and possible loss of the basin-wide focus, development partners step up their support to the Nile institutions. Adequate funding is made available and the Nile institutions are able to maintain their strong technical capacity and institutional support faculties. Basin-wide projects to promote stakeholder involvement and benefit sharing are re-instated, while the SAPs prepare a comprehensive portfolio of transboundary investment projects. Nevertheless, goodwill has been lost and the absence of a cooperative spirit permeates the functioning of the Nile commission and the basin-wide development efforts. For instance, countries cannot agree on mechanisms for benefit sharing. Without this, and with disagreement on water-related development priorities, the Nile countries struggle to mobilize large-scale funding for cross-border investment projects. With no tangible contributions to socio-economic development, people start questioning the purpose and use of the Nile institutions. The Nile commission is fodder for populist politicians.

Even though transboundary investments are stalled, countries continue pursuing their national development agenda. These are, however, not embedded into a regional program and there is only piecemeal and ad-hoc negotiation with the other riparians driven by interests of the moment. It leads to fragmented and uncoordinated water resources development following divergent national priorities, and - almost by definition - to sub-optimal use of scarce water resources.

With population growth and autonomous socio-economic development further increasing pressure on land and water resources, tensions start rising over use of the Nile waters.

In spite of the tense atmosphere, a number of practical reasons exist for transboundary cooperation. The large cross-border projects initiated in the NBI era - such as Rusumo hydro facility and the power inter-connectors – have been completed, and so is the Grand Ethiopian Renaissance Dam. They represent ‘facts on the ground’ and groupings of countries work out sensible arrangements how to operate these facilities in order to maximize their local economic returns, and mitigate negative consequences. This issue-driven coordination is practical and robust, and maintained irrespective of the political climate and occasional tensions that flare up in the region. It is, however, not embedded into the basin-wide context and does not consider other development objectives, or the operation of other water facilities in the basin.

In the mean time, the Nile institutions - spurred on by the development partners – provide a platform to mediate between the various parties over the small and medium-scale water conflicts emerging all across the basin, and to coordinate water development projects as best as they can. This mediation and conflict resolution effort takes place on a case-by-case basis and with somewhat reluctant participation from the riparians. The UN Water Convention is now well established, and in a number of cases the antagonists simply prefer to recourse to international bodies rather than accept the mediation offer from the Nile institutions.

Cooperation efforts, therefore, are fragmented and despite the best efforts from the Nile institutions it is simply not possible to maintain the ‘One Nile’ focus in this tense and opportunistic atmosphere. The basin-wide perspective is gradually lost. Nile water resources development, consequently, is sub-optimal and subject to persistent low-level tension inherent to the uncoordinated nature of the myriad development projects in the respective riparians, which are primarily designed to serve national interests.

Without real support from the Nile countries and almost fully dependent on the development partners, the future and status of the Nile institutions remains unclear.

### One Nile

In this scenario, visionary leaders realize the benefits associated with a permanent resolution of the Nile water issue, and hammer out – Camp David style – a comprehensive water management and benefit sharing agreement. With an inclusive Nile commission in place, it is possible to mobilize funding for medium and large-scale bilateral and multi-lateral infrastructure projects, which have already been prepared by the SAPS as part of their portfolio of well-prepared investment proposals. In addition, governments continue implementing their national development agenda, and many new projects are initiated.

The pace of their implementation surprises many. Funding is made quickly available and Nile countries have gained valuable experience in building large hydraulic infrastructure in recent years – such as Rusumo, Karuma, GERD, and the Upper Atbara Complex - while the preparatory work by the SAPs makes it possible to start actual construction work within reasonable time. The projects create facts on the ground and demonstrate tangible benefits of cooperation, while directly contributing to socio-economic development. It further cements the cooperative spirit.

It is clear that the planning and operation of the many new projects – as well as the existing infrastructure such as the power-interconnectors or Rusumo - need to be coordinated in order to avoid sub-optimal use of Nile water resources or even conflicts. The already strong case for more basin-wide coordination is reinforced by ongoing population growth and autonomous socio-economic development, which relentlessly increase pressure on scarce land and water resources, and could lead to tension if not handled well. While the need for harmonizing the development efforts is clear-cut, the question is how to do it. The task is made even harder by the challenge to maintain the basin-wide focus in this diverse 11-country environment – even with transboundary relations now characterized by a cooperative spirit and goodwill.

The Nile institutions offer a solution.

With the establishment of the inclusive permanent Nile Basin Commission, the development partners feel encouraged to continue supporting the Nile institutions in a joint effort with the national governments. The technical and institutional capacity of the Commission – as well as of the SAPs – improves steadily and NBC takes the lead in harmonizing policies and coordinating investment projects. With strong leadership and adequate resources, the NBC drives the agenda, keeps external partners involved and directs their support, engages and informs TAC while tempering their natural tendency to focus predominantly on national priorities, and maintains the focus on basin-wide interests and cooperation. The Nile institutions also initiate projects on watershed protection and hydrometric monitoring, which are essential to preserve the integrity of the water resources in the basin and optimize their benefits, but have a less direct relation to economic growth.

The new cooperative dynamic instills confidence and provides a stable investment environment, and international investors line up to get a piece of the action and work with national actors to develop the Nile water potential, in support of the national and regional development agendas. With more and more foreign investments, and strong and coordinated national and regional development efforts, the Nile economies continue to expand at a rapid pace.

It results in a growing tax base and higher government budgets, which receive yet another boost from revenue from newly exploited gas and oil fields. Because the Nile countries value the cooperative arrangements offered by the Nile institutions, they undertake to provide the organization with adequate funding and donor support is gradually reduced. An effective and sustainable Nile Basin Commission that maintains the basin-wide focus is now firmly established. It plays an essential role in capturing the full benefits from the shared Nile resources.

### Scenario Four

Enough countries – among them the “Entebbe group” - have ratified the CFA and a permanent Nile commission is established, but most traditional development partners withdraw from the NBI project when not all riparians participate in the new commission. Their commitment has always been to inclusive Nile cooperation – not to a subset. An effort is made to mobilize resources from a group of new non-western donors such as China, Saudi Arabia, and Qatar – who had previously indicated a willingness to step in – but on closer examination their interest is above all in land leases and large agricultural investment projects. Supporting an institution - without immediate return-on-investment – is not considered a priority.

With only very limited external support, the Nile institutions have to rely almost exclusively on national funding. While some national governments are quite willing ‘to make it work’ and increase funding, others have different priorities and fail to pay their contributions in time. They do not really see clear benefits from the NBC, and have somehow lost faith after so many years without real progress. Without adequate funding, the Nile commission struggles to maintain its technical and institutional capacity, and is no longer in a position to drive the Nile agenda and coordinate the regional development efforts. TAC for its part – without clear leadership - is mostly preoccupied with safeguarding national interests rather than having a basin-wide perspective. The Nile institutions endure but are no longer able to provide the leadership needed to keep the basin together and maintain the One-Nile focus.

Hard economic times and pervasive poverty coincides with adverse climatic conditions – a multi-year drought - and a number of Nile countries are impelled to focus first and foremost on immediate national interests. Some are overwhelmed by the day-to-day issues – such as food security and providing essential infrastructure - and have only limited capacity for long-term planning and regional coordination. Driven by immediate priorities, the national water development agenda dominates, and unilateral water projects conflict repeatedly with equally uncoordinated development efforts in the neighboring states. Other bi-lateral issues – not related to water resources, such as refugee influxes or delays in improving custom facilities to reduce trade transaction costs – add to the irritation. Frustrations linger and start eroding the remaining goodwill built up in the NBI era. The cooperative Nile spirit is under strain.

Pressure on scarce land and water resources is rising steadily due to population growth, ongoing socio-economic development, and the fragmented and uncoordinated water development projects scattered across the basin. Although the Nile institutions are still around, they are in no shape or form to provide a platform for coordination, arbitration, or conflict resolution. In the absence of such mechanism, tensions over use of the shared water resources are almost inevitable and flare up on a regular basis. Fuel is added to the fire by populist rhetoric - which has free reign because few people are aware of the facts and potential benefits of Nile cooperation, and the Nile institutions no longer have the institutional and technical capacity to generate and disseminate this information. Hence rather than reason, emotions and myth dominate the Nile discourse. Cooperation in this environment is reduced to ad-hoc and opportunistic negotiations on a number of bi- or tri-lateral issues of immediate concern. Examples include operation of Rusumo hydro facility, the power inter-connectors, and the Grand Ethiopian Renaissance Dam, which have by now been completed. While individuals in the technical ministries work hard to preserve good working relations with their peers and friends in the neighboring countries, their political bosses have lost faith in the cooperative process and are much keener to invoke the UN Water Convention and refer water allocation conflicts to international bodies - such as the International Court of Justice or the Permanent Court of Arbitration, both based in The Hague. It leads to never-ending legal wrangles about the exact meaning of “reasonable and equitable use of transboundary waters”.

In this environment, Nile cooperation slowly disintegrates and the basin-wide focus is lost. Foreign investors stay out, and the development potential of the Nile water cannot be realized. The Nile centers themselves linger on but with limited purpose and means – as yet another moribund institution.

## Limitations

A number of limitations in the project setup have been identified and are discussed below.

Short duration of first consolidation & research phase

Scenario thinking aims at better understanding the future contextual environment. With regard to the future of Nile cooperation, the contextual environment is complex and dynamic, and subject to considerable uncertainties. Mapping the causal structure that underlies this system – in order to arrive at a deeper understanding of the cause-effect relations - may require a number of iterations.

The outcome of part 1 of the workshop includes prototype scenario logics, but also a clearer and better articulated understanding of what one does not know about the system. It leads to questions that need to be researched.

Due to time constraints, only a single day was available for consolidating the prototype scenario logics and engaging with relevant sources to find out what is known about the questions raised. It is quite possible that further iterations of the scenario logics are required, which is outside the scope of the current project.

Reaching consensus may require multiple workshops

If stakeholder buy-in is emphasized, a number of follow-up events to validate the scenario logics may be required to enhance the legitimacy of the scenario logics and narratives, and create ‘ownership’.

Experience with multi-country scenario exercises has shown that stakeholders will want to carefully examine the critical assumptions and could request for additional research on which to base their validation. They may also wish to consult their home office to get the required institutional backing. It is important not to hurry this process. The value of the scenario set is greatly enhanced when all stakeholders agree that they are plausible and valid. It may require additional validation events (often with a smaller group) outside the scope of the current project.

Additional policy insights are gained when using the scenarios

It is important to note that there is a difference between building and using the scenarios. Once the scenarios are completed and validated, they are used in follow-up ‘scenario thinking’ events.

The approach is to use the scenario set as backdrop to examine relevant policy questions. In the Nile context one can think of many different policy subjects. The scenario event identifies implications, risks, options, tickets to ride, things not to do, important actors, etc. The workshop concludes with a dialogue about insights gained, questions remaining, strategic directions to follow, and joint actions to take. The follow-up scenario thinking events are outside the scope of the current project.

How to communicate the insights gained to a wider audience?

Because of the highly interactive nature of the scenario process, only a relatively small group of people (not more than 25) can participate in the scenario building and scenario thinking events. Insights gained, therefore, need to be communicated to a wider audience. This has proved a challenge. Including ‘people with a network of influence’ – thus, people that other people listen to - in the scenario group is an effective way to achieve this purpose.

# Use of the Scenario Set

## What-If Applications

Scenarios can be used in many ways. Most applications are essentially “what if” applications that test policies, strategic decisions, or policy options against the scenario set. A key aspect in this exercise is that users/workshop-participants gain a sound understanding of the scenario logics, and assess the implications of the future developments and end-states. Subsequently, they could identify the available policy options. This thinking exercise generates insights and helps users to prepare for the developments in the external environment – as represented in the scenario set – that might occur.

Important in this context is to point out that such analysis must be applied to all scenarios generated. Scenarios must be used as a set. All scenarios are relevant and therefore worth considering. By using them as a set, the full range of uncertainty is taken into account.



## Selected Policy Insights

A selected set of tentative policy insights resulting from the scenario exercise are presented below.

1. The Nile is transforming from a natural to a regulated river, and benefits accrued from coordinated basin-wide management of the Nile waters are increasing.
2. Nevertheless, the national development agenda still dominates the basin-wide development efforts; hence, without coordination, water development efforts across the basin will probably be fragmented, sub-optimal, and occasionally against the interests of the fellow riparians.
3. Fact-on-the-ground such as hydro-infrastructure have proved a strong driver for issue-based cooperation; however, they do not necessarily encourage basin-wide cooperation or maintaining a basin-wide perspective.
4. At this point in time, therefore, a key challenge for the Nile basin countries is to maintain the basin-wide focus in order to realize the full potential of the shared water resources; this will require persistent leadership; the NBI institutions are the obvious candidate to provide this leadership.
5. There are many reasons why basin-wide coordination is difficult: 1) for some countries, the Nile basin is just a small part of their country, 2) coordinating with many actors is just difficult, 3) a basin-wide focus is not necessarily in the interest of some riparians, 4) it is difficult to quantify the basin-wide benefits of cooperation, 5) it requires a basin-wide mechanism for benefit sharing, 6) some countries simply do not have the government resources and capacity for basin-wide coordination, 7) it is difficult to maintain public support for this effort when the benefits of cooperation take years to materialize, etc.
6. Most governments will recognize the importance of coordinated water resources management within the context of the (sub-) basin in which they are located, and look for alternative arrangements in the absence of a functioning basin commission; Regional Economic Groupings (REGs) such as IGAD or the East African Community can substitute for the basin commission – and be an effective coordinator within their mandate area – but are probably not focused on maintaining the basin-wide perspective.
7. Similarly, in the absence of strong leadership that maintains the basin-wide focus, there is a persistent drive for the river-basin to fragment along (more) natural coordination units such as sub-basins; while this development is not necessary negative, potential benefits are lost in this setup; in the case of the scarce Nile resources (in relation to the large population), this is regrettable.
8. Ongoing population growth combined with autonomous socio-economic development will put unprecedented pressure on land and water resources; if water development is not properly coordinated and water is used inefficiently, tension over use of scarce water resources will probably rise;
9. Maintaining popular and political support for a basin-wide focus is a challenge because it is difficult for most people to see the benefits of basin-wide coordinated development; it requires a concerted and persistent media effort to explain the benefits of cooperation to a broad range of the basin stakeholders.
10. The prospect of climate change enhances the benefits of Nile cooperation since unilateral adaption responses will be more costly; while the effects of climate change are not expected by the horizon year of the scenario set, the loss a of cooperative framework could have much longer-term repercussions.

It is important to note that the above insights have not been reviewed by all workshop participants and therefore do not constitute collective insights.

# Proposed Follow-Up

Two distinct application areas are distinguished. The first concerns the immediate use of the scenario product – in its current state; “as it is” – to support the ongoing strategy development exercise of the NBI. The second application area is more broad and long-term, and is concerned with using the scenario set by a wide range of Nile stakeholders to inform their thinking regarding Nile cooperation.

Application Area 1

1. Conduct an internal and informal NBI scenario-thinking workshop – with a duration of 1 day, and conducted by a professional facilitator - to examine relevant policy questions (re. funding options, stakeholder involvement, communication strategies, investment programs, etc.) against the backdrop of the scenario set, with the aim to investigate options, implications, interests, etc; this exercise aims to encourage participants to question and subsequently enrich their metal models, and to test and discover robust strategies.
2. Prepare a concise report on the collective insights gained in this exercise.

Application Area 2

It is important to note that in this application area, the scenario set will be distributed to a wide range of stakeholders. Buy-in by all riparians in the final scenario product (logics and stories) is therefore critical. This can only be obtained through adequate consultation and feedback mechanisms. An additional iteration of the scenario logics, therefore, is required, followed by a validation event (possibly with a small group) in order to gain acceptance of the final product. The activities include:

1. Critical review and validation of the scenario logics and stories through a participatory process that includes all Nile riparians; buy-in by all riparians in the final scenario stories is essential;
2. Preparation of a comprehensive scenario booklet and associated presentation material;
3. Workshop to train scenario facilitators (optional);
4. Series of national and regional scenario thinking workshops – conducted by the national and on occasion international facilitators - to examine relevant policy questions (re. funding options, stakeholder involvement, communication strategies, investment programs, etc.) against the backdrop of the scenario set, with the aim to investigate options, implications, interests, etc; this exercise aims to encourage participants to question and subsequently enrich their metal models, and to discover possible areas of common ground and cooperation.

# Conclusions

* A scenario thinking exercise about the future of Nile cooperation has been successfully implemented. A group of some 25 stakeholders – including members of the Nile Technical Advisory Committee (Nile TAC) – participated in the scenario building workshop. The exercise has increased the appreciative understanding of the complex Nile cooperation context and issues among the participants. Key driving forces and uncertainties have been identified and analyzed, while the underlying causal structure has been mapped and captured in a set of scenario logics and stories.
* The scenario methodology – which is systematic, emergent, and participatory – has proved effective in conducting a rapid but comprehensive analysis of the issues and context related to the future of Nile cooperation. By securing the participation of Nile TAC members, diplomats, law makers, members of staff of the NBI Institutions, donor representatives and resource persons, the right balance between members with sectoral expertise and policy making responsibilities was secured.
* A set of 4 scenario logics was prepared and has been tentatively agreed upon by the scenario team members. This constitutes a joint tool for analyzing complex policy questions related to the future of Nile cooperation in a systematic and multi-stakeholder setting.
* To strengthen and capture the full benefits of the project, it is recommended to further review and validate the scenario logics and stories.
* Upon validation, the process results should be disseminated to a wider audience; to this effect, it is recommended to implement a facilitated process of scenario-based strategic conversations in the region. It will require producing a comprehensive package to communicate the scenarios to a broad audience. The recommended follow-up activities are described in chapter 6 of this report.

References

Kahane, Adam; Solving Tough Problems; Berret-Koehler Publishers Inc., San Francisco, 2007

Kahane, Adam; Transformative Scenario Planning; Berret-Koehler Publishers Inc., San Francisco, 2012

Schutte, Peter M.; Scenario Thinking: Accelerating Strategic Learning; 2005

Schutte, Peter M., Van der Heijden, Kees; Look Before you Leap: Key Questions before Designing Scenario Applications; Scenario & Strategic Planning, February/March 2000

Schwartz, P., The Art of the Long View – Planning for the Future in an Uncertain World; John Wiley & Sons, 1999

Van der Heijden, Kees; Scenarios, the Art of Strategic Conversation;

Annexes

Annex 1: Terms of Reference

Annex 2: Background Document

Annex 3: List of Participants

Annex 4: Workshop Agenda

Annex 5: Predetermined and Uncertain Elements

Annex 6: Scenario Logics

Annex 7: Scenario Stories

Annex 1: Terms of Reference

**Nile Basin Initiative**

**Scenario Construction: What the Nile Cooperation will be like 10 years from Now?**

**Description of Service**

**1.0 INTRODUCTION**

The Nile Basin Initiative (NBI) is a regional intergovernmental partnership that seeks to develop the River Nile in a cooperative manner, share substantial socio-economic benefits and promote regional peace and security. NBI was established on 22 February, 1999 by riparian countries and continues to be led by 10 Member States namely Burundi, DR Congo, Egypt, Ethiopia, Kenya, Rwanda, South Sudan, The Sudan, Tanzania, and Uganda. Eritrea participates as an observer. NBI was conceived as a transitional institution until the Cooperative Framework Agreement (CFA) negotiations were finalized and a permanent institution created.

Effective July 2012, NBI embarked on implementation of its five year strategic plan 2012 to 2016. An NBI Strategic Action Program II was prepared with specific interventions that would lead to realization of the Strategic Plan objectives. The first project under the new strategic action program, Nile Cooperation for Results (NCoRe), became effective in January 2013. The Project Objective is, “to facilitate cooperative water resource management and development in the Nile Basin.” This would be achieved through the provision of targeted technical assistance to the NBI member countries and broader stakeholders, to facilitate cooperation activities, improve integrated water resources planning and management, and identify and prepare pre-feasibility (and possibly, feasibility) studies of potential regional (or trans-boundary) investments.

As part of its NCORE activities, NBI is developing briefing/working papers on selected issues; the papers will help NBI to answer key questions to inform on going debates, promote mutual understanding and help build consensus around those issues. When well informed, the NBI stakeholders will not only provide strategic support to the NBI, but will also make informed decisions in relation to trans boundary water resources management and further strengthen the capacity of countries to cooperate.

Since the conception of the Nile Basin Initiative in 1999, remarkable changes have been observed in the Basin and the NBI institution, among which are;

The Nile Basin is witnessing observable improvement in both the extent and quality of cooperation among Member States. There is a sustained change from questioning whether a cooperative approach should be pursued, to asking questions on how cooperation could be pursued and whether the ‘perceived benefits’ will result in ‘tangible benefits’.

Member States continue to work together and are committed to the cooperation process even in the midst of a stalled political process. NBI’s ‘development track’ continues to operate smoothly focusing on technical issues and building practical channels for trans-boundary cooperation. Six of the 10 Member States have signed Cooperative Framework Agreement (CFA) and one country continues to freeze its participation in NBI activities.

Since the launch of NBI in 1999, the basin population has increased by over 100 million. The GDP of many Member States has been growing at impressive rates as well. These economic growth rates have entailed concomitant increase in demand for water, food and energy. In the context of the Nile Basin, where majority of upstream countries have embarked on rapid economic growth, delays in implementing water resources investments means delays in meeting demands of their growing economies and populations. This, in turn, can lead to an increasing number of major water resources investment projects (e.g. dams, power plants) planned and implemented unilaterally by individual riparian states. Furthermore, there is likelihood that inherent slow pace of realizing development projects through cooperation could lead to potential lack of interest by countries.

NBI centers have grown into strong regional institutions, providing an all-inclusive platform for the riparian countries to deliberate on the management and utilization of the common Nile Basin water resources; with multiple mechanisms for negotiation, dialogue and discussion. However the transitional nature of NBI portraying it as a temporary institution is counterproductive to its role of raising trust and building confidence among Member States, both of which are key ingredients to fostering all-inclusive cooperation. In addition, institutional sustainability remains a key challenge; with the Nile Basin Trust Fund closing by Dec 2014 and Member State contributions not yet in a position to sustain the institution core costs.

The long term financing mechanism, the Nile Basin Trust Fund, dedicated to the Nile Basin Initiative’s program of work is closing in 2014

It is against this background that the thought of what the Nile cooperation will be like 10 years from now continues to linger in many peoples’ minds. One of the key questions is how the future will unfold given all the changes that are happening in the Nile Basin? Would the NBI institution be rendered irrelevant and sidelined in the wake of these changes in the basin? Addressing these questions would help work more proactively towards realizing a future Nile Basin citizens want, a future where: the Nile Basin water resources are developed and managed cooperatively by riparians to meet the development aspirations of basin inhabitants.

NBI would like to undertake an in-depth analysis of these and other complexities in the Nile Basin and develop plausible future scenarios of the Nile cooperation 10 years from now. While the working paper will not attempt to resolve any outstanding issues, it will stimulate debate, promote mutual understanding and hopefully build consensus on a “pathway” to what Nile cooperation will look like 10 years from now. In addition, this exercise with cover the technical track of cooperation, and as is practically possible avoid the political or diplomatic tracks (including issues associated with the CFA). This will be done through a scenario building process.

Scenario building is a way of approaching the future and is increasingly being used as a strategizing tool. It brings people together from across the spectrum to creatively think about the future of their organization. The process is credible, informal and reflective. And this is very important for the Nile cooperation now more than ever before considering the changes in the basin.

**Purpose of the consultancy**

The purpose of this consultancy is to facilitate a Scenario building process for the Nile cooperation in the next 10years. The scenarios therein will stimulate debate, contribute to mutual understanding and promote agreement and consensus on the best pathway and future shape of the Nile cooperation.

**Scope of work**

The assignment will be implemented in two phases: Phase one will involve developing a background paper on scenario construction as a strategizing tool and its relevance to the Nile cooperation and the overall Nile Basin context now more than before given the complex nature of the Nile Basin, the social, political, economic and environmental aspects of the Basin, the changes that have taken place in the past and the different perspectives of the basin States, citizens and friends of NBI including Development Partners as well as. The paper will form the main input into phase 2.

Phase 2 will involve facilitating a consultative workshop among key stakeholders (a group of experts from very diverse backgrounds and with different perspectives but with a key stake in the Nile and the Nile cooperation and encourage debate, consultations, brainstorming and reflections on the best pathway into Nile cooperation. Experts may include NBI governance, NBI staff, ex officials of the NBI, scholars, development partners, champions, politicians, business people and researchers among others.

**Key Tasks include;**

* Undertake consultations (perspectives, arguments, experts, etc) among key NBI stakeholders: NBI staff, Governance, Donors and selected professionals; thereafter develop work plan
* Develop a 10-15 page background paper on scenario construction as a strategy development tool and its relevance to the Nile cooperation and NBI context
* Develop a concept note for the workshop
* Together with NBI team, identify workshop participants; a multi-disciplinary team of experts; people who are respected in their fields, open minded not holding any positions and representative, ensuring that all important perspectives on the issues are represented
* Facilitate a scenario construction workshop to develop scenarios and their messages
* Produce a report on workshop proceedings
* Share draft and generate comments
* Incorporate the comments and finalize the report

**Expected output**

* Inception report
* Background paper 10-15 pages covering the scenario building as a strategizing tool and its relevance to Nile cooperation
* Workshop concept note
* Workshop report covering workshop proceedings and emerging storylines

**Duration**

| Activity | Number of days |
| --- | --- |
| Inception report | 3 |
| Undertake consultations among key NBI stakeholders: NBI staff, Governance, Donors, professionals and the public, Together with NBI, identify workshop participants, establishing the core scenario team | 5 |
| Develop a 10-15 page background paper on scenario construction as a strategy development tool and its relevance to the Nile cooperation and NBI context | 10 |
| Develop workshop concept note | 2 |
| Facilitate workshop to develop scenarios and their key messages | 5 |
| Produce workshop report | 5 |
| Total | 30 days |

The contract period for this consultancy will extend from about June 23rd 2014 for an estimated 30 man days spread over 2 and 1/2 months to 23th October, 2014.

**Implementation arrangements**

The consultant shall enter into contract with the Nile Basin Secretariat and shall work under the direct supervision of the Head, Strategic Planning and Management, who shall provide technical guidance and will be responsible for managing the consultancy on a day-to-day basis. This assignment will be carried out at the Nile Sec in Entebbe, Uganda and the consultant’s home.

Annex 2: Summary of the Background Paper

SUMMARY OF THE BACKGROUND PAPER

1 Setting the Scene - Nile Cooperation and the NBI

The Nile is shared by 11 countries. The riparian communities are facing multiple and complex development and environmental challenges, and ongoing population growth puts unprecedented pressure on scarce water resources. Concerted efforts are ongoing to strengthen cooperation among the Nile riparians, and important progress has been made since the establishment of the Nile Basin Initiative (NBI) in 1999. Examples are:

* The Nile Basin is witnessing observable improvements in both the extent and quality of cooperation among member states; the benefits of cooperation are no longer questioned – what is being discussed is the shape of cooperation and how it could be pursued;
* NBI centers have grown into strong regional institutions that provide an all-inclusive platform for the countries to deliberate on the management and utilization of the common Nile water resources, and for information exchange;
* Member states continue to work together and are committed to the cooperation process even in the midst of a stalled political process; NBI’s development track continues to operate smoothly focusing on technical issues and building practical channels for transboundary cooperation.

NBI Vision: “to achieve sustainable socio-economic development through the equitable utilization of, and benefits from, the common Nile Basin water resources”

At this point in time, however, the shape and dynamics of Nile cooperation is subject to a number of uncertainties. Will the international donor community continue its current level of support to the regional NBI centers? Can financing be mobilized for the large infrastructure investment projects that will increase the benefits accrued from the Nile waters? Will policy harmonization among the riparian states progress rapidly enough to facilitate coordinated and integrated management of the Nile waters? When can the NBI centers advance from transitional to permanent status?

The above questions represent just a few of the uncertainties facing Nile policy makers when they discuss how to strengthen and deepen shared management of the joint Nile waters.

When looking at longer time-frames – say 10 years – ignoring uncertainty in a dynamic environment is not effective, nor is it justified. Here, scenarios have proved effective. Scenarios are sets of internally consistent and equally plausible stories that describe how the future *might* unfold. They thus explicitly acknowledge uncertainty. By examining predetermined and uncertain elements in the external environment, they gradually get into view of what is driving the ‘system’ and the underlying structural relations. This understanding is critical for making informed decisions.

NBI has initiated a scenario project to examine the future of Nile cooperation. This background paper has been prepared to introduce the participants of this exercise to the scenario concepts and methodology. However, before we get there, we first have to discuss what exactly we expect from this scenario-thinking exercise.

2 The Organizational Objective

The purpose of the exercise is to develop plausible future scenarios of Nile cooperation in the horizon year 2024. It represents a 10-year window that extends well beyond typical project cycles and the planning of technical programs, but clearly falls within the time frame of most investment decisions or the intended lifespan of the regional NBI centers.

As discussed in chapter 1, the Nile context is subject to considerable uncertainties that may change the shape and dynamics of Nile cooperation in quite fundamental ways. Faced with this uncertain environment, effective medium-term analysis and future thinking can provide valuable insights to managers and decision makers on how to navigate this future landscape. What is required is:

* A clear understanding of the driving forces that shape the future landscapes; examples of driving forces in the Nile context include donor funding and infrastructure investments, but there are many others;
* An appreciation of the different pathways in which these futures may develop, based on the interplay of the key driving forces; it results in a number of logical stories (i.e. scenarios) about how Nile cooperation could unfold;
* An assessment of the end-states of these futures, and an appreciation of their desirability; how will future Nile cooperation look like in each of these stories? And do we like it?
* An evaluation of the (external and internal) risks we face in these possible future landscapes, and ways how to mitigate them; obvious examples of external risks are climate change, global financial stability that affects the flow of funds (investments) to the Nile region, or price shocks in global food markets;
* An analysis of where we can influence the course of events with the aim to arrive at more desirable future outcomes;
* An appreciation of the options at our disposal to adapt to the possible future landscapes and mitigate the undesirable developments;
* Tools that enhance our capacity to perceive change, and help us to respond quickly when a direction of change becomes evident; the value of these tools should not be underestimated: ‘time’ is a valuable resource when having to adapt to new challenges.

But while the above outputs are essential, they are not enough. More is needed. Action to respond to new challenges requires alignment of views among the key actors. Experience has shown time and again that non-coordinated and non-integrated responses by diverse actors are usually ineffective and – in most cases - do not lead to the desired outcome. Sometimes they are even counter-productive. Thus a level of consensus is needed among decision makers on the most effective ways to navigate and shape the future pathways. Therefore, an additional objective of the scenario exercise is:

* Create an alignment of views among key stakeholder and actors on how the uncertainties might affect their collective future, and what to do to prevent undesired outcomes; this is particularly important in the multi-national Nile context where parties have different interests as well as different views on what governs shared natural resources management.

Dialogue-based processes such as scenario-thinking have proved effective in achieving the above outputs when dealing with highly complex multi-stakeholder problem situations. How it works is discussed in the next two chapters.

3 Scenario Thinking

This chapter aims to introduce the concepts of scenario thinking. It discusses why thinking about the future matters, and how scenario planning/thinking (the terms are often used interchangeably) can assist in this endeavour. Along the way, we define what scenarios are, and what they are not. We briefly touch on the philosophical background of scenario thinking, and discuss the process results that can be expected when engaging into a scenario project.

3.1 Future Orientation

The future is inherently uncertain. An Arab proverb says “he who predicts the future lies even if he tells the truth”. Nevertheless, most decision makers are aware of the value of thinking about the future. They realize that sitting back and waiting for the future to happen is not effective. At some point in time, decisions will have to be made that set the direction of their organization or country - and commit its resources - for many years to come. The long-term success of these decisions depends on the competencies of the decision makers to understand the future landscape in which their organization has to operate.

“At times, the world can look so complex and unpredictable that it becomes hard to make decisions. Scenario building is a discipline for breaking through this barrier.” *Ged Davis, Managing Director of the World Economic Forum’s Centre for Strategic Insights*

The need for a focus on the longer term is most obvious in times of accelerated change. This is clearly the case in the Nile basin. Steady growth of the population, a growing middle class, and rapid urbanization lead to more demand for water, energy, and food, and unprecedented pressure on natural resources. Competition over scarce land and water resources is increasing at local, national, and regional level. Inter-linkages between the water-energy-food sectors are becoming more pronounced. The complexities of managing the growing Nile economies – with a growing number of economic actors, connections, and interdependencies – are rising almost exponentially. Further, climate change may alter resource availability. It makes managing the scare and shared Nile waters a highly complex undertaking subject to considerable uncertainties. The notion of change in the Nile basin is certain – its exact form still unclear.

It is obvious that we need to prepare for this changing environment. However, in many cases immediate and ‘day-to-day’ problems overtake thinking about the future: ‘the urgent drives out the important’. It is a situation of all times and witnessed all over the globe. But slow reaction to change can be risky. Suddenly we find ourselves ill-adapted to the new environment without the policies and tools to adequately respond to the new challenges. It could affect the effectiveness of the organization or slow down the development path of the country.

Therefore, in a highly dynamic environment it makes sense to spend some time thinking about how the future landscape may look like, develop the ability to identify and interpret changes and possible discontinuities, and prepare for the changing context or even see if we can change the course of events.

The question is how to do this. We stated before that the future is inherently uncertain. No matter how we try to make reliable forecasts, things almost always turn out differently in often unexpected ways. How can an organization plan for the future when they do not know what the future will bring? The scenario tool has proved effective in facilitating this forward thinking process. Rather than trying to predict the future, scenarios portray multiple possible futures which can (and must) be considered. They are based on a systematic analysis of a complex array of driving forces that influence the future environment. The purpose of the exercise is to help policy makers think about the future in a structured and efficient way, taking into consideration the changing environment in which they are operating. It is important to always keep in mind that the ultimate aim is not to predict the future, but to take better informed decisions.

3.2 What Are Scenarios?

Definition

Scenarios are stories about the future. The name comes from the theatrical term “scenario”- the script for a film or a play. Because the future is inherently uncertain, it is not possible to develop just one future or story. Rather, there are different possible and plausible futures that can occur, and that we therefore have to take into consideration or prepare for. Hence scenarios are sets of internally consistent and equally plausible stories that describe how the future *might* unfold. They are based on plausible evolutions from the current situation, depending on how the major driving forces develop and interact. Thus scenarios are not predictions: they identify - to the best of our ability - what *might* happen.

Scenarios normally have their foundation in the most important driving forces in the “contextual environment”. It concerns that part of the environment which has important repercussions for the organization (or country) but in which it has little or no influence. In the Nile region, factors in the contextual environment include socio-economic developments, climate change, global food prices, geo-political developments, etc, but also development-cooperation policies in donor countries.

The “transactional environment” is that part of the environment in which the organization (or country) is a significant player, influencing outcomes as much as being influenced by them. This is schematically depicted in the figure below. While elements of the transactional environment can be part of the scenarios as well, scenarios mostly play in the external (contextual) world.

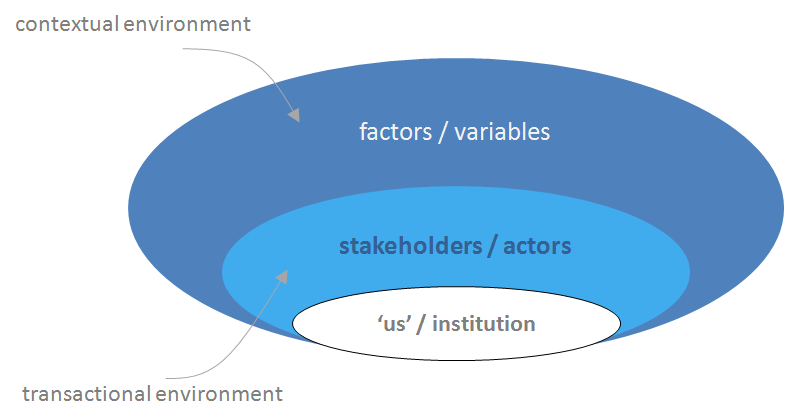


Figure 1: Environment categories (source: Kees van der Heijden)

What Scenarios Are Not

*Scenarios are not predictions*: because the future is in fact ‘unknowable’ there is not one story but there are several. Developing one story would come close to making a prediction, normally representing ‘more of the same’ (or business as usual) or some form of desirable or ‘official’ future. Scenarios build on best insights about the most important and consequential uncertainties and describe how the future *might* unfold. We develop *multiple* scenarios to account for possible different evolutions from the present as a function of how the major driving forces interact. As a set, they are intended to represent the range of possible future developments of the wider context.

*Scenarios are not extrapolations or forecasts*: some phenomena exhibit more inertia while other elements are more volatile. It is obvious that the time scale is an important parameter when differentiating between predetermined and uncertain elements. In the Nile Basin, for instance, a growing population is a predetermined element in the near and mid-term future. Climate change is also a predetermined, but the direction and magnitude of change are uncertain.

The more we move away from the present, the more uncertain the future becomes. This is illustrated in the below figure. Forecasts are suitable for the near future, when the ongoing correlation between the environmental variables persists. However, at some point the uncertain elements start dominating the predetermined ones, and making forecasts becomes dangerous. Nevertheless, there is still underlying causal structure in events, and it is possible to develop logical pathways of the future through chains of cause and effects. In this zone – with a level of predictability but also considerable uncertainty – scenarios are a suitable tool for exploring the future.

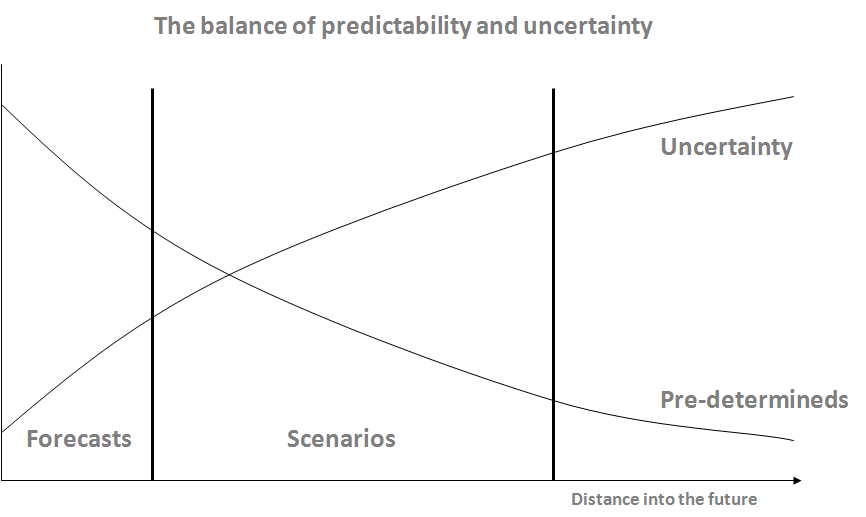


Figure 2: Beyond projections (source: Kees van der Heijden)

*Scenarios are not science fiction*: they have to be plausible. While a good scenario set has to be challenging and facilitate ‘new insights’, it cannot be outside the realm of the possible lest it will be rejected.

*Scenarios are not about the organization*: they are stories about the external environment in which the organization has to operate.

3.3 How Are Scenarios Used?

The strategic task of decision makers is to ensure that the organization or country is successful, not only in the present but notably also in the future. Therefore, clearly, “the future” should feature highly on the agenda. Strategic management involves formulation of major goals and initiatives (“setting the direction”), based on an assessment of resources, and current and anticipated problems, constraints, and opportunities. How do scenarios assist in this process?

* ‘What if?’ thinking

By portraying multiple plausible futures, scenarios explicitly put “uncertainties” on the agenda. A scenario building exercise sets out to get a clear insight in the most important uncertainties in the external (contextual) environment, and how these uncertainties may play out in the future. Using the scenario set as backdrop, it then systematically thinks about the question “what would we do if…?”. This process helps sensitize parties on important issues and prepare for the future by considering consequences, risks, and generating new options. The outcome of this process is not a ‘best strategy’ in the form of a plan, but a set of robust options and a state of preparedness that allows the organization to anticipate and adjust to future developments.

We cannot predict, and therefore we should not try. The only relevant discussions about the future are those where we succeed in shifting from the question whether something will happen to the ‘question: *“what will we do if it happens” (*Arie de Geus*)*

* Generating Options for the Future

A very productive exercise is to use the scenario set as backdrop for examining relevant policy questions. In essence, this is an outside-in event. Thinking starts in the outside world (the contextual environment) by ‘walking through’ the scenario stories and assessing their implications, challenges, and possible responses. It leads to a set of options (what ‘to do’, and what ‘not to do’) identified to mitigate risks and capture opportunities.

It is important to note that all scenarios are equally plausible. We cannot choose one scenario that we prefer for whatever reason. It implies that we have to evaluate the options against all scenarios. It will turn out that some options perform favourably in one scenario but poorly (of even harmful) in others. The aim is to identify robust options that perform well in all scenarios. To this end, a scenario-option matrix is developed that values the options against all scenarios, and appreciates how and when they should be exercised. This overview supports the development of strategic direction and leads to more robust strategies and plans

4 Implementing the Scenario Project

This chapter describes the scenario development process and how the scenario set is used to illicit insights about how to prepare for the future. The text differentiates between building and using scenarios, and discusses the different process gains obtained from each type of exercise.

4.1 Scenario Development

The systematic scenario development methodology builds strongly on the process employed by the Global Business Network and codified by Kees van der Heijden (see references). The method is robust and proven, and involves a rigorous analysis of the driving forces that affect the problem situation. A number of scenarios – typically 4 but sometimes less – are developed reflecting the critical uncertain factors that dominate future developments in the external environment. Scenarios need to emphasize plausibility, and strike a balance between relevant and challenging in order to be effective. It is important to always remember that scenarios act as a (temporary) scaffolding to support a thinking exercise on implications and how to adapt to the new realities. Thus, it is not the scenarios that matter, but the insights (and ‘better decisions’) gained through the scenario process. Scenario development and use is schematically depicted in the below figure.

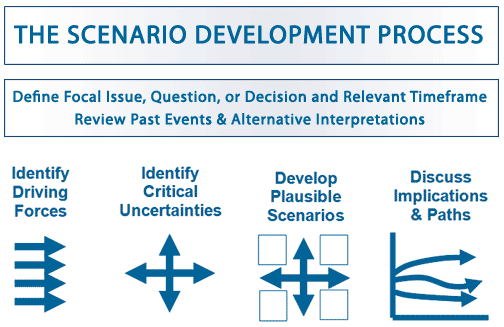
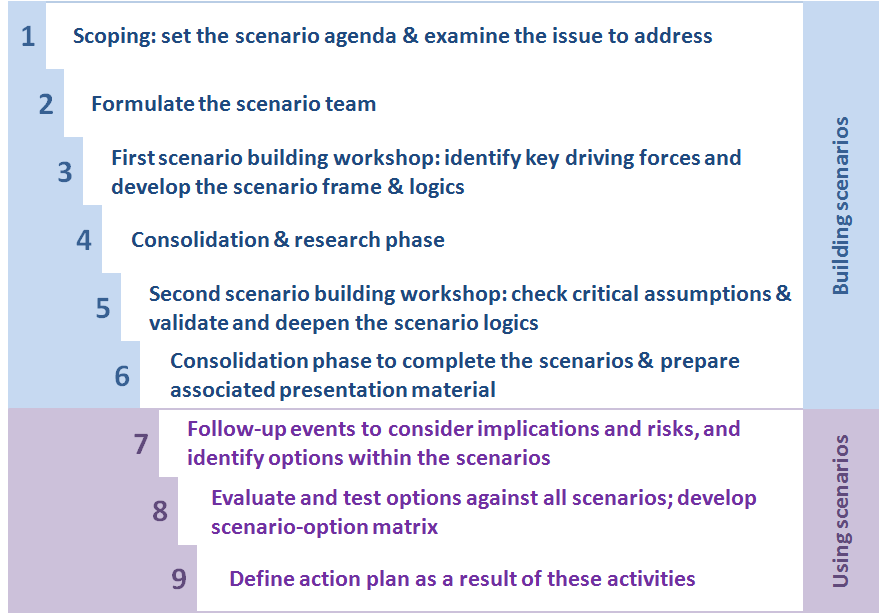


Figure 3: Scenario development and use (source: internet)

When designing a scenario project, the below points have to be taken into consideration:

* A Scenario building/thinking exercise engages decision makers into a strategic conversation. The interactive and participatory setup of a scenario exercise is critical to the success of a scenario process.
* Scenario thinking aims to achieve process gains that are associated with rapid learning processes – both individually and collectively – when engaging into systematic thinking about the future, in a structured and multi-stakeholder process.
* For a scenario project with the explicit purpose of promoting consensus on how to respond to future challenges, inclusiveness and legitimacy are key requirements.
* Creative and ‘out-of-the-box’ thinking is encouraged by taking people out of their environment or context.
* A key challenge for scenario thinking is how to communicate the process gains and insights to a (much) wider audience.

Figure 4 below presents the setup of a typical scenario project.



Steps 1 to 6 are concerned with building the scenarios. The schematic above involves two scenario building workshops but sometimes further iteration is needed to validate and deepen the scenario logics and narratives. This can occur in highly complex environments where follow-up research is required to check the critical assumptions, or more time is needed to better understand the cause-event relations that drive the system.

Further iteration may also be needed if stakeholder buy-in is emphasized. In particular in a multi-country scenario exercise, experience has shown that stakeholders will want to carefully examine the critical assumptions and could request for additional research on which to base their validation. They may also wish to consult their home office to get the required institutional backing. It is important not to hurry this process. The value of the scenario set is greatly enhanced when all stakeholders agree that they are plausible and valid, and ‘ownership’ is created.

4.2 Scenario Development and Scenario Use

As indicated in figure 4, we make a distinction between the activities of building the scenarios on one hand, and the use of scenarios on the other. There are some variations on this theme. Sometimes use is made of externally developed scenarios (or variations there-of), or an internal team develops scenarios for use by others within the organization.

The point is that the robust scenario building process represents a rapid learning process for the participants – both individually and collectively – that typically leads to a much better understanding of the external environment and causal system that drives the problem situation. Scenario building is normally experienced as insightful for the participants.

However, the original scenario group is usually quite small. It points to an inherent limitation of the scenario process: only a relatively small group (approximately 20 people) can participate in the original scenario building exercise. A key challenge for scenario thinking, therefore, is how to communicate the process gains and insights to a wider audience.

Annex 3: List of Participants

|  |  |
| --- | --- |
| NILE TECHNICAL ADVISORY COMMITTEE | |
| BURUNDI | D. R. CONGO |
| ASTERE NINDAMUSTA  Conseiller au Département de l’Hydrométéorologie  Institute Géographique Burundi  P O Box 34  Gitega  Burundi.  Tel: +257-224-022-75  Cell: +257-794-319 39  E-mail: [nindamutsaastere@yahoo.com](mailto:nindamutsaastere@yahoo.com) | MUKONKOLE MAYELE MARIE ROSE  Head of Division/ Water Resources Directorate  Ministry of Environment  BP 12348 KIN 1  Kinshasa – Gombe  Q. Kinzazi No. 35 B  Commune de Matere  Kinshasa.  D. R. Congo.  Tel: + 243-898938677  E-mail: [mayelerose@yahoo.fr](mailto:mayelerose@yahoo.fr) |
| KENYA | RWANDA |
| CHRISPINE OMONDI JUMA  Ministry of Environment, Water and Natural Resources,  P. O. Box 49720 - 00100,  Maji House, Ngong' Road,  Suite 405, Tel +254 02 271 61 03 Ext. 42190  Mobile +254 0722 79 12 30  NAIROBI, Kenya  E-mail : [cojuma2004@yahoo.com](mailto:cojuma2004@yahoo.com) | MUKIZA ODILO MR  Water Resources Engineer  Ministry of Natural Resources  P O Box 3502 Kigali, Rwanda  Tel. 250 788418945  Email: [odilonrwa@yahoo.com](mailto:odilonrwa@yahoo.com) |
| SOUTH SUDAN | SUDAN |
| ALIER OKA BULLEN NGONG  Ag. Director General  Ministry of Water Resources & Irrigation  Republic of South Sudan  Juba, South Sudan  +211 955608022  Email: [alieroka@yahoo.co.uk](mailto:alieroka@yahoo.co.uk) | PROF. SEIFELDIN HAMAD ABDALLA  Head of the Technical Water Resources Organ  Ministry of Water Resources and Electricity (MWRE)  & NBI Focal Point of Sudan  P. O. Box 878 Khartoum, Sudan  Mobile: + 249 912152563  Fax: + 249 183 783221  Email: [seifeldin\_eltwaim@yahoo.com](mailto:seifeldin_eltwaim@yahoo.com) |
| MERAJI MSUYA  Former Executive Director NBI  Tel: +255 (007) - 0754 373475  E-mail: [meraji0302@hotmail.co](mailto:meraji0302@hotmail.co) |  |

|  |  |
| --- | --- |
| RESOURCE PERSONS | |
| HELLEN NATU  Nile Basin Discourse  E-mail: [hnatu@nilebasindiscourse.org](mailto:hnatu@nilebasindiscourse.org) | Dr. Malte Grossmann  GIZ Representative for NBI,  Kampala.  E-mail: [malte.grossmann@giz.de](mailto:malte.grossmann@giz.de) |
| Onek Joyce  Head Namera Department  Ministry of Foreign Affairs  Kampala  Uganda.  Cell phone: + 256-772-453-433  E-mail: [joyce.onek@gmail.com](mailto:joyce.onek@gmail.com) | Dr. Amel Azab  Manager  Nile Basin Capacity Building Network (NBCBN)  Hydraulics Research Institute (HRI) 13621 Delta Barrages, Cairo, Egypt Tel: +202-42188252  Mobile: +20-10-3874571  E-mail: [a\_azab@nbcbn.net](mailto:a_azab@nbcbn.net) / Website: [www.nbcbn.com](http://www.nbcbn.com/" \t "_blank" \o "blocked::http://www.nbcbn.com/) |
|  | Mr. Benjamin Ssekamuli – NELSAP  E-mail: [bssekamuli@nilebasin.org](mailto:bssekamuli@nilebasin.org) |
| Hon. John Ken Lukyamuzi  Member of Parliament  Lubaga South  Kampala.  Uganda.  Tel: +256-752-694-597  E-mail: [kenlukyamuzi@yahoo.com](mailto:kenlukyamuzi@yahoo.com) | Prof. Afunadwla Oweyegha  Consultant  Kampala.  Uganda.  Tel: +256-782-555222  +256-0701-113390  E-mail: [afunaduula2000@yahoo.co.uk](mailto:afunaduula2000@yahoo.co.uk) |
| NILE-SEC | |
| JOHN R. NYAORO  Executive Director  Nile Basin Initiative Secretariat, Entebbe  +256-414-321320  E-mail: [jnyaoro@nilebasin.org](mailto:jnyaoro@nilebasin.org) | DOROTHY KAGGWA  Head Strategic Planning and Management  Nile Basin Initiative, Entebbe  +256-414-321424  E-mail: [dkaggwa@nilebasin.org](mailto:dkaggwa@nilebasin.org) |
| ABDULKARIM SEID  Head, Water Resources Management  Nile Basin Initiative Secretariat, Entebbe  +256-414-321424  Cell phone: +256-757-396804  Fax: +256-414-320971  E-mail: [aseid@nilebasin.org](mailto:aseid@nilebasin.org) | MOHSEN ALARABAWY  Regional Water Resource Management Specialist  Nile Basin Initiative  Entebbe  Cell: +256-782-234-727  E-mail: [malarabawy@nilebasin.org](mailto:malarabawy@nilebasin.org) |
| WILLIAM TARO ODUK  Head Finance & Administration  Nile Basin Initiative Secretariat, Entebbe  Cell: +256-755-361-260  E-mail: [woduk@nilebasin.org](mailto:woduk@nilebasin.org) | TOM WAAKO  E-mail: [twaako@nilebasin.rg](mailto:twaako@nilebasin.rg) |
| FACILITATORS | |
| BART HILHORST | SIMON THUO |

Annex 4: Workshop Agenda

Nile Basin Initiative – Scenario Project on the Future of Nile Cooperation

(Entebbe, 8-12 Sep 2014)

Draft Annotated Agenda

Monday 8 September 2014

08:45 – 09:00 Registration

09:00 – 09:15 Welcoming remarks by the Executive Director of the NBI

09:15 – 09:30 Self Introductions of the Workshop Participants

09:30 - 10:00 Scenario Project on the Future of Nile Cooperation

*An introduction into the project and an overview of its objectives, deliverables, and timeline*

10:00 – 10:15 Workshop Rules

10:15 – 10:45 Introductory Presentation on Scenarios & Workshop Program

*An introduction into scenario thinking and its various applications*

10:45 – 11:15 Coffee /Tea Break

11:15 – 11:45 Input Presentation

*Presentation of the results of the interviews*

11:45 – 12:15 Intro: Scope and Generation of the Scenario Variables

*A clarification of predetermined and uncertain elements in relation to the time horizon*

12:15 – 13:00 Group Work (part 1): Predetermined Elements

*Identifying predetermined elements in the Nile context*

13:00 – 14:00 Lunch

14:00 – 14:30 Group Work (part 2): Predetermined Elements

14:30 – 15:30 Group Work (part 1): Uncertain Elements

*Identifying uncertain elements in the Nile context*

15:30 – 16:00 Coffee / Tea Break

16:00 – 17:00 Presentation and Discussions

17:00 Reception

Tuesday, 9 September 2014

09:00 – 09:15 Where Are We?

*Review of the results of day 1 and presentation of the program for day 2*

09:15 – 09:30 Intro: Clustering Uncertainties

09:30 – 10:30 Group work: Clustering Uncertainties and Discussing Possible Outcomes

*Aggregate uncertainties in a number of distinct clusters and assess possible outcomes.*

10:30 – 11:00 Presentations and Discussions

11:00 – 11:30 Coffee / Tea Break

11:30 – 12:45 Plenary: Integrate Group Results

12:45 – 13:00 Intro: Finding the Key Driving Forces and the Uncertainty Impact Matrix

13:00 – 14:00 Lunch

14:00 – 15:15 Group Work: Finding the Key Driving Forces

*Identify the key driving forces on the basis of impact and predictability.*

15:15 – 15:45 Coffee / Tea Break

15:45 - 16:15 Group Presentations on Driving Forces & Plenary Discussion

16:15 – 17:00 Plenary: Integrate Group Results and Determine Scenario Framework

*Agree on the main factors that define the two-by-two scenario matrix*

Wednesday, 10 September 2014

No program; the core scenario team will prepare draft scenario logics based on the two-by-two scenario matrix and other input received

*Thursday, 11 September 2014*

09:00 - 09:30 Review of workshop results (8-9 September) and program for the next two days

*A brief review of the results from the first two workshop days*

09:30 – 10:15 Tentative Scenario Logics

*Presentation of the tentative scenario logics and critical assumptions*

10:15 – 11:00 Group Work: Critical Assumptions

*Review the critical assumptions*

11:00 – 11:30 Coffee / Tea Break

11:30 – 12:15 Plenary: Presentations and Discussion

*Agree on the validity of the critical assumptions*

12:15 – 13:00 Group Work (part 1): Review of Scenario Logics - Scenario 1

*A critical review of scenario logic 1*

13:00 – 14:00 Lunch

14:00 – 14:45 Group Work (part 2): Review of Scenario Logics– Scenario 1

*A critical review of scenario logic 1 (continuation)*

14:45 – 15:30 Plenary: Presentation and Discussion

15:30 – 16:00 Coffee / Tea Break

16:00 – 17:00Group Work: Review of Scenario Logics - Scenario 2

*A critical review of scenario logic 2*

*Friday, 12 September 2014*

09:00 – 09:15 Where Are We?

*Review of the results of day 4 and presentation of the program for day 5*

09:15 – 10:00 Plenary: Presentation and Discussion (regarding scenario 2)

10:00 – 11:00 Group Work: Review of Scenario Logics – Scenario 3

*A critical review of scenario logic 3*

11:00 – 11:30 Coffee / Tea Break

11:30 – 12:15 Plenary: Presentation and Discussion

12:15 – 13:00 Group Work: Review of Scenario Logics – Scenario 4

*A critical review of scenario logic 4*

13:00 – 14:00 Lunch

14:00 – 14:45 Plenary: Presentation and Discussion

14:45 – 15:30 Group Work: Scenario Implications and Challenges

*Using the draft scenario logics as backdrop, assess implications, risks, challenges, options, etc.*

15:30 – 16:00 Coffee / Tea Break

16:00 – 16:30 Plenary: Brief Presentation and Discussion

16:30 – 17:00 Plenary: Insights, What Did We Learn?

*Discuss and exchange insights gained*

17:00 – 17:15 Next Steps

17:15 Closure

Annex 5: Predetermined and Uncertain Elements

Predetermined Elements (in a 10-year time window, with horizon year 2024)

Population growth

Oil extraction in riverine areas

More revenue from oil extraction

Climate change (change is predetermined, the direction of change is uncertain)

Improved technology

Better communication

Economic integration

Power interconnectors completed

Positive trends in agriculture in the Nile basin (because of GMO, externally supplied fertilizers and agricultural inputs)

Continued involvement development partner (the level of involvement is uncertain)

World Bank engagement (the level of engagement is uncertain)

Water resources management and development challenges

Increased use of groundwater

Environmental management challenges

Permanent institution

Cooperation among Nile countries on water resources issues

Improved trade links

Implementation of investment projects

Access to new funding from natural resources extraction

“New facts” on the ground (meaning completion of facilities such as Rusumo, GERD, the power interconnectors, etc)

Funding from ‘new’ Donors such as China, India, Qatar, etc (in agricultural and dam development projects)

More national funding for water resources development and water resources management

Tangible benefits of cooperation (but not of ‘basin-wide’ cooperation)

Absence of adequate information

Uncertain Elements (in a 10 year time window, with horizon year 2024)

Level of economic growth

Adoption improved technology

Regional (political) integration

Institutional capacity (to enable cooperation; comparable capacity among countries):

Agreed upon legal framework

Strong regional platform for Nile cooperation

Availability of funding

Data and Information sharing

Governance

Food security: ability to grow food within the basin

Political regional stability

Development partner involvement – funding

Coordinated management of water resources infrastructure

Food security: ability to grow adequate quantities of food within the basin

Donor funding

Policy harmonization

World Bank engagement - funding

New Facts on the ground

Bilateral conflicts- also on issues not concerned with Nile waters

Realistic assessment of future national water needs

Mechanisms to speed up investments

Visionary leaders who maintain the Nile basin focus

Strong NBI leadership

Weak NBI

Political instability in individual Nile countries

Expanded NBI mandate

Benefits of cooperation: Quantified, tangible, and equitable benefit to all

Commitment of Leadership at all levels: with respect of ownership, readiness to change

Proliferation of hydraulic infrastructure: development on the ground becoming a reality

Strong and successful NBI: with clear mandate and responsibility, role in resources mobilization

The role of the non-state actors: Civil Society and private sector can play role in investment

Interest of new stakeholders in the basin: non-traditional partners

Inclusiveness of cooperation in the basin

Honoring the obligation to conserve or maintain the basin

Commitment of (development) partners

Financial limitation on part of the development partners: due to financial crises

Strong legal foundation: Permanent institutional mechanism

Involvement of decision makers: High level political decision making, political good will

Public perception about benefits of cooperation

Being able to maintain the “One Nile” policy

Annex 6: Scenario Logics

