



THE REPUBLIC OF SOUTH SUDAN

## **THE PRESIDENCY**

OFFICE OF THE MINISTER

THE SUDD WETLANDS AND THE WHITE NILE WATER RESOURCES  
DEVELOPMENT AND MANAGEMENT INITIATIVE  
(SWWDMI)

Report on the

**PUBLIC AWARENESS AND CONSULTATION FORUM**  
**Held from 10-14 July 2022**

Under the Theme

**“No Life Without Water: Develop and Manage the White Nile Water  
Resources and the Sudd Wetlands Sustainably.”**

Submitted to

**His Excellency General Salva Kiir Mayardit**  
**President of the Republic of South Sudan**

**Wednesday, July 27, 2022**







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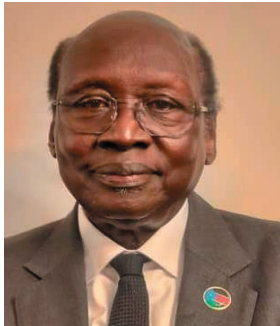
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## South Sudan Topographic Map: Water Bodies



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## Foreword



This report was compiled by the Secretariat and Editorial Team of the Sudd Wetlands and the White Nile Water Resources Development and Management Initiative (SWWDMI), led by the Chairperson, Mr Akoc Akuei Manheim, deputised by Mr David John Kumuri, following a five-day public consultation and awareness on the dredging initiative and other mechanisms to sustainable development and management of the Sudd wetlands and the White Nile waters. The public consultations were commissioned by the

Office of His Excellency, the President of the Republic of South Sudan with two main purposes:

1. As a commitment to informing and gauging views from the great citizens of South Sudan on important issues relating to the White Nile, its tributaries, and the Sudd Wetlands, as well as water utilisation, development, management, and control; and, accordingly
2. To further inform government policy on the White Nile, its tributaries, and the Sudd Wetlands, as well as water utilisation, development, management, and control.

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I hope you find the report very rewarding!

Faithfully yours,

A handwritten signature in blue ink, appearing to read 'B. Marial Benjamin', written over a light blue rectangular background.

---

**Dr Barnaba Marial Benjamin (MP),**  
Minister of Presidential Affairs,  
Republic of South Sudan.

## Acknowledgements



The period between March and July 2022 saw a heated public debate over the contentious issues of dredging of the Naam River in Unity State and the proposals on the resumption of the Jonglei Canal project. The debate prompted the Office of the President to initiate this unprecedented public awareness and consultation on the Sudd Wetlands and the White Nile Waters to expand the discourse on these issues.

The Organising Committee is grateful to His Excellency President Salva Kiir Mayardit, the Honourable Dr Barnaba Marial Benjamin, Minister in the Office of the President, and indeed to the whole Executive of the Republic of South Sudan, for the trust and opportunity bestowed upon the committee to lead the consultations.

We also profoundly extend our sincere appreciations to the Honourable Members of both Houses of our Legislature, as well as the Honourable Members of the Executive, for equally turning up in their numbers during the consultations.

It is indeed so commendable that the technical personnel of the focal ministries dedicated their time and participated fully. A special thank you to Honourable Joseph Africano, Undersecretary of the Ministry of Environment and Forestry, as well as to Honourable Emmanuel Ladu Lupai, Undersecretary of the Ministry of Water Resources and Irrigation, for their technical guidance and relentless support during the consultations. The Committee is also extending heartfelt commendation to General Akol Koor Kuc, Director General of the Internal Security Bureau of the National Security Service, for the support towards the committee, and especially in the provision of security during the five days of the awareness and consultation process.

The Committee is deeply indebted to the international and national experts for their presentations and commendable insight into the issues of transboundary waters, policies, water utilisation, development, management, and control. In this respect, we wish to specifically thank Professor Tag Elkhazin, Mr Deng Majok Chol, Dr Salwa Berberi, Eng. Isaac Liabwel, Associate Professor Dr John Leju Celestino, Mr Laguya Kenyi Lupai, Maulana Deng Abraham Akeç, Mr Alier Oka, and Mr Yong Kuai. Similarly, we also extend our sincere appreciation to Mr Nhial Tiitmamer and

Dr Augustino Ting Mayai, for their valuable time and contribution during the process.

And to South Sudanese citizens who turned up for three (3) days without fail, the South Sudanese diaspora community who followed the consultation live on Facebook, Twitter, Zoom and the South Sudan Broadcasting Corporation TV, the committee greatly acknowledges their participation and enormous contribution. As the Chairman of the Organising Committee, I am exceedingly grateful to the Deputy Chairperson, Mr David John Kumuri, all heads of the Subcommittees, and indeed to all members of the Organising Committee, as well as to Prisca Achol, Ayii John, Amati Joseph Maker, Nyenakot Malek, Winnie Nyawura and Sunday Aaron of the Office of the President, without whom this historic consultation would not have been achieved.

Thank you all for your time, dedication, and special contribution during this extraordinary process.

Sincerely yours,



---

**Akoc Akuei Manhiem**  
Chairman, SWWDMI



## Abbreviations and Acronyms

AAU	Addis Ababa University
BCM	Billion Cubic Metres
CFA	Cooperative Framework Agreement
COS	Council of States
DRC	Democratic Republic of the Congo
ESIA	Environmental and Social Impact Assessment
FAO	Food and Agricultural Organisation
Helsinki Rules	The Helsinki Convention on the Uses of the Water of International Rivers (1992)
ILC	International Law Commission
IWRM	Integrated Water Resources Management
Law of International Rivers	Convention on Non-navigational Usage of International Waterways (1997)
Law of Treaties	Stand for Vienna Convention on the Law of Treaties (1969)
MoU	Memorandum of Understanding
NAP	National Adaptation Plan
NBI	Nile Basin Initiative
OECD	European Organisation for Economic Cooperation and Development
Ramsar Convention	The Ramsar Convention on Wetland of International Importance, Especially as Waterfowl Habitat (1971)
R-ARCSS	Revitalised Agreement on the Resolution of the Conflict in the Republic of South Sudan
R-TGONU	Revitalised Transitional Government of National Unity
RTNLA	Revitalised Transitional National Legislative Assembly

SPLM/A	Sudan Peoples' Liberation Movement/Army
SSMA	South Sudan Meteorology Agency
SSPDF	South Sudan Peoples' Defence Forces
Succession of States	Vienna Convention on Succession of States in respect of Treaties (1978)
SWWDMI	Sudd Wetlands and the White Nile Water Resources Development and Management Initiative
TCRSS	Transitional Constitution of the Republic of South Sudan
TV	Television
UN	United Nations
UNESCO	United Nations Educational Scientific and Cultural Organisation
UNGA	United Nations General Assembly
USSR	Union of Soviet Socialist Republics

## Executive Summary

The Sudd Wetlands and White Nile Water Resources utilisation, development, management and control report on the public awareness and consultation is an information and action-oriented document. This initiative reached its climax when H.E. the President seized the opportunity of his address to the nation on the 11<sup>th</sup> Anniversary of the South Sudan's independence to arrest the public outcry by freezing the dredging activities and commissioned feasibility studies.

The report provides an independent yet empirically accurate and comprehensive set of recommendations, way forward, and lessons learnt to support the R-TGONU on the contentious issues of dredging and resumption of Jonglei Canal which are perceived to have detrimental impacts on the Sudd Wetlands, and the White Nile River and its tributaries.

The approach was inclusive with a combination of informative sessions on the issues of concern presented by international and national experts, as well as from public discourses. To enable unlimited dialogue and free discussions, the committee designed sessions in three groups as follows:

1. The first three (3) days were opened to the general public;
2. The fourth (4<sup>th</sup>) day was for the Honourable Members of the Legislature (Revitalized Transitional National Legislative Assembly (R-TNLA) and the Council of States (COS)); and
3. The fifth (5<sup>th</sup>) day was for the Executive.

This report is intended for the R-TGONU and the Citizens to understand the issues impacting one of the world's valuable world heritage sites, the Sudd Wetlands, and to fully explore importance of their water resources beyond household use. Water resources utilization, development, management, and control is essential for the viability and prosperity of South Sudan. This public consultation process set the precedent for similar future engagements on critical policy issues in all the sectors.

Drawing from the different research papers, archives, and professional experiences, both the national and international experts provided informative insights on the approaches to water resources utilization, development, management, and control. The sessions involved setting the background to the consultation process, presentations, plenary, general observations, key findings, issues arising, recommendations, and lessons learnt.

**During the public discourses, several issues emerged, including but not limited to:**

1. The increasing intensity and frequency of extreme weather events in South Sudan as a result of climate change and variability that are linked to global warming; and therefore, the need for short, medium, and long term adaptation solutions;
2. Lack of funding and inadequate Legal Frameworks for water resources management;
3. How the Sudd impacts particularly vulnerable segments of the society, i.e., women, children, elderly, and youth;
4. The necessity of comprehensive feasibility studies, substantiated with Environmental and Social Impact Assessment (ESIA) reports and mitigation measures, and action plans before any project is implemented. The cases in point include Bentiu-Rubkona and Wengkei bridges that have been blocking natural water ways; the Juba-Rumbek road for which flows were underestimated by 50% and washed out in May 2020; and the oil access roads that are embanked across the complex riverine;
5. Challenges of water security, exacerbated by climate change variability and anthropogenic activities are national security threats;
6. Indecisive position of South Sudan in meeting the membership obligations of the Nile Basin Initiative (NBI) and incomplete accession process to the Cooperative Framework Agreement (CFA);
7. Dredging and canals are not necessarily the suitable approaches for controlling floods, as their purposes are suitable for navigation and transmission of water respectively. But storage dams upstream serve as part of hydropower generation and flood control measures, which can be complemented with dikes and drains for roads and urban areas in downstream low-lying landscapes and habitats.

**After deliberations, the following were recommendations to address the above issues:**

1. The R-TGONU (South Sudan Government) should provide relief assistance to the flood-affected populations and consult with them and as well as with

the host communities, particularly on their short-term relocation programmes;

2. The R-TGONU (South Sudan Government) needs to provide adequate funding to the Ministry of Environment and Forestry, and other relevant Ministries, to commission comprehensive feasibility studies on clearing/cleaning/dredging and any other project;
3. The contracts for clearing/cleaning/dredging and any other project related to the White Nile River and its tributaries should not be single sourced to a country with competing interest in the Nile waters;
4. Similar to the directives given to the Ministry of Environment and Forestry to conduct ESIA prior to clearing/cleaning and dredging of any tributary of the White Nile River, the Ministry of Roads and Bridges should also be directed to take appropriate actions on the situations of Bentiu-Rubkona and, Wangkei bridges, and any other major road infrastructure;
5. The Ministry of Transport should avail proposal(s) pertaining to river navigation routes, consistent with best practices;
6. The Legislature should form an all-party parliamentary committee for water resources to oversee the adoption of policies, strategies, and action plans on the utilization, development, management, and control of the White Nile water resources;
7. South Sudan needs to establish a Water Resources Authority to be responsible for both national and trans-boundary water resources;
8. South Sudan needs to establish a National Environmental Management Authority to be responsible for issues related to the environment; and
9. South Sudan needs to fast track the accession to the Nile River Basin Cooperative Framework Agreement (CFA).

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# **REPORT ON THE PUBLIC AWARENESS AND CONSULTATION ON THE SUDD WETLANDS AND THE WHITE NILE WATER RESOURCES DEVELOPMENT AND MANAGEMENT INITIATIVE**

## **1. Background and Problem Statement**

### **1.1 Introduction**

The Sudd Wetlands and White Nile Water Resources Development and Management Initiative is a committee commissioned by the Office of the President to convene this unprecedented and momentous public awareness and consultation on issues affecting the White Nile waters and the people of South Sudan. The Office of the President launched this initiative for a public awareness and consultation from the 10<sup>th</sup> to the 14<sup>th</sup> of July 2022 on multilayered issues regarding the White Nile waters. To achieve this objective, a panel of experts of diverse research expertise and experiences in water resources management (environmentalists, climate scientists, hydrologists and water engineers, geologists, policy makers, international lawyers, as well as experts in strategy, security and hydro politics), delivered empirically proven, and scientifically sound assessment of the White Nile waters. The process fostered dialogue and sought public opinion behind potential best options for flood management system, water policies, and implications of the approaches to the dredging operations on the White Nile and its tributaries. The discourse further also highlighted pros and cons of the Jonglei Canal considering the effects of large-scale hydro-climate issues of the Sudd and surrounding areas.

### **1.2 South Sudan Context**

The Republic of South Sudan attained its independence from the Sudan in 2011 but continues to have recurrent conflicts, with devastating impact on the lives of millions of citizens.

In September 2018, a Revitalized agreement on the resolution of conflict in South Sudan (R-ARCSS) was signed to give peace yet another chance. To date, the implementation of the R-ARCSS has been challenging and the complexities of the current political environment have not provided space for discussions on the issues of the White Nile waters until recently.

## 1.3 Problem Statement

South Sudanese staged a social media campaign after information surfaced that dredging equipment arrived in Unity State within May 2022. Several platforms indicated that the equipment was delivered to deepen and widen the Bahr El Ghazal and the Naam river. The leadership of the Republic of South Sudan followed the conversations closely. To address the mounting public concern, the Office of the President constituted a committee to foster these discussions. It became clear that there is an urgent need for dialogue around this issue involving experts on issues of water resources management, line ministries (the Ministry of Water Resources and Irrigation, Ministry of Environment and Forestry), academic institutions, legislature, cabinet and interested members of the public.

Additionally, a select multivariate group to conduct a joint field visit to the site with the support from His Excellency the President of the Republic. Both the experts and the committee members requested the Presidency to halt the work and equipment until appropriate studies have been clarified to the public and policy makers, the issues of the White Nile and water resources management. The decisions and policies on South Sudan water resources should only be determined and developed by the will of the people and their leadership, without coercion or pressure from any internal or external interference. These issues surfaced because of multi-layered concerns on the Sudd wetlands and three (3) came out clearly.

### 1.3.1 Flooding

With its continued fragility, South Sudan had its worst flooding on record in 2021 with more than 835,000 people estimated to have been affected, out of which 200,000 were displaced, according to the UN Office for Humanitarian Affairs. Recurrent rainfall in the past three years (2019-2021) and overflowing rivers have flooded thousands of farmlands in eight states and prevented people from cultivating with the worst hit being Unity, Jonglei and Upper Nile States which are located along the Sudd wetlands.

Nearly 800,000 livestock are thought to have perished. Thirty-three out of 79 counties are badly affected by the flood waters, which have not significantly subsided since the last wet season. In the three states many are displaced while others are stranded in dike-ringed compounds, holding back floodwaters with mud, sticks and plastic sheeting provided by humanitarian agencies. The approaching wet season threatens to swamp extremely remote communities where residents are



already surrounded by floodwater. Such climate events will worsen in future, as extremes become the norm, not the exception.

Globally, floods and droughts are becoming more frequent and intense. South Sudan like other developing countries, contribute the least to carbon emissions, but are disproportionately affected. The narrative of the Government has been to mitigate floods and rescue this largely affected population as it is assumed that the flooding will continue to threaten and worsen livelihoods.

### **1.3.2 Dredging**

The most controversial among the three (3) burning issues for South Sudanese citizens has been the issue of dredging of the Bahr el Ghazal (Naam) River. It was clear that many were confused on the understanding of dredging and its impacts on the White Nile waters and its tributaries. This became even more contentious when information of the arrival of the ‘machines for dredging’ from Egypt to Unity State surfaced. There were major concerns that arose from social media debates. The Government acted alone and a single ministry was assigned, the Ministry of Water Resources and Irrigation, which also acted in a similar manner despite the magnitude of the project in impacting the country as a whole.

The contention has been environmental concern, the involvement of Egypt as the sole initiator and procurer and implementer of the project, notwithstanding the history and transboundary nature of the Nile Waters that link South Sudan with other countries of the Nile Basin, such as Ethiopia, Uganda and the Democratic Republic of the Congo (DRC).

### **1.3.3 Possible Resumption of the Jonglei Canal**

Being a colonial project since its inception in 1904, several groups have criticized the resumption of the Jonglei Canal project which has a tainted history, marred with apparent catastrophic consequences of draining the Sudd Wetlands. The start of excavation in 1974 led to riots, spearheaded by a number of MPs in the then regional capital Juba during which a number of students died. With some mitigation and dialogue it continued until it was brought to halt by the Sudan Peoples’ Liberation Movement/Army (SPLM/A).

The above three contentious issues made it clear that there are policy concerns when it comes to the Sudd Wetlands, and the White Nile and its tributaries. Hence,

there is need for contemporary scientific review of the history and outlook on South Sudan water utilisation, development, management, and control.

## **2. Objectives of the Consultation**

### **2.1 Overriding Objective**

The overriding objective of the 5-day deliberations is to create citizen's awareness on the water security elements and to point out to the need to conduct scientific and professional research on South Sudan waters, comprising of rainfall, rivers, wetlands, streams, groundwater, swamps, marshes, lakes, and aqua development potentials, for South Sudan's best interests.

### **2.2 Specific Objectives**

The specific objectives were to:

- (1) Enlighten the citizens of South Sudan regarding the dredging of the White Nile and its tributaries, the resumption of the Jonglei Canal, and the resulting impact on the Sudd Wetland ecosystem;
- (2) Sensitise the citizens of South Sudan on their rights and benefits on the White Nile waters, and on the necessity to ensure a legal framework that safeguards the rights of future generations to those benefits and rights;
- (3) Educate the citizens of South Sudan regarding climate change variabilities, resulting in flooding and drought scenarios, and their mitigation and adaptation measures; and
- (4) Offer policy recommendations to guide government decisions on the governance and management of the White Nile waters.

## **3. Methodology**

The water resources public awareness and consultation process applied both qualitative and quantitative methods. Our first approach entails collecting qualitative information through a Public notice-and-comment consultation tool which is open and inclusive and more structured and formal. The public awareness element means all interested parties have the opportunity to become conscious of

the subject matter of the White Nile River and its tributaries, so that they are able to effectively participate in the overall consultation process from an informed position. The experts will provide a standard set of background information, including a list of the topics, discussion of the objectives and the problem being addressed and, often an impact assessment of the proposal and, perhaps, of alternative solutions.

Both the national and the international experts presented topics on the White Nile and its tributaries, the Jonglei Canal, Dredging, water works and legal frameworks on the Nile agreements. These topics gave a standard set of background information, supplemented by plenary sessions. The plenary sessions were done in the form of comments, questions and answers, with the intention of giving the audience opportunity for seeking clarification on information that might not have been understood. The Moderators managed the allocation of time, chances for comments, questions and answers. The sessions started from 9:00 am to 6:00 pm.

Our second approach was quantitative, and was designed to gain feedback on the consultation process. The Secretariat administered a total of 400 evaluation questionnaires for the five (5) days of the consultation process. Questionnaires were distributed to the first segment after the three first days. This was immediately followed by questionnaires on the fourth day to the Honourable Members of the Revitalized National Transitional Legislative Assembly (RNTLA) and the Council of States. On the last or fifth day, the same was administered upon the Honourable Members of the Executive.

The Secretariat designated rapporteurs to capture minutes of the awareness and consultation for all the five days. In addition, another group of rapporteurs prepared the summary and recommendations of each session for recap on the morning of each following day. To better shoulder its responsibilities, the Organising Committee was grouped into the appropriate subcommittees of Protocol, Media, Service, and Reception. Other tasks included conducting press conferences to inform the public of the initiative, as well as radio and TV interviews.

#### **4. Scope of the Report**

The report has twelve (12) parts and contains: Introduction, Background and Problem Statement, Objectives, Methodology, Summary of Presentations from Experts, Accomplishments, Key Findings, Emerging Issues, Recommendations, Lessons Learnt, Way Forward, and Annexures.

## **5. Summary of the Presentations by National and International Experts**

### **5.1 Overview of the White Nile River Basin and the Sudd Wetlands**

#### **Presentation IA:**

#### **The White Nile Waters from the South Sudan Independence and Beyond By Professor Tag Elkhazin**

#### **Excerpt of Key Points:**

- The White Nile has three main Basins: the Bahr El Jebel, Bahr El Ghazal, and Sobat, together with their various ecosystems.
- The 1929 and 1959 Agreements gave chunk of the Nile waters to Egypt and Sudan, leaving the vast of the Nile Basin countries out.
- There are nine Agreements on water that South Sudan must have at their fingertips—that include the colonial agreements and the regional agreements.
- The Bahr El Ghazal Basin with all its tributaries 100% belongs to South Sudan.
- Water Security is a national security issue.

#### **Presentation IB:**

#### **The Sudd Wetlands, Climate Change, and its Variabilities in Terms of Floods and Drought: A review. By Mr Deng Majok Chol, DPhil (Cand), Oxford University**

#### **Excerpt of Key Points:**

#### **Global water challenges induced by Climate Change**

- Climate Change is a global phenomenon that affects every continent, and all countries.
- While the total value of the world's ecosystem services (including the Sudd) is estimated at some \$147 trillion, over 60 percent of these are being degraded.
- According to data by the UN, over 2 billion people live in countries that are experiencing high water stress.
- The number of people at risk from floods is projected to hit 1.6 billion in 2050, with \$45 trillion worth of assets at risk (World Outlook to 2050: OECD 2012).

- It is estimated that by 2050, 3.9 billion people (or 40 percent of the world's population) will live in river basins under severe water stress.
- South Sudan must be proactive and dynamic as it invests in appropriate and sustainable adaptation measures that mitigate the impacts of intense flooding and sporadic drought.
- Any environmentally sustainable management of water resources need to address issues of water pollution. Currently, over 80 percent of the world's wastewater (UNESCO, 2017) is discharged back into rivers, streams, and oceans without any treatment.

### **The Context of the Nile Basin Water Challenges**

- The population of the Nile Basin is about 487 million, of whom at least 50 per cent are heavily dependent on the Nile waters for their economic and domestic existence (NBI).
- The rainfall over the basin is unevenly distributed and ranges from virtually zero to over 2000 mm per annum.
- Given the apparent rapid population growth in the basin, the Nile Basin countries and populations are faced with inevitable choices: whether they will be able to maintain a reasonable degree of food self-sufficiency through cooperative utilization of the Nile waters, or whether they become increasingly dependent on food imports.

### **South Sudan Water Challenges: The Population Living in the Sudd Faces Water Insecurity due to Specific Threats**

- Seasonal flooding due to Nile flows from the equatorial lakes and local rainfall
- Limited access to safe water due to limited and unreliable water supply infrastructure.
- Extractive industry pollution leading to serious water quality and public health issues; poor management of oil spills pose serious adverse impacts on Sudd ecosystem, environmental health, and the livelihoods of the populations.
- Transboundary water challenges including hydro politics with the potential implementation of infrastructure projects without feasibility studies will continue to cast reduction of the Sudd wetlands, which will impact on the livelihoods of the people.

## Intense Floods Observed in the Sudd Basin

- Over 90% of South Sudan lies in the Nile Basin, and this fact gives South Sudanese considerable rights to benefit from the White Nile water resources.
- The intense flooding events (2019-2021) occurred concurrently in multiple sub-basins in the Sudd Basin/Bahr El Jebel, the Bahr El Ghazzal Wetlands, and Baro-Akobo-Sobat River sub-system and its confluence with Machar Marshes, and local runoffs and torrents from the Boma plateaus.
- These ongoing large-scale flooding has affected seven of the ten states of the country.
- The scale of the impacts is unprecedented as hundreds of thousands of people have been displaced, and significant assets have been swept away.
- Documentation of historic major flooding events from 1800-2022 demonstrates uneven distribution of rainfall, multiple sources of flooding, and over dependence of the populations in the Basin on environmental resources.

## 5.2 Tabular Illustrations of Climate Change and Variability: Floods and Droughts

**Table 1: Sudd Major Historic Flooding Events**

Major Historic Flood Events	Sources of the Flood	Impacts
1916-17: Pibor (White water- named by Gawaar Nuer); Pilual (red water) by Nuer, Amol Thith (red water) named by Dinka	Caused by general rise in the level of Lake Victoria-1915, but heavy Ethiopian rains substantially raised the level of the flood in 1916-1917	Eighteen months of flooding began in Upper Nile Province in October 1916, which submerged whole districts from Bor to Malakal and from Kongor to the main Nile. Another flood, a much higher and prolonged one in 1917-1919.
1946-49: Nyoc Duop (by Nuer); Amol Atong (named after a Dinka woman drowned in flood), Amol Alier (named after a Dinka man drowned in flood)	The flood came from Bahr el Jebel and the Sudd and was severe in 1948 and 1949.	Affected the Bor and Twic, as well as some Dinka living around the mouth of the Khor Fulluth. It was this flood which forced many Bor and Twic to leave their territory and settle among the Lou Nuer to the east. After the floods of Atong and Alier the Gaawar Nuer are said to have settled on land formerly held by the Dinka

Major historic flood events	Sources of the Flood	Impacts
1820s: Amol (flood) Magook-locally named by the Dinka ethnic groups after a man who drowned in the flood)	between the mouths of the Khors (stream) Fulluth and Atar, the flood came from the east, from the Sobat River	Devastated the country from the Fulluth mouth to the Zaraf mouth, destroying trees, grass, animals, and human beings. Some of the Thoi Dinka fled to the Duk ridge for safety. So many people died in the floods waters that covered the land for as long as five years.
1878: Nyoc Mogogh (white flood, in Nuer language by the Gaawar Nuer)	Luac and Ghol (Hol) Dinka recall that the flood came to them from the south, along the Bahr al-Jebel (from the Sudd)	Cattle disease (bovine pleuropneumonia) killed off the herds. The flood destroyed the sorghum crop, reducing people to eating nothing but water lily. The Aswan gauge records a sharp flood in 1879, which is consistent with the observed high flood along the Bahr el-Jebel in 1878 (water upstream from the swamp took three to six months to clear the Sudd).
1896: Nyoc (flood) Mut Roal (flood locally named by the Gaawar Nuer section)	From the Nile records and western Nuer oral accounts there were a series of floods in 1894-1896, the peak being reached on the Bahr el Jebel (from the Sudd)	Ajuong area was untenable, forced Jamogh Gaawar to the Rupciengdol area. This move by the Jamogh was the first step in their eventual occupation of the Duk ridge, adjacent to Hol Dinka Toic (swamps) Three events coincided in the same year: the flood, the battle against the Dinka and their "Turuk" (Turkey) allies, and the marking of the Lier age set.
1899-1903: Nyoc Mut Mandoang(grandmother) locally named by Gaawar Nuer	The flood came from the west, flowing northward along the toic (swamps)	People living at Ajuong were flooded out, even the eastern edge of Rupciengdol became too muddy to keep cattle, and Deng Laka (prophet) finally led his people to the Duk ridge, where the sandier soil promised a drier existence.
1931-34: Thoyni and Nyoc Guan (locally named by Nuer)	The Bahr El Jebel was consistently high, causing flooding throughout the areas to the east of the swamp, 1931-33.	local floods around Bor, Kongor and Duk Padiat. Further north the Bahr al-Ghazal flooded its mouth in 1930-1931; severe flooding affected the Zaraf Island and the east bank of the Zaraf. The flood came in September-December but subsided in March-June Gaawar were reduced to eating wild plants. The flood of 1933-1934 gets its name from the seeds of the thou tree ( <i>Balanites aegyptiaca</i> ), which became the staple diet at this time. The famine in



		western Nuer at the end of 1938 was a combination of heavy local rains with rising rivers two months after they should have begun to subside
1961-64: Amol Pauer (flood of the great dispersion by the Dinka)	The immediate cause was the dramatic rise in the East African lake levels that flowed into Bahr el Jebel and the Sudd.	Affected Bahr el Jebel/ Bahr al- Zaraf; Sudd swamp expanded and flooded grasslands far to the east. Total area covered permanently by swamp or seasonally by river flood is still far greater than before 1961. Heavy local rains also produced a creeping flood affecting many areas in the Sudd region

**Table 2: Sudd Major Historic Droughts Events**

Major historic droughts	Causes of droughts	Impacts
1822-5: drought and famine in North East Africa (Schove:41);	Nile was generally low/drop in precipitation in the Nile headwaters, which affected White Nile tributaries.	Impacts not recorded
1871: drought at Gondokoro-Baker 1875: Page 316	Caused by series of weak Niles during a period of international famine in c. 1866- 1868	Impacts not recorded
1877, 1880-1890: International drought in North and South Africa (Schove): Page 42	a brief decline in the level of Lake Victoria which affected White Nile tributaries	Impacts not recorded
1900: drought 1950-2 (1951- lowest) Garstin: Page 9 JIT 1954: Page 239	1899-1921, was a period of generally low Niles. Bahr el Jebel and Bahr el Ghazal Bahr el Jebel (lowest in 1951)	On the Bahr al-Zaraf there were serious water shortages around Pacier in Gawaar Nuer land in 1930. Grassland was drier, and farming impeded in most areas

**Experiences of Other Countries and Regions Living with Flood:**

- Basrah, Iraq.
- New Orleans, USA.
- Venice, Italy.
- Ho Chi Minh City, Vietnam.
- Kolkata, India.



- Bangkok, Thailand.
- Georgetown, Guyana.
- Amsterdam, the Netherlands.

### **Sporadic Drought Patterns Observed in the Sudd Basin**

- Documentation of historic drought events 1800-2022 demonstrates persisting sporadic drought patterns and its negative impacts on the local environment, the Sudd ecosystem, livelihoods of the populations, and the wildlife.

### **Experiences of Countries and Regions Facing Disappearance of Water Bodies Induced by Climate Change: Heat Wave and Drought.**

- Aral Sea (Kazakhstan and Uzbekistan)
- Lake Poopó (Bolivia)
- Lake Chad (Central Africa)
- Owens Lake (California)
- Lake Powell (Arizona and Utah)
- Lake Meade (Nevada)

### **The Sudd Wetland under Changing Climate, an Empirical Study By Mr Andu Zakaria Wani Lukwasa, PhD (Cand), AAU Lecturer and Climatologist, University of Juba**

#### **Excerpt of Key Points:**

- From the analysis of data set (1979 to 2014), the Standard Precipitation Index (SPI) result indicated 27 years dry spells (77%); 8years of wet spell (23 %).
- The SPI showed high frequency of droughts in, 1984 - 1985, 1986,1991-1992, 2000 - 2003, 2005 – 2006,2007 and 2010 similar to result of (Yagoub, Li, & Musa, 2017).
- The result revealed low annual precipitation from 1979 to 1999 during the rainy season.
- Rains started increasing from 2007 in the Sudd Wetland.

- NCEP prediction for precipitation in the Sudd Wetland by 2020s it will reduce by -74%.
- In the H3B2 scenario the precipitation prediction illustrated continues decline of -76% throughout the 2020s.
- In the NCEP dataset, the period 2020s prediction of Tmin would increase by 1.05°C.
- In the H3B2 dataset, the period 2020s prediction of the Tmin would increase by 1.11°C.
- In the NCEP dataset, the period 2020s prediction of Tmax would increase by 0.07°C.
- In the H3B2 dataset in the period 2020 prediction of the Tmax would increase by 0.07°C.
- Climate variability and climate change is real in the Sudd Wetland.
- It is time now to mainstream climate change adaptation and mitigation in the Sudd Wetlands as documented by the National Adaptation Plan (NAP) MoEF (2021).
- Establishment early warning system to cope up with droughts and floods.
- Empowerment of the South Sudan Meteorology Agency (SSMA).

**Water Governance: National, Regional, and International Legal Frameworks**  
**By Dr Salwa Gabriel Berberi**  
**Founder and Director, Berberi Academy for Training and Learning**

**Excerpt of Key Points:**

- There are four main sources of water in the RSS: the surface, transboundary, ground water and rainwater.
- The presentation discussed various legal frameworks from the national, regional, and international contexts. Regional agreements, international treaties and conventions, including Vienna Convention on the Law of Treaties, Vienna Convention on Succession of States in respect of Treaties (1978) - the Clean Slate Principle, Principles and Rules Governing the Transboundary Waterways: Helsinki Rules (1992), and Berlin Rules on Water Resources.
- The presentation also looked at the relevant national laws Transitional Constitution of the Republic of South Sudan (TCRSS 2011 as amended) and Revitalized Agreement on the Resolution for the Conflict in the Republic of

South Sudan (R-ARCSS) and the gap in terms of constitutional provisions and national legislation on the utilisation, development, management, and control of the White Nile Waters and its tributaries, as well as the Sudd Region and its ecosystems.

- The presentation underscored that the navigational uses of water are exclusively a right of a sovereign nation like South Sudan, while the international laws governing the non-navigational uses of international watercourse are aimed at ensuring: 1- Equitable and reasonable utilization; 2- Obligation not to cause significant harm; 3- Obligation to cooperate on the bases of sovereign equality, territorial integrity, mutual benefit, and good faith.

### **Presentations by Professor Tag Elkhazin**

1. **AA NILE WATERS FROM 2011 AND BEYOND PROSPECTS FOR SOUTH SUDAN PRESENTATION “A” BACKGROUND:** Brief background of the Nile in South Sudan. The emergence of the SUDD. The countries contributing to the total Nile discharge. Introduction to the water rights.
2. **BB THE SUDD and INTERNATIONAL LAW (AND RELATED LEGALITIES).** Introduction to international agreements, covenants, protocols, and conventions that may be of value to South Sudan to obtain, study and follow up.
3. **CC NILE WATERS FROM 2011 AND BEYOND PROSPECTS FOR SOUTH SUDAN PRESENTATION “B”:** WATER POLICY AND INNOVATION. Hydro policies and Hydro politics. Awareness about water potential in South Sudan. A wakeup call to be aware of the rights and obligations of South Sudan on Nile Waters. Identification of the SUDD wetlands and their potential.
4. **DD NILE WATERS FROM 2011 AND BEYOND PROSPECTS FOR SOUTH SUDAN PRESENTATION “C”:** A FUTURE OUTLOOK. Floods, Haffirs, to-do advice for South Sudan to consider both at the national and regional levels.
5. **EE ESSENTIAL COMPONENTS OF AN INCLUSIVE AND CREDIBLE FEASIBILITY STUDY.** Feasibility studies on issues of national security nature do not stop at economic and social impacts. They must transcend

to issues affecting women, health, peace, and conflict and a whole set of 8 more areas needing research.

**The Debates on the Nile Water Projects: Legal and Policy consideration.  
Supplement by Maulana Deng Abraham Akec  
Deputy Dean of the School of Law, University of Juba**

**Excerpt of Key Points from his Conclusion:**

- Water is life, and a resource vital like no other for humans, and the environment.
- Right to water is a human right upon which all other human rights depend.
- Current global water management trends: Oblige States to observe and ensure certain substantive and procedural safeguards (ESIA, public participation, etc.).
- Volatilities & South Sudan's best options: Prioritizing water sector development and diligently building regional alliances in the context of the current hydro-politics within the Nile Basin.

**Presentation 2B:**

**The Sudd Wetland Ecosystem, Affected People, Socio-economic Value and Water Resources Management**

**By Mr Deng Majok Chol, DPhil (Cand), Oxford**

- The Sudd is one of the world's most unique and valuable ecosystems, and Africa's largest freshwater wetlands.
- Studies have demonstrated Sudd wetland as potentially the greatest economic asset in South Sudan if it is developed and managed sustainably.
- The Sudd and its related wealth and blessings are symbols of national identity, considering its role in supporting South Sudan's unique cultures, climate change mitigation, and regulation of the steady flow of the White Nile.
- The Sudd provides seasonal refuge to the wildlife- between Boma plateau and the Sudd.
- Other unique roles include seasonal groundwater recharge, carbon sequestration, water purification and natural potential for research and educational activity.

- Environmentally sustainable management of the Sudd wetlands and White Nile water resources comes with great socio-economic benefits, and poor management on the other hand poses serious threats to the communities and the ecosystem services.
- Environmentally sustainable approach will afford South Sudan to realize its rights and utilize its benefits of water resources to produce enough food for its populations, to generate hydroelectric, and to protect the environment.
- South Sudan developmental policies should focus on socioeconomic transformation through large-scale agricultural industry to wean the population off subsistence farming, which is 80 percent of the populations.

## **Different Aspects of Water Resources Utilizations and Control**

**By Eng Isaac Liabwel**

**Independent Consultant**

### **Excerpt of Key Points:**

- Highlighted the water resources of South Sudan, including rainfall, surface water potential and the groundwater as projected in the 2015 national Irrigation Development Master Plan (IDMP).
- Indicted that the average annual rainfall is around 900 mm/year (FAO, 2015), and it ranges from about 500 mm/year to around 1,500 mm/year (RSS' IDMP, 2015).
- Revealed that 97.5% of South Sudan is covered by the White Nile and its tributaries, while 2.5% of the country drains into Lake Turkana.
- Summarized the hydro-geological setting of South Sudan in such a way that the Basement Complex, occupies throughout the country. Through geo-tectonic movement in very old times, the basement forms a trough, which was filled by huge volumes of sediments. First by Nubian Sandstone, then by Umm Ruwaba formation and alluvial deposits over the Umm Ruwaba especially along the rivers. These water-bearing geological formations (aquifers) constitute the Sudd groundwater basin.
- Emphasized the need for effective planning and prioritization of water resources utilization, development, and control mechanisms in the basis of Integrated Water Resources Management (IWRM) framework.
- Listed the existing and planned water resources related projects since 1940s, including northern Upper Nile pumps irrigation schemes, Aweil Irrigation Rice

Scheme, and potential hydroelectricity dams (Fula, Shukoli, Lakki and Beden, Torit, and Wau).

- Gave an outline of water resources issues in South Sudan, including floods, droughts, construction of roads and bridges without or with insufficient provisions for natural drainage, urbanization without proper land zoning according to topography.
- Cited examples of poor conceptualization in terms of water management planning and execution, including missing of three bridges that should have been constructed at km 25, km 125 and km 250 across the unfinished Jonglei Canal and lack of culverts across most of oil access roads.
- Described objectives of different water Infrastructure/Works, including dikes and drains for solving flooding in urban areas, reservoirs created through the construction of water harvesting/storage structures (dams and Haffirs) for reducing flood peaks, and appropriate bridges/culverts in the places of roads crossing with watercourses.
- Presented important points in the August 8, 2006's MOU signed between the Ministries of Water Resources and Irrigation of the Government of Southern Sudan and the Arab Republic of Egypt, including: i) Cleaning and clearing of the aquatic weeds and other deposits from the rivers of Bahr el-Ghazal Basin; ii) Feasibility Study for Constructing the Multipurpose Dam on River Sue at the vicinity of Wau City; and iii) review of the Jonglei Canal.
- Proposed a three (3) stage approach of: i) adoption of a short-term/immediate intervention as assistance to the affected people; ii) a medium-term intervention clearance and cleaning of aquatic weeds from the reaches of the Bahr el-Ghazal and its tributaries, which should be combined with replacement of the Rubkona-Bentiu and Wangkei bridges; and iii) a long-term intervention of dredging project proposal.
- Delved into the governance aspects as per the 2015 Draft Water Bill that envisioned the establishment of a national water resources authority, under which there would be basin boards, catchment/sub-catchment committees, and water users' associations.
- Explained South Sudan position in the Nile Basin Initiative (NBI) as being: i) Midstream on the White and Eastern Nile systems; ii) active in the NBI since 2005 as part of the then united Sudan; iii) several engineers and water professionals benefitted from NBI training opportunities; iv) became member on 5<sup>th</sup> July 2012; and v) in August 2013 approved accession to the Nile River Basin Cooperative Framework Agreement (CFA) intended to replace colonial agreements with a focus on principles enshrined in the international water law such as "equitable and reasonable utilization of the Nile waters by the member countries, without causing harm."

- Emphasized the need for effective planning and prioritization of water development, utilization, and control mechanisms.
- Talked about Jonglei Canal and poor conceptualization in terms of water management planning and execution.
- Dived into the Nile Basin Initiative and the CFA, and its focus on equitable utilization of Nile waters by the member countries.
- Highlighted the unfavorable MOUs that the government of Southern Sudan signed with the Arab Republic of Egypt.

#### **Session 4B:**

#### **The Pros and the Cons of the Jonglei Canal, If Implemented By Mr Deng Majok Chol, DPhil (Cand), Oxford Supplemented by Mr Victor Wurda Lo Tombe**

#### **Excerpt of Key Points:**

- Explained urgency and imperatives of South Sudanese to consider civil works for flood control and the Sudd wetland and White Nile Water resources management
- Noted that Egypt has reopened discussion about restarting the Jonglei canal that would allow much of the White Nile flood to bypass the Sudd and be stored behind the High Aswan Dam in Egypt.
- However, some studies have provided insights that the lack of evaporation that would result from the resumption of the Jonglei canal may impact the rainfall over the Ethiopian Plateau, the source of the Blue Nile and Atbara Rivers that provide 90% of Ethiopia's and 75% of Sudan's and Egypt's water supply.
- Understanding the implications of changing rainfall patterns and regional landscape alterations should precede any water management interventions

#### **Specific Pros of the Jonglei Canal**

- Possibility of improved access and communications afforded by the canal services, trade and administration will concentrate village along the line of the canal.
- The canal will shorten the navigation route from Khartoum to Juba by some 3000 km and will hopefully provide a wide range of new economic alternatives to a people dependent upon herding, cultivation, and fishing.



## Specific Cons of the Jonglei Canal

- Since the Canal would reduce the water flowing into the Sudd, which is capable of carrying 55 million cubic metres of water per day, not only will the outflow be diminished but the area of permanent swamp and seasonal flood plain will decrease, changing the ecology of the Sudd with a concomitant effect on the human and animal population.
- Study simulations have demonstrated effect of the canal as greater on the permanent swamp than on a seasonal flood-plain
- A severe decrease in the discharge into the Sudd resulting from the Jonglei canal would bring about the total disappearance of many lakes in the papyrus zone and reduce others to the status of seasonal lagoons, with a serious loss of year-round fish and fishing potential.
- The canal will in many areas drive a barrier between wet season villages and dry season grazing grounds along the river channels and therefore dislocate the pastoral cycle.
- The reduction in both the areas of permanent and seasonal floodplain are naturally greater when 25 rather than 20 Mm<sup>3</sup>/day are passed down Jonglei.
- Thus, at a canal flow of 20Mm<sup>3</sup>/day measured against a river flow of seventy-five (1905-80) the permanent swamp will shrink from 9500 to 6200 km<sup>2</sup> (35 percent, the seasonal swamp only from 7400 to 5800 km<sup>2</sup> (22 percent)
- At a canal flow of 25Mm<sup>3</sup>/day, the reduction in the permanent swamp will be greater, from 9500 to 5500 km<sup>2</sup> (43 percent), the seasonal swamp from 7400 to 5400 (27 percent) (Sutcliffe and Parks, 1982 P.46)
- The Jonglei Canal is unnecessary distraction for South Sudan. The country's top priorities should be water security, food security, electricity production, provision of adequate health services and public infrastructures such as road, hospitals, schools, and universities.

## Environmental Impacts of River Dredging By Assoc. Prof. John Leju Celestino Ladu, PhD University of Juba

### Excerpt of Key Points:

- River dredging is the act of removing silt (sediments) and other unwanted materials (debris, wastes, trash, etc.) from the bottom or banks of water bodies by a motorized machine/equipment called dredges. Whereas river cleaning is the collection of all kinds of floating matter (e.g., water hyacinth,



plastic bottles, etc.) in river by a motorized machine/equipment called Trash Skimmer.

- Dredging can't destroy a river if it's done in an environmentally and sustainably way.
- Dredging is usually done for: maintaining existing waterways, creating new waterways, increasing waterway depth, mining for precious metals, gathering construction materials, in the preparation for construction projects such as bridges, docks, etc.
- The advantages of dredging are: it can remove contaminants that occur due to chemical spills, sewage accumulation, buildup of decayed plant life and storm water runoff. It helps ecosystems by removing trash, sludge, dead vegetation and other debris. It keeps the water clean; it preserves the local wildlife's ecosystems and remediates eutrophication. Dredging can also reduce flood in certain circumstances because the dredging process removes excess sediment along the bottom and sides of waterways, rain and connecting bodies of water can better flow together with less risk of floods.
- Disadvantages of dredging are endangers water quality, it can reduce water levels at some locations (case specific), dredging churns up old industrial pollutants like PCBs and heavy metals that have settled to the river bottom, adding to the river's contamination levels, dredging could in theory speed up flow and potentially increase the risk of flooding downstream. Dredging can damage ecology by directly affecting its physical habitat, disrupting riverine processes and reduced connectivity with the floodplain. Dredging causes erosion that endangers the riparian ecosystem and alters the physical habitat needed by native fishes. Dredging may also make a channel more vulnerable to exploitation by invasive non-native species, etc.
- There are documented evidence showing clearly that 'rivers which have been unsustainably dredged, silt-up more frequently and return to their pre-dredged state.'
- Dredging activities if not done on environmentally friendly way, can affect not only the site itself, but also surrounding areas. The impacts are generally two-fold – firstly as a result of the dredging process itself and secondly as a result of the disposal of the dredged material.

## **SESSION 5:**

### ***Essential Components of an Inclusive and Credible Feasibility Study*** **By Professor Tag Elkhazin**

#### **Excerpt of Key Points:**

- Economic Impact and values-added feasibility
- Cost and benefit feasibility
- Peace and conflict impact assessment
- Ecological, Climate and environmental impact assessment
- Women's lens and impact on women
- Political risks impact assessment (Unintended negative Impacts)
- Water Security impact assessment
- Collateral damage impact assessment (Case for Western Equatoria and the Green Belt)
- Impact on wildlife
- Social impact assessment
- Livelihood impact assessment
- Primary stakeholders' analysis and synergies and others
- Land ownership impact assessment
- Impact on Indigenous population
- Health (Human and animal) impact assessment
- Best alternative study and evaluation

### **Environmental and Social Impact Assessment (ESIA) and Its Importance:** **A Case Study of Rubkona-Bentiu Bridge** **By Mr Yong Kuai**

#### **Excerpt of Key Points:**

- Importance of ESIA before project implementation stage is that recommendations made by the ESIA may: *(i)* Necessitate the redesign of some project components; *(ii)* require further studies; *(iii)* suggest changes which alter the economic viability of the project; and *(iv)* cause a delay in project implementation.

- Due to poor ESIA or lack of it the Juba–Rumbek Road was overtopped and wiped out in May 2020 by a single rain. When Hon. Simon Mijok Mijak, Minister of Roads and Bridges appointed a team of experts to investigate what went wrong, it was found out that one of the causes was inadequate feasibility and ESIA that led to: (i) Underestimation of flows in some of the streams; and (ii) passing of the alignment in the wetlands.
- If ESIA was conducted for both the Rubkona-Bentiu and Wangkei bridges, before they were constructed, recommendations would have been made by the ESIA to redesign them in such a way that the flows of the Bahr el-Ghazal from Wangkei through Bentiu and to Lake No are not obstructed, to an extent that the aquatic weeds could not pass anymore and choked the river completely upstream of the Rubkona-Bentiu bridge.

## **6. Accomplishments of the Consultation**

The five-day public consultation process was very successful, owing to the following accomplishments among others:

### **6.1 Effective Citizen Participation, Consultation and Awareness**

At its core, the process was meant not only to sensitise the public on the issues of the White Nile and the Sudd Wetlands, but also to consult with the same on the best way forward in the management of the White Nile, the Bahr El Ghazal (Naam) River, the Sudd Wetlands, as well as other resources related to water. The consultation process provided a unique and historical platform for effective participation by the citizens, serving as a forum both for awareness and consultation.

### **6.2 Gathering Scientific Data and Knowledge on the White Nile, the Nile's Tributaries in South Sudan, and the Sudd Wetlands, as well as on the Management of Water and Development of Related Projects**

The process was also successful in that apart from yielding effective citizen participation, consultation, and awareness, it also provided an unprecedented platform in the country for gathering critical scientific information and data on water bodies in general, but also specifically on the White Nile River, its tributaries and the Sudd Wetlands.

## **6.2 Helped in Building Public Trust**

While the decision to resort to a public awareness and consultation process in general received commendable levels of trust among the South Sudanese public, trust and confidence levels in the process became more emboldened upon witnessing rationality and objectivity within the Organising Committee throughout the five days. Many members of the public—among them notable personalities—who initially held scepticism over the process transitioned into loyal enthusiasts and/or supporters of the consultation process. The process acted as a trustee of the goodwill of the South Sudanese people.

## **6.3 Revealed Wealth of Knowledge and Expertise from National Experts**

The public consultation process revealed a great wealth of knowledge and expertise among South Sudanese citizens, ranging from the law and environmental sciences to the humanities; indeed, from hydrology and hydraulics to geography and climatology; from political science and security studies to administration and public speaking; from music and art to poetry and development, among others. This revelation shows that once organised and encouraged, the youthful South Sudanese professionals could be of significant help in the ongoing quest for sustainable peace and development.

## **6.4 Quelling Tension between the Citizens and Government**

Owing to the national outcry over the subject matter of dredging and the Jonglei Canal in the month of June 2022, the public consultation process has practically been crucial in quelling down the otherwise rising tension between citizens on the one hand, and the government on the other. The intervention of the President in the form of the public consultation process helped in quelling the public outcry.

## **6.5 Significant Majority of Participants put National over Personal Interest**

The public Awareness and Consultation process created an important massive learning opportunity, over a critical matter that in ordinary circumstances could have taken longer times to acquire specialist knowledge on. The additional relevance has been that most participants were able to put—and indeed emphasise on—South Sudan’s national over personal interests.

## **6.6 Public Tolerance and Inclusive National Discussion was Achieved**

As stated above, the issue of Dredging and the resumption of the Jonglei Canal brought serious tensions among South Sudanese citizens and within the Government since March 2022. These were underlined by serious public criticisms against both sides in the debate, by using social gatherings, and social media platforms such as Facebook and WhatsApp, where politicians, technocrats, students, and ordinary people pointed hands at one another over these issues. To the advantage of the public and especially the Government, the Consultation process successfully nurtured civility, public tolerance, and a spirit of inclusive national discussion. As such, it quelled the rising tensions among South Sudanese in its own unique way.

## **6.7 Practical Recommendations Brainstormed**

Throughout the consultative process, the Secretariat was able to document Recommendations from the public, Legislature and the Executive which provided actionable suggestions on the way forward. A list is provided in *parts 9 and 11* of this report.

## **6.8 A Working Team for Follow-up and Future Engagements**

As the experts from the fields of law, environment, water resources, hydrology, hydraulics and engineering, meteorology, climatology, and other relevant disciplines have converged during the consultations, there is evidence that a capable team can be assembled to follow up and support the processes of water utilisation, development, management, and control.

# **7. Key Findings**

The five-day public awareness and consultation process led to several key findings, some of which are categorised according to the following topical areas:

## **7.1 Findings on the White Nile, Its Tributaries, and the Sudd Wetlands**

Under this category, the findings are that:

- (a) The Nile, regardless of its various sectional names, has since time immemorial been an important resource for the communities and/or

inhabitants of its basin, across all the riparian countries. For this reason, it has been described as the lifeline of the communities along it.

- (b) Despite additional rains and tributaries along its way, not all of the amount of the water quantity discharged from Lake Victoria in East Africa goes beyond South Sudan. Scientists believe that the remaining quantity of water, in addition to the quantity supplied by other water bodies and rains along its way, replenishes the mighty Sudd Wetlands in South Sudan.
- (c) In the main, the Waters of the Sudd Wetlands naturally evaporate onto the atmosphere, and together with water from transpiration gets carried by winds to the rainforests of south-west South Sudan and beyond. In a continuous cycle, this water later comes back in the form of rains to the Democratic Republic of the Congo, Northern Uganda, and Western Equatoria State in South Sudan, ecologically ensuring sustainable rainfalls for these regions, and equally ensuring sustainable/continuous resupply of waters to the White Nile and the Sudd Wetlands.
- (d) Draining the Waters of the mighty Sudd Wetlands would be permanently catastrophic, not only for the people of South Sudan, but for humanity at large, as the ecological services of the Sudd Wetlands do not benefit South Sudan and the South Sudanese people alone. In particular, that:
  - (i) Draining the Sudd Wetlands would turn Upper Nile into a dry and arid area, similar or akin to a desert.
  - (ii) Draining the Sudd Wetlands would result into the death of very many plants, animals, fishes, and other living organisms, including the extinction from Mother Earth of many species.
  - (iii) While the Sudd Wetlands are within the sovereign rights of South Sudan, it is a unique and historic wetland of international significance and repute. South Sudan needs to be mindful not to temper with the ecological balance of the Sudd Wetlands.
- (e) Recent observations on the situation in Bentiu indicates that the ongoing flooding, even while it could still have occurred, has probably been worsened by two main factors: (1) an overgrowth and subsequent blockage of the Naam waterways by aquatic vegetation, and (2) the bridge over the river constructed by Oil Companies without prior adequate Environmental and Social Impact Assessment (ESIA).

## 7.2 Findings on Dredging, Flooding and Drought

Under this category, the findings are that:

- (a) Throughout the World, dredging has never been designed, or indeed even considered, as a possible solution to flooding or massive overflow of water banks.
- (b) The whole World is currently facing an upsurge in climatic disasters due to global changes in average climatic conditions. As a result, even regions/areas that sometimes experience flooding have recorded levels that have hitherto been unprecedented. Thus, the key point here is that the current flooding is not unique to South Sudan alone.
- (c) Across the globe, governments have come to the aid of public policies rationally informed by science and technology in mitigating adverse effects of flooding and drought. In particular, that:
  - (i) *Dams* could be built in the highlands of water paths/ways to serve as critical reservoirs to prevent flooding downstream.
  - (ii) Apart from *dams built as reservoirs*, other could be designed and built for hydroelectric purposes. Whether designed and built as water reservoirs or for hydroelectric purposes, each has the capacity of serving as a flood mitigation measure.
  - (iii) Whereas dams can act as flood mitigation measures, they would also serve as “granaries” for the safe storage of water for use during moments of drought.
  - (iv) An *Artificial Lake* or a *number of them thereof*, is yet another mitigation measure for both flooding and drought that could be considered. The technology already exists within the reach of South Sudan to embark on any or a combination of these mitigation measures, given the willingness of public decision-makers.



### **7.3 Findings on Legal Parameters Governing Transboundary Water Bodies**

Under this category, the findings are that:

- (a) The colonial 1929 River Nile Treaty and the revised version between Egypt and the Sudan of 1959 do not recognise the rights of the upper riparian countries to the waters of the Nile. As such, these countries claim to have tradition rights over the waters of the Nile and have been opposing major infrastructural development and irrigation works by the Upper Riparian countries on the Nile. Led by Ethiopia, the upper riparian countries oppose these agreements, and are now resisting the stance by Egypt and the Sudan.
- (b) As an independent country, South Sudan must urgently decide where it belongs in this divide over the Nile: whether it considers itself an African country and joins its African Brothers; or as an Arab country on the side of Egypt and the Sudan.
- (c) As the discussions leading to the agreements of 1929 and 1959 did not involve Southern Sudanese, nor the inputs of the same, independent South Sudan need to urgently denounce these documents and make it clear that it is not bound by them.
- (d) Any activity on the Nile or the Sudd Wetlands must ensure compliance with sound internationally agreed water laws and environmental protection regimes.

### **7.4 Findings on Mismanaged Transboundary Water Systems**

Under this category, the findings are that:

- (a) Water bodies, including international trans-boundary systems, could die or cease to exist if not properly managed.
- (b) The Aral Sea, among others, once the fourth largest lake in the whole world, and which was larger and produced more water other resources in 1970 than the current Lake Victoria, shrunk between the 1970s and 1990s, currently leaving a vast desert in its place.
- (c) The shrinking or indeed death of the Aral Sea was caused by irrigation and canalisation carried out by the Union of Soviet Socialist Republics (USSR). In consequence, millions upon millions of fish and aquatic animals perished, including the extinction of many species that were unique to the Aral Sea. The

destruction of the Aral ecosystem resulted into the destruction of human livelihoods, the subsequent displacement of people and communities, and impoverishment.

- (d) Projects relating to the Aral Sea were conceived and began long after the conception of the idea of the Jonglei Canal, which was meant to drain the waters of the Sudd Wetland. By implication, the Sudd Wetlands and indeed the whole country would suffer the same consequences as the Aral Sea and the people that once benefited from the Aral Basin, if South Sudan dares drain this mighty swamp of enormous providence to humanity.

## **7.5 Findings on the Participation of the Public, the Legislature, and the Cabinet**

Under this category, the findings are that:

- (a) Citizens were more awake and alert on the critical issues of dredging, the Jonglei Canal, and overall water resources management, than in the period before the conduct of the public awareness and consultation process.
- (b) Virtually all people in the country, be they citizens or foreigners, were equally concerned about the subject matter of dredging and the Jonglei Canal. Both politicians and members of the general public were divided over the matter. It was/is truly a matter of public and (inter)national concern.
- (c) The open and live public consultation, broadcast through television and on social media platforms, proved to be a huge success, in what has been the first of its kind in South Sudan.
- (d) Overall, many participants across the three segments of the process (*i.e.*, the General Public, the Legislature, and the Cabinet) were both against Dredging and any resumption of the Jonglei Canal.
- (e) Nonetheless, notwithstanding the above position, the majority overwhelmingly agree and thus consent to “clearing and cleaning” as opposed to “dredging” up of the rivers (the White Nile and the Naam River) for purposes of navigation (river transport), under a South Sudan initiation, implementation, and monitoring; as well as under environmentally sustainable parameters consistent with a sound ESIA process.

- (f) Some political leaders and participants were not willing to accept and internalise the scientific presentations and knowledge during consultation process, and were rather adamant about their positions prior to the event.
- (g) Live, broad-based public consultation forums can be an effective tool for South Sudan to make informed decisions on crucial national issues.

## 8. Emerging Issues

The following, among others, are some critical issues that emerged during the public awareness and consultation process:

- (a) There is limited knowledge about South Sudan's water resources and wetland ecosystems.
- (b) Most citizens, including Honourable Members in the two houses of the Legislature, and some Honourable Members of the Executive, reject Dredging, and rather approve of Clearing/Cleaning of the Water Ways to Restore River Transportation, compliant with ESIA.
- (c) There is limited knowledge on Legal Frameworks as they relate to water in general, but more so, as they relate to South Sudan's water resources in particular.
- (d) Throughout the world and in South Sudan in particular, Women, Girls and Children are often the most affected by Climate Change and its variabilities, especially flooding and drought.
- (e) The status of the Memoranda of Understanding (especially those of 2006 and 2021) between the Republic of South Sudan and the Arab Republic of Egypt, underlined by the secret presence of heavy Egyptian dredging machinery and related equipment in Unity State. This issue is even contentious among South Sudanese citizens with the perceived continuous and increasing clandestine presence of Egyptian Government offices and facilities in the country.
- (f) There is lack of or inadequate Institutional Capacity Building of key public institutions such as the Ministry of Water Resources and Irrigation, the Ministry of Justice and Constitutional Affairs, the Ministry of Environment

and Forestry, and the Ministry of Transport (in particular its department of river navigation).

- (g) Concerns about limited Citizen Awareness tools and Enabling Environment or platform, especially in fostering Youth Engagement across the broad spectrum of public affairs. The overwhelming perception gathered during the consultation process indicates that there is considerable disconnect between policies and policy-makers on the one hand, and the citizens and their livelihoods on the other.
- (h) Concerns about limited empowerment and engagement of National Experts in contributing informed opinion to public decision-makers.
- (i) Reported negative effects of previous Dredging activities in some of the Bahr El Ghazal tributaries in Wau.

## 9. Recommendations

The Public Awareness and Consultation process yielded three sets of Recommendations: Immediate, Medium-Term, and Long-Term as indicated in Table 3 below.

S/No	Time of Intervention	Recommendation	Responsible Authority
(a)	Immediate	(i) The consultation process recommends the stoppage of dredging initiative until credible feasibility studies are conducted. (ii) Investment and consultation with the flood affected populations and host communities, particularly in their short-term relocation programmes. (iii) There is a need for the reconstruction of the Rubkona and	R-TGONU

S/No	Time of Intervention	Recommendation	Responsible Authority
		<p>Wengkei bridges to allow water passage.</p> <p>(iv) Facilitate the Ministry of Environment and Forestry in collaboration with the relevant ministries to commission feasibility studies on the Dredging Initiative.</p> <p>(v) Good policies are not implementable without adequate financial resources, and so there is a need for adequate national funding and budgeting for water resources development and management related initiatives.</p> <p>(vi) The contract for clearing and dredging of the Nile should not be single sourced and awarded to a country with adverse and conflicting interest in the White Nile waters and its tributaries.</p> <p>(vii) South Sudan needs to revisit its previous MOUs with Egypt.</p>	
<b>(b)</b>	<b>Medium Term</b>	<p>(i) Both Executive and parliament should form an all-party Parliamentary Committee for water that will focus on the adoption of policies, strategies and action plans, on the White Nile Waters use, development, management, and control.</p>	



S/No	Time of Intervention	Recommendation	Responsible Authority
		<p>(viii) South Sudan needs to fast track the accession to the Nile River Basin Cooperative Framework Agreement (CFA).</p> <p>(ix) The government should commission scientific review of the Jonglei Canal project and bring it to an end.</p> <p>(x) Inclusion of Women's lens in all the processes because women and girls are affected differently by climate change and water issues.</p>	
<b>(c)</b>	<b>Long Term</b>	<p>(i) Knowledge and information are power, and so there is a need to establish water development and management related institutions, specifically focusing on capacity building of our experts and policy makers.</p> <p>(ii) The government should commission studies on the feasibilities of different water harvesting structures, including creation of artificial lakes from rainwater in South Sudan.</p>	<p><b>R-TGONU</b></p> <p><b>R-TGONU</b></p>

## 10. Lessons Learnt during the Consultation

- (a) Citizens were more awake and alert than before on the issues of water.

- (b) Both politicians and members of the general public were divided over the issue of Dredging.
- (c) In the future, there is need to be more careful and thoughtful about managing expectations.
- (d) Semantics and terminology may sometimes be confusing. A glossary of key terms and expressions would be helpful in the future.
- (e) Some invited guests who were originally not on the list of speakers, took the floor and went long-winded. Better control is needed by moderators on such public consultations in the future.
- (f) On the last day (Day 5) of the awareness and consultation process, some guests with power intimidated the participants and the Organising Committee. While they all remained steadfast, it is advisable that this does not happen in future such engagements.
- (g) Women participation in the podium and the floor could have been better.
- (h) Funding for the event could have been better.
- (i) The daily sessions were very long.
- (j) The open and live public consultation process proved to be a success and was the first of its kind in South Sudan.
- (k) The significant majority of the participants were against Dredging and the possible resumption of the Jonglei Canal.
- (l) There was need to better explain that there is no connection between the Jonglei Canal and flooding. The Jonglei Canal was a colonial concept and, while floods are a natural phenomenon.
- (m) Clearing and Cleaning up water ways for navigation purposes was acceptable from many participants.
- (n) Some political leaders and participants were not willing to accept and internalize scientific presentations during consultation.
- (o) Live public consultations can be an effective tool for South Sudan to make informed decisions on crucial national issues.



(p) Dredging is not a solution to flooding.

## **11. Way Forward**

### **11.1 Overall Observations on the Way Forward**

The panel of experts, both national and international, became aware of the bumpy road ahead for the R-TGONU if they decide to go ahead with sweeping reforms and structural adjustments to their water policies, water politics, and regional water interdependencies of the running and permanent wetlands within their territorial boundaries. Both the exogenous and endogenous components of hydrology and hydraulics will need sweeping reforms. A whole of government (R-TGONU) approach rather than the departmental or ministerial approach will be needed. Water security of any nation is part of their national security.

Strong and well-funded institutions will need to be established. Checks and counterchecks of the performance of those institutions will need to be established and enabled to guard the interests of the Nation, especially in as far as development and water security are concerned.

### **11.2 Specific Recommendations on the Way Forward**

An array of specific recommendations came out of the 5-day deliberations:

- The relevant institutions of South Sudan need to study all the African Basins' Agreements and Cooperation Protocols. There are at least 27 known such protocols. Most of them are from the colonial era.
- Be aware of how and why these colonial agreements are important by studying the International Court of Justice rulings on Badme (Eritrea and Ethiopia) and the Bakassi Peninsula (Nigeria and Cameroon).
- Start full research and study of International Law on water which is very weak. (Starting with the Helsinki Rules).
- Build a library of records and archives from the British Archives, the University of Durham, and other sources.

- Embark on serious institutional capacity building for the Legal and Water cadre of South Sudan and engage Universities.
- Forge professional alliances with well-working river basins around the world for lessons learnt. For example, St Lawrence, Danube, Rhine, Zambezi, *etc.*
- As there has been separation from Sudan in 2011: How to share the 18.5 BCM allocated to the “Old Sudan”? At what ratio? What is the criteria? What are the cons and pros of raising such an issue? While South Sudan may not need such a share of the 18.5 BCM, it can be used as a bargaining chip.
- What are the rights and benefits of South Sudan from the Nile Waters passing through or originating from its territory?
- Bahr El Ghazal Basin (BGB) is to be well guarded as it originates, runs, and discharges in and within South Sudan. There can be no territorial claims to any of its waters.
- If the Sobat River and its tributaries are well studied and researched, 12 billion cubic meters of water can be stored behind a dam in the Ethiopia highlands. This can irrigate the entire Jonglei plains and generate over 300 MW of electricity.
- On the water politics, South Sudan needs to determine who the partners are and who are the allies? And who are those that South Sudan needs to watch.
- South Sudan needs to sign on and ratify the Cooperative Framework Agreement (CFA) of the Nile Basin Initiative (NBI) and mutually cooperate with the fellow Upper Riparian African countries of East Africa (including Ethiopia) and the Lakes Region. This should be under article 14b as agreed by the 9 African countries and opposed by Egypt and Sudan.
- Prepare to have policy on how to deal with the Sudd waters. The glaring option is to do nothing for now; but that needs verification.
- Stop Dredging anywhere in South Sudan and maintain the status quo until South Sudan conducts credible feasibility studies and generates best courses of action. For credible feasibility studies, see the attachment below.

- Nature and Eco-Systems never give anything for free. What is the “cost” of Dredging and Draining the Bahr El Ghazal Basin and the Jonglei Canal?
- **The Nile Hydro-Politics are not an issue for politicians to play with. It is an issue of National Security.**
- The White Nile waters are not an issue for one ministry to deal with alone. It is part of the “National Natural Resources” of the country. It may be the most important and most durable and renewable one.
- Friendly Nations looking for the long-term welfare of South Sudan must be called upon to help regardless of political disagreements on governance and other issues.
- Purchase a fleet of Caterpillar D8s and D9s and backfill the already dug 270km of Jonglei Canal and wipe it out of the surface of Earth.
- Consider and promote strategic mutual cooperation with the Upper Riparian countries on water and hydropower in meeting the developmental and energy security needs of South Sudan.
- Form an all-party Parliamentary Committee on Water Resources, Environment and Ecology to be chaired by the President of the Republic for a number of years.
- Appoint a *knowledgeable water laws-oriented Legal Advisor* to the Ministries of Water Resources and Irrigation, and the Ministry of Environment but accountable to Minister of Legal Affairs to have credible legal oversight.
- Study and pay attention to the UN Convention on the Law of the Non-Navigational Uses of International Watercourses of 1997, Vienna Convention on Succession of States in respect of Treaties, 1978 of 23/8/78 that entered effect on 6/11/96.
- Avail or seek funding to do both Resource Evaluation and update/modernize/complete a water policy document for 20-30 years.

- By Presidential Decree, establish a National Water Authority headed by the Head of State.
- Enshrine water security and the protection of water resources and sources in the federal/national and state constitutions with the total supremacy of the Federal authority over the States authority.
- Embark of staggered but sustained Institutional Capacity Building of all the ministries and commissions dealing with water resources.
- Avail seed funding and lobby for donor funding to establish a Water Institute, Water Analysis Laboratories, Soil Mechanics Laboratories.
- **Taking the Responsibility to Safeguard Our Water Systems Seriously:** South Sudan should take steps to safeguard and protect our river systems. At the moment, the importance of taking charge and protecting our waters is not taken seriously. To be in a position to take charge of protecting our river systems and utilize our waters to the best interests of the people of South Sudan, the Government should take the recommendations of the experts very seriously. This includes the establishment of the South Sudan Water Authority, gather and study all water agreements signed by the former Sudan, as well as acceding to the Cooperative Framework Agreement (CFA), just to mention but a few.
- **Establishment of Water Institute:** The President should establish South Sudan's Water Institute affiliated to any of public university in South Sudan.
- **Engaging Upstream Countries:** The President should rigorously engage regional leaders on the issue of Nile Waters. Egypt seems to be more interested in pursuing a bilateral agreement with South Sudan, much to the exclusion of other riparian states.

### 11.3 The Senior Consultant's Recommendations on Emerging Issues

- (a) The MWRI is under-funded. For such important ministries dealing with valuable natural resources, a minimum of 5% of the annual budget is to be allocated and paid to them.
- (b) The same goes for the Ministry of Environment and Forestry.

- (c) Both ministries need a rapid injection of funds to develop their institutional capacity. \$500,000 for each is minimum.
- (d) The Ministry of Justice and Constitutional Affairs will need massive capacity building starting with a modern library, internet connections, training centre among others. They need to engage with credible international institutions on the disciplines of drafting constitution. Issues of Compatibility, Complementarity, compliance, concurrency, subsidiarity supremacy and supplementary are some of the areas needing capacity building. The Senior Consultant shall work to engage the International Forum of Federations to help the Ministry of Justice and Constitutional Affairs.
- (e) Extend the contractual term of the Senior Consultant and other selected consultants as needed to continue engagement to help with the institutional capacity building and building archives and records in the Ministry of Water Resources and Irrigation, Ministry of Environment and Forestry and Ministry of Justice and Constitutional Development.
- (f) Retain the core team of the secretariat for follow up and to assist the senior international and national consultants.
- (g) The Engineering Corps of the SSPDF need to be engaged as back up and supervisory body for the contracting activities of the MWRI and the Ministry of Environment and Forestry.
- (h) The presidency may consider an in-house trusted consulting and advisory team for 6 months to assist the presidency in negotiating any bumpy rides that may pop up from disgruntled neighbouring countries.

## 12. Annexure

The following is the list of the annexure to this Report, included herein according to the same sequence:

- Annex 1: Public Communique -Endorsement of the Recommendations made by the Experts**
- Annex 2: Program for the Consultation Process**
- Annex 3: Summary Minutes of the Five-day Consultations**
- Annex 4: Questions asked by participants**
- Annex 5: Feedback from the participants**

**Annex 6: Summary of attendance**

**Annex 7: List of the Sudd Wetlands Public Awareness and Consultation Committee**

**Annex 8: President's Speech for Independence Day**

**Annex 9: SWWDMI Press Statement**

## **Annex 1**

### **Public Communique: Endorsement of the Recommendations Made by the Experts**



## COMMUNIQUÉ

**Having** been appropriately briefed on the concepts of dredging, cleaning and other water control, development and management practices, from 10<sup>th</sup>-12<sup>th</sup>, 2022, during the **Public Consultation awareness on the SUDD Wetlands and the White Nile Water Resource Development as well as Management Initiative** at the Freedom Hall in Juba, under the leadership of Mr. Akoch Akuei Manhiem;

and,

**Inspired**, by the objectives of the public consultation awareness aimed at promoting consciousness among the people of South Sudan and the protection of their constitutional right to natural resources by the government;



**We**, the undersigned representatives of the civil society organisations, youth, faith-based and academia.

- 1. Laud**, the leadership of H.E. President Salva Kiir Mayardit for halting and commissioning scientific and credible feasibility studies on the dredging initiative under the lead Ministry of Environment and Forestry.
- 2. Grateful** to President of the Republic for initiating the Public Consultation and awareness on the Sudd Wetlands and the White Nile waters;
- 3. Relieved** by the readiness of the Government of South Sudan to accommodate diverging views expressed by the citizens on the issues affecting their welfare and livelihoods, particularly,



at the crucial phase of the implementation of the Revitalized Agreement on the Resolution of Conflict in South Sudan (R-ARCSS);

4. **Deeply appreciate** the sincerity of the experts who skillfully sensitized the public on the much-needed scientific information and all relevant data related to water resource development and management;
5. **Urge** the public to remain calm in order to allow the national government to conduct credible and professional feasibility studies on the impact of dredging as commissioned by His Excellency in his July 9<sup>th</sup>, 2022, State of the Nation Address, with the support of diverse national institutions, international partners and individual experts on water resource development and management.
6. **Look forward** to a new round of public hearing on the findings of the commissioned feasibility studies on the proposed dredging activities in the Sudd region and Nile basins;
7. Fully endorse the recommendations by experts during the three-day public awareness and consultation;
8. Remain seized of the matter;

S/N	Name	Institution	Signature
1.	Amer Manyok Deng	Civil Society	
2.	Manyang Gatluak Bany	Youth	
3.	Bishop William Lodu Upendo	Faith-based	
4.	Deng Kur Mading	Representative of Students	
5.	Nyamach Hoth mai	Representative of Independent Researchers	

**Annex 2**  
**Program for the Consultation Process**

# THE REPUBLIC OF SOUTH SUDAN



PUBLIC AWARENESS AND CONSULTATION ON  
THE SUDD WETLANDS & THE WHITE NILE WATER RESOURCES DEVELOPMENT AND MANAGEMENT INITIATIVE  
(SWWDMI)

Juba, July 10-14, 2022

**THEME: "No Life without Water": Develop and manage the White Nile Water Resources and the Sudd Wetlands sustainably**

## PROGRAMME

TIME	ACTIVITY	SPEAKERS
<b>DAY 1 (SUNDAY- 10/07/2022)</b>		
<b>Overview of the three water basins and its tributaries and water governance in South Sudan</b>		
08:00 – 09:00	Arrival of Guests & Registration	
09:00 – 9:30	Opening prayers	1. Christian Priest/Father 2. Islamic Imam
09:30 –09:40	Welcoming remarks by Chairperson	Mr. Akoc Mahniem
9:40 – 09:50	Remarks by Minister for Presidential Affairs	Hon. Barnaba Marial Benjamin
09:50 – 10:05	Official opening of the Initiative	H.E President Salva Kiir Mayardit
10:05 – 10:15	Remarks by Representatives of the Ministry of Water Resources and Irrigation	Minister or Undersecretary
10:15 – 10:25	Remarks by Representatives of the Ministry of Environment and Forestry	Minister or Undersecretary
<b>10:25 – 11:30</b>	<b>Session 1: Overview of the three river basins and its tributaries In South Sudan</b>	<b>Prof. Tag Elkhazin</b>
11:30 – 12:15	Commentaries/questions and answers	Experts and public
12:15 – 01:00	Interlude (SS Musician)	Moderators
1:00 – 02:00	<b>Lunch Break</b>	
12:30 – 01:00	Summary of session 1	Repportuer
02:00 - 02:45	<b>Session 2: Water Governance : national , regional and international legal frameworks</b>	Amabasador Salwa Gabriel Berberi
02:45 - 03:30	Commentaries/questions and answers	Moderators
03:30 - 04:30	<i>Music Interlude/Cultural Dance</i>	Moderators
04:30 – 05:00	<i>Summary of Session 2 and key discussions for then day</i>	Rapporteurs
	<b>Closing</b>	
	<b>End of Day 1</b>	

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# THE REPUBLIC OF SOUTH SUDAN



PUBLIC AWARENESS AND CONSULTATION ON  
THE SUDD WETLANDS & THE WHITE NILE WATER RESOURCES DEVELOPMENT AND MANAGEMENT INITIATIVE  
(SWWDMI)

Juba, July 10-14, 2022

**THEME: “No Life without Water”: Develop and manage the White Nile Water Resources and the Sudd Wetlands sustainably**

## PROGRAMME

DAY 2 (Monday– 11/07/2022)		
<b>Water Resource Development and Management: hydrology, hydro-geology, hydraulics, the sudd and the socio-economic and environmental implications (Dredging, drains, dyke, canals, Dams , and others)</b>		
08:00 – 09:00	Arrival of Delegates/Registration	
09:00 – 9:05	Opening prayers	Moderators
09:05- 09:20	Recap	Agook & Nyachangkuoth
09:20-10:05	<b>Session 2A: Water Governance : national , regional and international legal frameworks</b>	<b>Dr. Salwa Gabriel Berberi</b>
10:05-10:25	<b>Session 2B: The Sudd and the International/regional water Laws</b>	<b>Prof. Tag Elkhazin</b>
10:25-10:35	<b>Short Presentation: The Debates on the Nile water projects:Legal and Policy considerations</b>	Moulana Deng Abraham Akech
10:35- 10:40	Commentaries	Dr Santino Ayuel Longar
10:40- 11:20	questions and answers	
11:20 – 12:00	<b>Session 3A: The Sudd ecosystems, affected people, socio-economic value and water resource management</b>	<b>Deng Majok Chol</b>
12:00– 12:20	<b>Session 3B: Aqua development - navigation</b>	<b>Prof. Tag Elkhazin</b>
12:20 – 12:30	<b>Commentaries</b>	<b>Nhial Tiitmamer and Dr. Salwa</b>
12:30 – 01.00	Summary and discussions with the public	Moderators
01:00 – 02:00	<b>Lunch Break</b>	
02:00 – 02:05	<i>Interlude</i>	<i>Duop Pur Duop</i>
02:05-02:50	Session 4A: Different aspects of water resource utilization and control (Objectives of different water infrastructure/ works in a river system (Canal, Dams, dikes and drains))	Eng. Isaac Liabwel
<b>02:50 – 03:10</b>	<b>Session 4B: Pros and Cons of the Jonglei Canal</b>	<b>Deng Majok Chol</b>
<b>03:10 – 03:20</b>	<b>Commentaries</b>	<b>Aliex Oka &amp; Victor Wurda</b>
03:20 – 04.00	Public opinion and discussions	Moderators
<b>04:00 – 04:10</b>	<b>Interlude 4- Music</b>	<b>Koth Akoon &amp; Lengs</b>
04:10– 04:45	Concluding Remarks	
04.45 - 05.00	<b>Closing</b>	
	<b>End of Day 2</b>	

# THE REPUBLIC OF SOUTH SUDAN



PUBLIC AWARENESS AND CONSULTATION ON  
THE SUDD WETLANDS & THE WHITE NILE WATER RESOURCES DEVELOPMENT AND MANAGEMENT INITIATIVE  
(SWWDMI)

Juba, July 10-14, 2022

**THEME: “No Life without Water”: Develop and manage the White Nile Water Resources and the Sudd Wetlands sustainably**

## PROGRAMME

DAY 3 (Tuesday- 12/07/2022)		
Feasibility Studies and collating of public views		
08:00 – 09:00	Arrival of Delegates & Registration	
09:00 – 9:10	Opening prayers	Master of Ceremony
9:10-9.30 am	Presentation from the Ministry of Environment and Forestry	Ministry of Environment and Forestry
<b>09:30 – 10:15</b>	<b>Session 5: Essential components of an inclusive and credible feasibility study</b>	<b>Prof. Tag Elkhazin</b>
<b>10:15 – 10:45</b>	<b>Importance of Environmental and Social impact Assessment (ESIA) procedures, a case of Bentiu-Rubkona bridge</b>	<b>Yong Kuai</b>
<b>10:45 – 11:15</b>	Commentaries	<b>Deng Majok Chol, Dr. John Leju</b>
11:15 – 12:00	Public discussions	Moderators
12:00 – 12:30	Music Interlude- 5	Prince Paul
12:30 – 01:30	<b>Lunch Break</b>	
01:30 – 01:45	Summary of key discussions from session 5 and 6	Rapporteur
01:45 – 02:45	Plenary discussions (All experts plus Ministry of Water & Irrigation, Environment and Forestry) 1. Sessions 1-6 summaries 2. Recommendations	Moderators
02:45 – 03:45	Music Interlude - 6	Duop and Koth Akoon
03:45 – 04.00	Summary of Key discussions of the public awareness and consultation	Rapporteur
04.00 – 04:15	<b>Closing</b>	
	<b>End of Day 3</b>	

# THE REPUBLIC OF SOUTH SUDAN



PUBLIC AWARENESS AND CONSULTATION ON  
THE SUDD WETLANDS & THE WHITE NILE WATER RESOURCES DEVELOPMENT AND MANAGEMENT INITIATIVE  
(SWWDMI)

Juba, July 10-14, 2022

**THEME: “No Life without Water”: Develop and manage the White Nile Water Resources and the Sudd Wetlands sustainably**

## PROGRAMME

DAY 4 (WEDNESDAY– 13/06/2022)		
<b>Presentation to the Revitalized Transitional Legislative Assembly and the Council of States</b>		
<i>Arrival of Delegates and Registration</i>		
08:00 – 09:00		
09:00 – 9:05	Opening prayers	Master of Ceremony
09:05 – 09:10	Opening Statement from the Chair of the Committee	Mr. Akoch Mahniem
09:10 – 09:15	Remarks from the Speaker, COS	Rt.Hon. Nunu Jemma Kumba
09:15 – 09:20	Remarks from the Speaker, TNLA	Rt Hon. Mary Ayen Mijok
09:20 – 09:25	Minister of Presidential Affairs	Dr Barnaba Marial Benjamin
09:25 – 12:30	<ol style="list-style-type: none"> <li>1. <b>Overview of the While Nile Basin and its tributaries and associated Governance</b></li> <li>2. <b>Water Resource Development and Management: hydrology,hydro-geology, hydraulics,the sudd and the socio-economic and enviromental implications (Dredging, drains, dyke, canals, Dams , and others)</b></li> <li>3. <b>Feasibility Studies and collating of public views</b></li> </ol>	<ul style="list-style-type: none"> <li>• <b>Prof. Tag Elkhazin</b></li> <li>• <b>Dr Salwa Beriberi</b></li>   <li>• <b>Mr. Deng Majok Chol</b></li> <li>• <b>Eng. Isaac Liabwel</b></li> <li>• <b>Dr. John Leju</b></li>   <li>• <b>Mr. Yong kuai</b></li> <li>• <b>Mr. Alier Oka</b></li> </ul>
12:30 -12:40	Q&A	Moderators
12:40 – 01:00	Music Interlude	Koth Akoon and Mr Leng
<b>Lunch Break</b>		
01:30 – 02:00	Music Interlude/Cultural Dance	Duop and DJ - Prince Paul,
02:00 – 03:30	Plenary Discussions – Q&A	Moderators
03:30 -04:00	Summary and recommendations/ Communique	Secreatariat
04:00 – 04:30	Chair of the Committee, Speakers of August house closing remarks	
04.30 - 05.00	<b>Closing</b>	
<b>End of Day 4</b>		

# THE REPUBLIC OF SOUTH SUDAN



PUBLIC AWARENESS AND CONSULTATION ON  
THE SUDD WETLANDS & THE WHITE NILE WATER RESOURCES DEVELOPMENT AND MANAGEMENT INITIATIVE  
(SWWDMI)

Juba, July 10-14, 2022

**THEME: “No Life without Water”’: Develop and manage the White Nile Water Resources and the Sudd Wetlands sustainably**

## PROGRAMME

DAY 5 (THURSDAY- 14/07/2022)		
Presentation to the Cabinet		
Arrival of Delegates and Registration		
08:00 – 08:30		
08:30 – 09:00	Opening prayers	Master of Ceremony
09:00 – 09:10	Opening Statement from the Chair of the Committee	Mr. Akoch Mahniem
09:10 – 09:20	Remarks from the Minister for Information and telecommunication and representative of minister of Presidential Affairs	Hon.. Michael Makuei
09:20 – 09:30	Official opening remarks from FVP and the chair of the Governance cluster	H.E Dr. Riek Machar Teny
09:30 – 10:15	<b>Overview of the White Nile Basin and its tributaries and associated Governance</b>	<ul style="list-style-type: none"> <li>• Mr. Deng Majok Chol</li> <li>• Dr. Salwa Gabriel Beriberi</li> </ul>
10:15 – 11:15	<b>Water Resource Development and Management: hydrology, hydro-geology, hydraulics, the sudd and the socio-economic and environmental implications (Dredging, drains, dyke, canals, Dams, and others)</b>	<ul style="list-style-type: none"> <li>• Dr. John Leju Celestino</li> <li>• Eng. Isaac Liabwel</li> </ul>
11:15 – 11:30	<b>Feasibility Studies and collating of public views</b>	<ul style="list-style-type: none"> <li>• Prof. Tag Elkhazin</li> <li>• Mr. Yong Kuai</li> </ul>
11:30- 12:00	<b>Q&amp;A</b>	<b>Moderators</b>
12:00 – 12:50	Summary of the public consultation and Legislature interaction	• Rapporteur
	Recommendations	• Rapporteur
12:50 – 1:00	Music Interlude/Cultural Dance	Duop and Koth Akoon
Lunch		
01:00 – 02:00		
02:00 – 02:30	Music Interlude/Cultural Dance	Lengs and Prince Paul
02:30 – 03:30	Q&A	Moderators
3.30 - 4:00	<b>Closing</b>	
<b>End of Day 5</b>		

**Annex 3**  
**Summary of Minutes of the Five-day Consultations**



# The Sudd Wetlands and the White Nile Water Resources Development and Management Initiative

## Public Awareness and Consultation Process 10-14 July 2022 Freedom Hall – Juba

### Overview of the Summary Minutes:

10<sup>th</sup>-14 July 2022

**Time 11:42 AM**

**Day one and two: Public Consultation**

**Agenda items:**

Phase one, two, three, four, and five:

<ul style="list-style-type: none"><li>• <b>Welcoming remarks</b> Who on behalf of organizing team and on his own behalf appreciate and thanks all concerned citizens for turning up in large numbers to come and listen from the experts about the advantages and disadvantages of dredging and resumption of Jonglei canal project as well. He introduces all the team members starting from Service, Security, protocol to Secretariat and humbly request them to come forward and concludes with wholehearted gratitude and vow acceptance of the assignment given to by H: E Gen. Salva Kiir Mayardit president of the republic to lead as head of public consultation team.</li></ul>	<p><b>Cde. Akoc Akuei.</b> Chairperson of organizing committee</p>
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<ul style="list-style-type: none"> <li>• <b>Opening speech.</b> I acknowledge the presence of our national and International experts who will be with you through these five days' consultation, he added that it gives me great pleasure to speak to you this morning, to welcome you most cordially to the official opening of the five-day public consultation on Nam river dredging and Jonglei canal project which have caused public outcry but our president H: E Gen.Salva Kiir Mayardit. Initiated this public consultation. You are free to express your views freely adding that this is not political forum but scientific quest for lasting solution to the problem of flooding in some parts of the country. He officially declared the meeting open at 11:42 AM. Here are your experts learn from them and participate accordingly.</li> </ul>	<p><b>Hon. Dr. Barnaba Marial Benjamin, Minister of Presidential Affairs</b></p>
<ul style="list-style-type: none"> <li>• <b>Presentations:</b> Overview of White Nile Basin and its tributaries and associated governance</li> <li>• Water Resources Development and management, hydrology, hydro-geology, hydraulic, the sudd and the social economic and environmental implications dredging, drains, dykes, canal dams, and others</li> </ul>	<p><b>Prof. Tag Elkhazin. Mr. Chol Majok Deng</b></p>

<p><b>Reactions from public</b></p> <ul style="list-style-type: none"> <li>• After presentation session, many points were raised about credibility of dredging and alleged resumption of Jonglei canal project. Questions such as how do dredge machines arrived in the country without government knowledge? Does dredging stop flooding? And what is the law governing our Nile water?</li> </ul>	<p><b>National and International Expert's Response</b></p> <ul style="list-style-type: none"> <li>• provides answers to the tough questions raised, technical recommendations and advised the government to thoroughly conduct sound and credible feasibility studies before undertaking project actions.</li> </ul>
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<p><b>Day two. opening remarks followed by Presentation on;</b></p> <ul style="list-style-type: none"> <li>• Water governance: National, Regional and international legal frameworks</li> </ul>	<p><b>Dr. Salwa Gabriel</b></p>
<p><b>Reactions from the plenary</b></p> <ul style="list-style-type: none"> <li>• The public questioned whether there is law governing our water resources since secession from Sudan in 2011 and also reject the ideas of controlling floods through dredging and by Egyptian authorities too.</li> </ul>	<p><b>National Experts Response</b></p> <ul style="list-style-type: none"> <li>• Cited the importance made before independence such as the decolonization and its impact on international law (UNGA Res. 1514 1960) and lack of recognition of importance of water resources in our transitional constitution of the republic of South Sudan 2011 as amended.</li> </ul>

**The Detailed Minutes of the whole five-day consultation process are as shown in the following pages.**



THE SUDD WETLANDS & THE WHITE NILE WATER RESOURCES DEVELOPMENT AND MANAGEMENT INITIATIVE  
(SWWDMI)

THEME: “No Life without Water”: Develop and manage the White Nile Water Resources and the Sudd Wetlands sustainably

**SUMMARY OF MINUTES FOR THE 5 DAY CONSULTATIONS**

International Experts Presentations Minutes

**A. Professor Tag Elkazin**

**1. Presentation No1 The basins of the Nile Waters in South Sudan**

- i. Bahr El Jebel Basin (The White Nile)
- ii. Bahr El Ghazal Basin
- iii. Sobat basin
- iv. **Other basins up north in Sudan**
- v. Blue Nile Basin
- vi. Atbara Basin
- vii. Diner Basin and other smaller basins and rivers

**2. Exchange of Notes between UK and Egypt”:**

- i. Egypt had the right to 48 BCM of water annually and
- ii. Sudan and South Sudan had the right to 4 BCM of water annually
- iii. Sennar Dam was completed and waiting for the agreement since 1925

**3. Sources of water into South Sudan**

- i. Ethiopia about 80-86%, of which Sobat delivers 12-15%. Ethiopia not only Blue Nile
- ii. The Lakes Region, about 14-16% (In spite of the large discharge from Lake Victoria)
- iii. Other sources en-route, 4%

THE REPUBLIC OF SOUTH SUDAN



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**SUMMARY OF MINUTES FOR THE 5 DAY CONSULTATIONS**

**4. Nile Basin Countries**

- i. Burundi (Charges!!!!)
- ii. Democratic Republic of Congo
- iii. Egypt
- iv. Eritrea
- v. Ethiopia
- vi. Kenya
- vii. Rwanda
- viii. Sudan
- ix. South Sudan (90% SS Falls within Nile Basin)
- x. Tanzania
- xi. Uganda

**5. Ownership of Nile Waters from 2011**

- i. 1929 is silent on that although the idea of Jonglei Canal (s) was developed in 1904
- ii. 1959 talks about sharing any additional discharge from projects or natural rises in lake Victoria 50-50 between Sudan and Egypt, but the issue of “Rights and Ownership” of the source of additional waters is not specified
- iii. 2005 CPA is silent about stagnant water rights as the issue could have torpedoed the talks under IGAD
- iv. By “default”, the stagnant water belongs to the Peoples of South Sudan.

**6. Potential use of the White Nile Waters in South Sudan**

- i. The Sobat (Baro-Pibor) Valley: 2-3 BCM of water for mechanized irrigation. Granary of South Sudan. Can cultivate ½ the size of the Gezira Scheme. Only location in SS

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**SUMMARY OF MINUTES FOR THE 5 DAY CONSULTATIONS**

- ii. Sobat River: Can dam 12 BCM of water and can generate about 250 MW of hydro at a manageable cost within the absorption capacity of South Sudan. (Eastern Bank)
  - iii. Sobat can only be dammed in Ethiopia  
Bahr El Jebel can generate between 240 to 705 MW hydro at Fula rapids in Nimole. (All Equatoria/Bahr El Ghazal). (German Study)
7. What are the currently known Nile Agreements that may/may not affect South Sudan past 2011:
- i. 1906 Anglo Free Congo (Belgium)
  - ii. 1949 Owen Falls
  - iii. 1952 Owen falls
  - iv. 1993 Egypt Ethiopia. Strange agreement!!
  - v. 1994 Victoria Fisheries
8. Rights and Benefits (Basis of NBI)
- i. Must first know what the rights are: How much water is generated in SS? Any rights in other water passing through SS?
  - ii. Must participate in deciding what the benefits are
  - iii. Where does/would SS lie in the clear division of East Nile and Lakes Nile?
  - iv. Is anybody serious about funding the huge sums (Billions) needed to compensate countries of "rights" with "benefits" equitably with their rights and needs/new needs? 1959? NO!
9. Who uses that water and who does not?
- i. 98% of Egypt's agriculture is dependent on Nile Waters
  - ii. 15% of Sudan's agriculture is dependant on Nile Waters (100% in the North)
  - iii. Less than 1% of South Sudan Agriculture is dependant on the Nile



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## SUMMARY OF MINUTES FOR THE 5 DAY CONSULTATIONS

- iv. 3% of Ethiopia’s agriculture is dependent on Nile Water (or other rivers water).  
Why:
- v. The World Bank and other institutions blocked any funding unless Egypt gave its no-objection.
- vi. There was no regional backing for Ethiopia, especially from Sudan (hands tied by the 1959 agreement).

10. **Hydrology**: It is the Q, the discharge. The quantity of water.

- i. **Hydraulics**: Is the energy in the water. The head. The drop. The Megawatts.
- ii. **Jonglei Canal is not a Stand-Alone issue!!**

11. **The SUDD and Wetlands of Central South Sudan West of the Nile**

- i. The catchment of the Wetlands is estimated at 30,000 to 70,000 Square Kilometres (SQK). (Different estimates). The actual flood reservoir is estimates at 30,000 SQK
- ii. 14,000 SQK of that is seasonal with peak discharge around August
- iii. 16,000 SQK of that is permanently flooded with water from Lake Victoria and other sources
- iv. The estimated quantity of water in the SUDD is 30 BCM or 1/3 of the total discharge at the High Dam

12. **Bahr El Ghazal Basin – I**

- i. Sue, Bussari, Jur, Lol, Tonj, Ragaba Al Zarga, Pongo, Geti, Get, Wokko, Naaam and Kiir, 100% SS
- ii. Huge “Spill-over” from B. Jebel Basin north of Shambe estimated at 6BCM creating a link between the 2 swamps. (Target of Jonglei I)
- iii. Estimated area of basin 16,800 SqK. Total discharge 15.7 BCM (same as Sobat).
- iv. East of Jur: edges and part of the Wetlands (SUDD)





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**SUMMARY OF MINUTES FOR THE 5 DAY CONSULTATIONS**

v. Warrap and Lakes are pastoralists land

**13. BAHR EL GHAZAL BASIN-II**

- i. What does “Dredging” do?
- j. Positive
- k. Negative
- l. Why B Ghazal Basin for dredging?
- m. What are the impacts of dredging?
- n. Why the hurry?
- o. Why did President Kiir cut his trip to Egypt short?

**14. Water Policy of South Sudan (2)**

- i. Page 16: There is no single official document which brings together existing policy and legislation relevant to water resources management and utilisation in South Sudan....
- j. Page 17 and 18 lists 12 major challenges facing South Sudan. Not ONE has been addressed
- k. Pages 21, 22 and 23 list 19 bullets relating to “Guiding Principles for Water Resources Management: None deals explicitly with Nile Waters
- l. -Bullet 3-2-7 “To streamline institutional and legal frameworks relating to water resources management with clear separation of functions, roles and responsibilities”. Highlight Capacity Building Project under discussion with the JDT and Legal Affairs and Constitutional Development of GOSS
- m. Page 26: GOSS will need to undertake a detailed assessment of its own needs and priorities with regard to “development” of Nile waters. “Technical understanding” of “Status” and “trends in the availability” and “use” of Nile Waters.... Due to lack of scientific research



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## SUMMARY OF MINUTES FOR THE 5 DAY CONSULTATIONS

- n. Page 27: GOSS shall take all the necessary steps to establish a supporting “legal and regulatory framework” to enable efficient and effective functioning of newly established water resources management institutions in SS

### 15. Floods control

- I. Floods need dikes, not canals. No relationship whatsoever
- II. Dikes are designed through satellite imagery, identifying catchments, run-offs, Discharge
- III. Flood are not rivers. Will change direction
- IV. If there is a will, professional consulting and technical advice, funding, expertise, floods can be prevented through dikes

### 16. What is a Haffir?

- i. How is it studied? Who can study it?
- j. How is it constructed?
- k. How long can it live useful?
- l. How can it be dredged/re-dredged?
- m. What about capacity?
- n. Aligning Haffirs in series along grass roots.
- o. Haffirs for conflict mitigation
- p. Haffir management by locals.

### 17. Economic impact and value-added feasibility:

- i. Is it worth it to go the one way or the other?
- j. Does it add value to South Sudan?
- k. Will it create better and more conducive atmosphere for investment?
- l. **Cost and benefit feasibility:**
- m. If we do the project, will we get out of it more than we spent on it?



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**SUMMARY OF MINUTES FOR THE 5 DAY CONSULTATIONS**

**18. Peace and conflict impact assessment:**

- i. If we implement the project in conflict or conflict prone areas: Will it exacerbate conflict?
- j. Are there mitigating measures we can consider?
- k. Are there legacies of conflict we need to consider?

**19. Ecological, Climate and environmental impact assessment**

- i. What are the internal national and natural factors?
- j. What is the “Unavoidable”?
- k. How do we adapt to the “Unavoidable”? Or mitigate it?
- l. What are the best practices and lessons learned from other nations?
- m. How and where will the project have fallout?

**20. Women’s lens and impact on women:**

- i. The forgotten heroes. The backbone of communities. How will they be affected?
- j. Men go to fight or rear cattle; women keep life going.
- k. Women and children are inseparable: How will children be affected?
- l. Have they been consulted?
- m. Indigenous population and a referendum

**21. Political risks impact assessment (Unintended negative Impacts)**

- i. Will the dwellers of SUDD feel aggrieved?
- j. If not properly consulted, will they feel their government is ignoring them?
- k. Will or will not their support for their government be changed?
- l. May there be endogenous (Internal) political factors that affect the political landscape?
- m. Or exogenous (External) political factors that affect the political landscape?

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**SUMMARY OF MINUTES FOR THE 5 DAY CONSULTATIONS**

n. May political alliances possibly shift due to the project?

**22. Water Security impact assessment**

- i. Will the project reduce or increase the parameters of water security of SS?
- j. Can the principle of “rights and benefits” come into play thus South Sudan gains satanically from passing water on to other users?
- k. Has patterns of climate change been factored into water security?
- l. Has the study modelled a trajectory of water security for the next 50 years? 100 years?

**23. Collateral damage impact assessment (Case for Western Equatoria and the Green Belt**

- i. Will the heavy rainfall in West Equatoria be affected
- ii. ( Explain Green belt).
- iii. Will rains in Northern South Sudan (Abyei) and South Darfur be affected? (Explain change of wind direction)
- iv. Will Um Rawaba series in South Sudan be affected? (Sow map).
- v. Will communities upstream or downstream be affected?

**24. Impact on wildlife**

- i. Migration process
- ii. Transborder migration of birds
- iii. Changing their subsistence sources
- iv. Drying land and encroachment of humans
- v. Illegal hunting

**25. Social impact assessment**

- i. Will humans relations change?



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**SUMMARY OF MINUTES FOR THE 5 DAY CONSULTATIONS**

- ii. Will coexistence be affected?
- iii. Will the delicate tribal unwritten agreements be affected?
- iv. Will there be migration into the land from hostile communities?

**26. Best alternative study and evaluation**

- i. Evaluation is a whole sub-discipline by itself. The types of evaluation:
- ii. Formative Evaluation
- iii. Process Evaluation
- iv. Outcome Evaluation
- v. Economic Evaluation:
- vi. a) Cost Analysis,
- vii. b) Cost-Effectiveness Evaluation,
- viii. c) Cost-Benefit Analysis,
- ix. d) Cost-Utility Analysis
- x. Impact Evaluation
- xi. Summative evaluation
- xii. Formative evaluation
- xiii. Needs Assessment

**27. Livelihood impact assessment**

- i. Will the modalities of earning be affected?
- ii. Will their levels of income in cash and kind be affected?
- iii. Will the stable food be affected (Fish and Meat)?
- iv. Will the psychology of the people and their peace of mind be affected?

**28. MOU Primary stakeholders and others**

- i. Who are the primary stakeholders in the "project"?
- ii. What are the primary stakeholders?



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- iii. Who are and what are the secondary stakeholders?
- iv. Who are the beneficiaries?
- v. Is the field leveled?

### 29. Land ownership

- i. Will the land ownership be affected?
- ii. Will new laws for land ownership be needed?
- iii. Will there be more or be less land to own and what are the cons and pros of that?
- iv. How strong is the concept of “Ancestral Land”?
- v. Is land related to “Identity”?

### 30. Impact on Indigenous population and a referendum

- i. There is a universal movement and care and concern about “Indigenous Rights”. Does that apply in the SUDD?
- ii. Do they need to be consulted on any tampering with the SUD’s status quo? A referendum?
- iii. Has migration affected the indigenous population and their rights?

### 31. Health (Human and animal) impact assessment

- i. Drying up parts of the SUDD: Will that result in “Alien invasive species? “Alien species” are:
- ii. Species of plants, animals, and micro-organisms introduced by human action outside their natural past or present distribution.
- iii. “Invasive alien species” are those harmful alien species whose introduction or spread threatens the environment, the economy, or society, including human health
- iv. Will new diseases settle in the SUDD? Animal or human related?

### 32. Recommendations to South Sudan:

- i. Study all 9 agreements. Note how frustrating the situation is by studying the 1993 Ethio-Egyptian Agreement

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- ii. Study all the African Basins’ Agreements and Cooperation Protocols. (At least 27 known)
  - iii. The need to be aware of how and why these colonial agreements are important by studying the ICJ rulings on Badme (Eritrea and Ethiopia) and Bakassi Peninsula (Nigeria and Cameroon)
  - iv. Start full research and study International Law on water which is very weak. (Helsinki Rules)
  - v. Build a library from the British Archives
  - vi. Embark on serious capacity Building for the Legal and Water cadre of South Sudan and engage Universities
  - vii. Forge professional alliances (St Lawrence, Danube, Rhine, Zambezi....)
  - viii. Build Scenarios:
  - ix. As there has been separation:
  - x. How to share the 18.5 BCM allocated to the “Old Sudan”? At what ratio? What are the criteria?
  - xi. What are the rights and benefits?
  - xii. What of Bahr Ghazal Basin?
  - xiii. What of Sobat basin and the prospects for
  - xiv. agriculture and Hydro?
  - xv. Who are the partners and who are the allies?
33. Consultant’s independent Recommendations-I
- i. South Sudan needs to start debate: Where will S fit in NBI?
  - ii. Need to Prepare to have policy on how to deal with the SUDD waters? Rights/benefits? Do nothing for now?
  - iii. Stop dredging until SS knows what is happening and what to do. It may not be possible to claim “rights” of B. Ghazal drained waters later

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**SUMMARY OF MINUTES FOR THE 5 DAY CONSULTATIONS**

- iv. Nature and Eco-Systems never give anything for free. What is the “Price” of dredging and draining? BG and Jonglei
- v. The Nile Hydro-Politics are not an issue for politicians to play with. It is an issue of National Security. (NBI and Egypt’s Minister of Defence)
- vi. The Nile waters are not an Issue for the MWRI alone. It is part of the “Natural Resources” of SS. May be the biggest and most durable
- vii. Friendly Nations looking for the long-term welfare of SS need to help out
- viii. Do not touch: BG Basin, Sobat Basin, Jonglei Canal,
- ix. Cooperate with Ethiopia, not Egypt or Sudan. Why? They have no use for south Ethiopia water
- x. Form an all-party Parliamentary Committee on Water Resources, Environment and Ecology
- xi. Appoint a knowledgeable legal advisor to the Ministry of Water Resources and Irrigation, but accountable to Minister of Legal Affairs
- xii. Bring in Minister Michael Makue. I gave him all the Nile Agreements when he was Minister of Legal Affairs. Attended all my presentation
- xiii. UN Convention on the Law of the Non-navigational Uses of International Watercourses 1997
- xiv. Vienna Convention on Succession of States in respect of Treaties 1978. 23/8/78-EIF 6/11/96 **MUST**
- xv. Seek funding (US\$100,000+) to do both Resource Evaluation and update/modernise/complete a water policy document for 10-15-20 years
- xvi. This will take a team. and possibly 2 years





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## SUMMARY OF MINUTES FOR THE 5 DAY CONSULTATIONS

### B. Presentation By Mr. Deng Majok Chol

#### 1. Global Context of Water challenges

- i. Global demand for water is predicted to increase by [55 percent](#) between 2000 and 2050 (Pacific Institute, 2017).
- ii. Water pollution: currently, over [80 percent of the world’s wastewater](#) (UNESCO, 2017) is discharged back into rivers, streams, and oceans without any treatment.
- iii. Total value of the world’s ecosystem services is estimated at some [\\$147 trillion](#), over [60 percent](#) of these are being degraded or used unsustainably (Pacific Institute, 2017).
- iv. Globally, about 3.2 billion people live in agricultural areas with high to very high-water shortages ([FAO, 2020](#)).
- v. According to the UN data, over 2 billion people live in countries that are experiencing high water stress.
- vi. The world is now seeing increased intensity of water-related natural events. About 90 per cent of natural disasters are weather-related, including floods and droughts (UN International Strategy for Disaster Reduction ([UNISDR](#))).
- vii. The number of people at risk from floods is projected to hit [1.6 billion](#) in 2050, with \$45 trillion worth of assets at risk (World Outlook to 2050: OECD 2012).
- viii. On the other extreme, it is estimated that by 2050, [3.9 billion people](#) (40 percent of the world’s population) will live in river basins under severe water stress
- ix. On the other extreme, it is estimated that by 2050, [3.9 billion people](#) (40 percent of the world’s population) will live in river basins under severe water stress.

#### 2. The Nile Basin Regional Water Contexts

- i. The population of the Nile Basin is about 257 million of whom at least 50 per cent are heavily dependent on the Nile waters for the economic and domestic existence (NBI).
  - ii. The rainfall over the basin ranges from virtually zero to over 2000 mm



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- x. Given the current co-basin’s population growth, the question to be asked is whether they will be able to maintain a reasonable degree of food self-sufficiency, or whether they become increasingly dependent on food imports.
- xi. We must ask here what is the relationship between population growth and poverty? If the growth of the economy is not sufficient to absorb a rapidly expanding labour force at rising wages, poverty will not be reduced even if average per capita GNP rises.

### 3. Uniqueness of Current Flooding Events

- i. Concurrency: flooding from multiple sources
- ii. Scale- spatial coverage- 7 of 10 states submerged under water
- iii. level and depth of water- temporal dimension
- iv. Underpinned by climate change and variability/rains in Equatorial Lakes Countries: Burundi, Rwanda, Uganda, Kenya, Tanzania, DRC.
- v. Impacts: Unprecedented displacements, destruction of assets/lives.
- vi. Uncertain future: The mystery of the Nile lay not only in its source, but in the predictability of the rise and fall of its flood.

### 4. Cases of disappearance of water bodies

- i. Aral Sea (Kazakhstan and Uzbekistan)
- ii. Lake Poopó (Bolivia)
- iii. Colorado River (U.S. and Mexico)
- iv. Lake Badwater (California)
- v. Lake Chad (Central Africa)
- vi. Owens Lake (California)
- vii. Lake Powell (Arizona and Utah)
- viii. Lake Meade (Nevada)



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**5. South Sudan Water Insecurity**

- i. The population living in the Sudd faces water insecurity due to a number of factors. The specific current threats to water security in the Sudd are:
- ii. Seasonal flooding due to Nile flows from the equatorial lakes and local rainfall
- iii. Limited Access to Safe Water due to limited and Unreliable Water Supply infrastructure
- iv. Extractive Industry Pollution leading to serious water quality and public health issues
- v. Transboundary Hydro Politics with the potential restart of the Jonglei Canal being pursued by Egypt with the backing of Sudan

**6. Why the preservation of water**

- i. To utilize its rights and benefits to produce enough food to feed its populations, fight famine and the protection of environment.
- ii. The vision: South Sudan should embrace socioeconomic transformation through industrialization coupled with adoption of large-scale agricultural industry to wean the population off subsistence farming, which is 80 percent of all South Sudanese.

**7. Sudd wealth and blessings**

- i. The Sudd wetland is one of the world's most unique and valuable ecosystem
- ii. The is Africa's largest freshwater wetlands
- iii. The Sudd wetland is potentially the greatest economic asset in South Sudan. Potential economic contributions of the Sudd :1 billion US\$ per year.
- iv. The Sudd's non-economic values: potential as a symbol of national identity, its supports of South Sudan's unique cultures, its role in climate change mitigation, regulation of the flow of the White Nile.
- v. The Sudd provides seasonal refuge to the wildlife- between Boma plateau and the Sudd

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- vi. Groundwater recharge—2.1 million US\$
- vii. Carbon sequestration—14.4 million US\$ to 240 million US\$
- viii. Wildlife refuge 15.4 million US\$ per year
- ix. Water purification 36,000 US\$ per year
- x. Income from research and educational activity 4.4 million US\$ in 2005

### 8. Pressures, Threats & Challenges

- i. Major drainage projects like the proposed Jonglei canal and
- ii. Small but cumulatively devastating projects like small-scale like dredging
- iii. Unsustainable logging, and illegal poaching of wildlife
- iv. Oil exploration and its ecological implications
- v. Linkages between deforestation and forest and rainfall; preservation of wetlands and rainfall.

### 9. Populations and communities in the Sudd

- i. The purposeful movement of people and communities away from hazardous places raises numerous social and environmental justice concerns that will become even more pressing as retreat occurs more frequently and at larger scales. This special issue contributes to an emerging body of literature on managed retreat by providing a range of perspectives and approaches to considering justice in managed retreat.

### 10. Socio-ecohydrological research agenda

- i. Analyzing the issues and developing sustainable flood control and develop policies, technical, and implementation plans requires an understanding of the hydrology of the Sudd, the social systems of the Sudd, the potential interventions, and the governance structures.

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- ii. dynamics issues of the Sudd Basin fit within the emerging socio-ecohydrological research agenda. Ecohydrology is an interdisciplinary field that focuses on the effects of hydrological processes on ecosystems and the effects of biotic processes on the hydrological cycle (Zalewski et al., 1997; Hannah et al., 2004). To operationalize this research agenda, Thomas Hein et al (2021) highlight four initial core topics defined as research clusters (RCs), to address specific system properties in an integrative manner) The colonization of natural systems by social systems is seen as a significant driver of the transformation processes in river systems.
- iii. These transformation processes are influenced by connectivity (RC 1), which primarily addresses biophysical aspects and governance (RC 2), which focuses on the changes in social systems. The metabolism (RC 3) and vulnerability (RC 4) of the social and natural systems are significant aspects of the coupling of social systems and ecohydrological systems with investments, energy, resources, services and associated risks and impacts

iv.

### iii. CONCLUSION AND RECOMMENDATIONS

- i. A sustainable development plan for South Sudan must address the issues of seasonally flooded population of the Sudd and include actions to reduce the risks of flood damage to allow for the construction of infrastructure to enhance social welfare and sustainable economic develop while preserving the ecosystem services and intrinsic value of the Sudd.
- ii. Flood scale hydrometeorological model: While atmospheric modeling is ultimately important, this project will constrain itself to exploring the dataset developed by Grim et al.(2020) where the WRF regional climate model was run for the African Great Lakes region resulting in a meteorological dataset for conducting water resource assessment. Using these data, we will



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- iii. Set up an instance of WRF-Hydro for the White Nile basin, including the Sudd, and run hydrologic simulations using the Grim et al dataset<sup>1</sup> for the present day, mid century and end-of century periods. WRF-Hydro will include an active 1-d lake model and wetlands; (Completed in Q1-Q2)
  - 2) From these hydrologic simulations, write a paper of the hydrodynamics of the Sudd under current and future climate forcing; (Completed in Q3)
  - 3) Work with our partners to prepare a straw-person proposal and work together to identify a funding agency for which to submit a full proposal. (Completed in Q3-Q4)
- iv. Perform a comprehensive assessment of flood control options in the context of Sustainable Development (Definition: UN Sustainable Development Goals) which may or may not include the Jonglei option.
- v. Incorporation of stakeholders, affected populations, government officials and investment partners input as a key element in goal 1) and 2).
- vi. Phase I: Investment in the relocation program of the most affected populations and communities to higher grounds within the Sudd Basin. The affected populations in Jonglei and Upper Nile States should evacuate and settle temporarily eastward. Those most affected in Unity State and Lakes State should move to areas and counties that are unaffected or least affected by the flooding.
- vii. Phase I: Investment in the relocation of the most affected populations and communities to other regions and other states that are unaffected by the ongoing largescale flooding events. The most affected populations in Upper Nile, Unity, and Lakes, Jonglei, Western Bahr el Ghazal states should relocate to other regions and states that are unaffected by the flooding.
- viii. Constructions of higher and safer dykes around key towns, especially in areas and counties that are partially submerged

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- ix. Design and construction of minor channelization that pave waterways for the runoffs and torrents and the overflows from the stream inflow.
- x. Phase II: Further investment in the relocation program of the most affected populations and communities to higher grounds within the Sudd Basin. The affected populations in Jonglei and Upper Nile should evacuate and settle semi-permanently eastward if the largescale flooding events persist. Similarly, those most affected in Unity State and Lakes State should move to settle semi-permanently by moving to areas and counties that are unaffected or least affected by the flooding.
- xi. Phase II: Further investment in the relocation of the most affected populations and communities to other regions and other states that are unaffected by the ongoing largescale flooding events. The most affected populations in Upper Nile, Unity, and Jonglei State, Lakes state should relocate to other regions and states that are unaffected by the flooding.
- xii. Constructions of bigger and safer dikes and embankments to protect towns that are still operational, and which provide services to the populations.
- xiii. Expand minor channels strategically to medium or large and longer channelization that connect waterways to outlets and eventually to the main Nile.
- xiv. Digging or renovation of the Fula Dam near Nimule, for the regulation of water flow and flood control as well as the utilization of clean electricity from hydropower source.
- xv. Strategic cultivation and advancement of academic and research knowledge related to water resources -- potentially the greatest asset South Sudan has -- among younger generations. This should commence with the establishment of national scholarships for students in universities at home and abroad, to study various disciplines that include but are not limited to Climate Science,

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- hydrology, geology, geography, environmental science, pedology, climatology, paleoclimatology, water engineering, meteorology.
- xvi. Establishment of National Water Commission in South Sudan, either by the Act of Parliament or through Executive Order of the President of the Republic of South Sudan.
  - xvii. Comprehensive plan for South Sudan sustainable water resources management, with the collaboration of multiple institutions: Ministries of Water Resources and Irrigation, Environment, Agriculture and Forestry, Wildlife among other relevant institutions.
  - xviii. Concerted plans to directly engage the affected local populations and communities, which have historically been victims of intense marginality, in the process of planning and implementation of water resources and flood control research. This approach is necessary to ascertain the inclusion of the populations and communities’ lived experiences through full participation in such studies.
  - xix. Digging of water reservoirs and dams in strategic areas that are adjacent to the multiple sources of flooding: one dam in Western Bahr el Ghazal where River Lol, River Jur, and River Pango converge to form the Bahr el Ghazal tributary on its way to the Bahr el Ghazal Wetlands before joining the Bahr el Jebel and Bahr el Zeraf; one dam between Mongalla and Gemeza for both flood control and mechanized agriculture; one dam on the River Sobat near the confluence of Baro and Pibor and Akobo for flow regulation and flood control, and perhaps for hydropower during the rainy seasons with high peaks.
  - xx. Construction of artificial Lake in the triangular areas between the Nuer, Dinka, and the Murle in the Jonglei state and Pibor Administrative Area to serve the purposes of water harvest from local rains and runoffs, infiltration, and torrents, thereby controlling the flooding from the rains in the Boma





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- Mountains. The Lake will foster large agricultural schemes and future towns and cities. Other sources of water and flood in Central Equatoria, Jonglei, and Pibor Administration Area can be connected to this artificial Lake through medium and major channelization. To ensure excess water from the Lake does not spill over and inadvertently cause maladaptation, the Lake can be connected to the Pibor river near its junction with the Akobo River.
- xxi. And if the large-scale flooding events persist consistently or incrementally for the next 5 or more years or are predicted in the future simulation of hydrological and temperature assessment scenarios to last that long, then South Sudan can unpack the discourse of major physical infrastructure. The right approach should then be a bottom-up which will need to include the affected population in the intervention studies and their operational impacts to the future of the Sudd, Bahr el Ghazal Wetlands, and Machar Marshes, and their natural fragile and complex ecosystems of human population, biodiversity and wildlife.
- xxii. South Sudan to partner with some international scientific research groups from the leading academic institutions to conduct studies and create a flood scale hydrometeorological model of the Upper Nile Basin, and Sudd Basin. See model output below. Strzepek et al (2021)
- xxiii. Sudd Artificial Lake (series of 3 lakes parallel to each other) near Sobat and Pibor to store some of the 15 BCM from the Sobat and more from Akobo-Pibor River system.
- xxiv. Sudd region: Fragility and complexity of the sudd ecosystem forms a phenomenon over a large spatial coverage- from Mongalla in Central Equatoria to Malakal in Upper Nile, with Jonglei State, Lakes State, and Unity, Pibor Administrative Areas in the belly of the Sudd Basin-



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- xxv. This should study with prefeasibility study, full feasibility study, survey. Capacity, water by gravity, soil study, evaporative rate, rainfall, runoff, catchment, and depression
- xxvi. These series of lakes could either be a) surface reservoirs, or underground lake, dig and fill with Sand, water flow into and rest at the bottom, and dig well to take the water. E. G. Sand dam- in Bahr el Ghazal.
- xxvii. Replication of the artificial lake, the Bahr el Ghazal Lake near the confluence of major tributaries- Lol, Pongo, Jur etc- depression and catchment
- xxviii. Each and all the alternative major infrastructural interventions, hypothetically and categorically discussed above as long term solutions, will need to be subjected to a series of simulation scenarios and assessments to determine (a) how each of these varying solutions (proposed or conceptual) enhances or detracts resilience of the affected populations, Sudd ecosystem services (biodiversity, wildlife seasonal migration among others), and the socio-economic development of the basins and South Sudan, and (b) how each of the interventions copes with future climate and variability through climatic and hydrological modelling, preferably funded by the Republic of South Sudan in collaboration with independent research groups.

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**C. Dr Salwa Gabriel Berberi**

1. **Colonia Era Treaties Concerning the White Nile Waters & others**
  - i. Anglo Italian (1891), (1926), (1933)
  - ii. 2. Anglo Ethiopian (1902)
  - iii. 3. Franco Anglo Italian (1906)
  - iv. 4. Anglo/Egyptian (1929), Exchange of notes
  - v. 5. Former Sudan Treaties: Sudano Egyptian (1959)
  - vi. 6. Nile Basin Initiative, NBI (1997)
  - vii. 7. Cooperative Framework Agreement, CFA (2010)
2. **International Law of Transboundary Waterways**
  - i. RSS Sources of Water: Surface Waters, Groundwaters/Aquifers, Precipitation (rains/hail), transboundary watercourse
  - ii. 2. Principles and rules governing the transboundary Waterways:
    1. Helsinki Rules (1992)
    2. Berlin Rules on Water resources
  - iii. UN ECONOMIC Commission for Europe, Convention on protection of Transboundary Waterways and Internationla lakes (1992)
  - iv. 4. International Law Commission (ILC) Draft Articles (2008) on the Law of Transboundary Aquifers
  - v. 5. Ramsar Convention on Wetlands of International Impotance especially as waterfowl habitat (1971)
  - vi. Convention on Non-Navigational Uses of International Wateryaws (1997)
    - a. The normative standard is sovereignty over natural resources
    - b. Navigational uses is within the national sovereignty and territorial integrity of the riperian state and outside the scope of the Convention
    - c. There are 3 established rules of customary of international law governing the non-navigational uses of international watercourse:
      - 1- Equitable and reasonable utilization;
      - 2- Obligation not to cause significant harm;



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- 3- Obligation to cooperate on the bases of sovereign equality, territorial integrity, mutual benefit, and good faith.
- d. Utilization of the international waterway in an equitable and reasonable manner provides a platform for identifying and integrating legal,
- e. scientific and policy issues, taking into account 'relevant factors and circumstances' such as geographic, hydrographic, hydrological, climate, ecological as well as socio economic, and the affected population.

**3. White Nile Waters Regime & Ecosystems**

- i. White Nile Main Stem, its tributaries and sub-tributaries
- ii. 2. Bahr El Jebel (BEJ) and its system
- iii. 3. Bahr El Gazal (BEG) and its system
- iv. 4. Sobat/Pibor/Baro River and its system
- v. 5. Creeks and Khors
- vi. 6. El Sudd Region and other Wetlands

**4. RSS groundwater resources cover the whole land mass of the territory also known as the Sudd basin and the main systems are:**

- Alluvian aquifer
- 2. Umm Rawaba
- 3. Nubian sandstone
- 4. The basement complex

**i. Groundwater/Aquifers:** Groundwater is the most abundant source of fresh water on earth. Its an important natural resource that greatly contributes to human development. Approximately 50% of the world's population drinks groundwater daily, critical for sustaining rural population that are located away from surface water and piped infrastructure. Groundwater sustains ecosystems, maintain base flow of rivers and stabilizes land in areas with easily compressive soils.



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ii. 3. **Transboundary Aquifers:** Groundwater does not stop at international borders and huge resources are stored in transboundary aquifers. 40% of world available fresh water transboundary.

5. **ILC Draft Articles on Transboundary Aquifers (2008, definition, type and norms)** defines such system as parts of which are situated in different countries, e.g. Umm Rowaba Aquifer
6. **No national laws exist to govern utilization, development, management and control of the White Nile waters, the groundwater and the wetlands.**

4. **Permanent Constitution Provisions:** This is the right time to bridge the *Law Gab* and include clear constitutional provisions on the White Nile Waters, RSS Aquifers, the Sudd Region, and other Wetlands

**7. RECOMMENDATIONS**

**What can the R-TGONU do?**

- i. Gather (Primary & authentic) documents, analyse and assess data, statistics, satellite images, technical studies on the White Nile Waters ecology & ecosystems, the Sudd Region, other wetlands and aquifers.
- ii. Gather (primary & authentic) records, archives, colonial papers, treaties, reports, maps, etc. on the White Nile Waters, its tributaries and ecosystems, the Sudd Region, other wetlands and aquifers
- iii. Review the Jonglei Canal Project in view of contemporary knowledge, scientific research and assessments, environmental awakening, and public opinion.
- iv. 4. Commission current scientific research on environmental and social assessments on the impact of the Jonglei Canal on the White Nile Waters and ecosystems, the Sudd Region, affected population also on the fisheries livestock, birds and wildlife.
- v. Commission technical studies on climate change and extreme weather phenomena and their impact on the White Nile waters, the Sudd Region and other wetlands and the aquifers.

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- vi. 6. Approve and adopt public policies, strategies, action plans, on the White Nile Waters use, development, management, and control in conformity with the provision of R-ARCSS (2018).
- vii. Promote capacity building in respect of the White Nile Waters, interdisciplinary and integrated, both institutionally and professionally as well.
- viii. 8. Categorize and describe the White Nile Waters job opportunities across the disciplines and grades.
- ix. The bidding process shouldn't invite nor include countries that share interest on the Nile water
- x. Approve and adopt permanent constitutional provisions and national legislation on the following:
- xi. Use, development, management, and control of the White Nile Waters, its tributaries and ecosystems
- xii. The Sudd Region its ecosystems and other wetlands and
- xiii. The RSS aquifers
- xiv. **What can the TNL do?** The TNL could adopt resolutions, hold technical, consultative, and public hearings, commission technical studies and enact laws.
- xv. Approve and adopt resolutions directing the
- xvi. Executive Branch to:
- xvii. review, promptly, the Jonglei Canal Project, assess its environmental and social impact on the White Nile Waters, its tributaries, ecosystems, affected population,
- xviii. and Livestock, and submit reports on the outcome of such review.
- xix. Submit to the TNL, as soon as possible, Bills on the use, development, management, and control of the White Nile waters, its tributaries and ecosystems; the Sudd Region; other wetlands; and the aquifers.
- xx. Take immediate actions to stop the present dredging



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- xxi. project of the Bahr El Gazal basin and Bahr Naam, and carry out, swiftly, environmental and social assessments on the impact of such dredging project on the White Nile Waters, its tributaries, ecosystems, the Sudd Region, affected population, and livestock.
- xxii. 4. Hold scientific and technical hearings on the White Nile Waters, the Sudd Region and aquifers inviting specialists in:
- xxiii. Hydrology, hydraulics, meteorology, environmental science, botany, zoology, biodiversity, geology, geography, law, economics, management etc. etc.
- xxiv. The RSS White Nile has been flowing its course for many decades without management or control. The affected population have been moving closer and closer to live by and on the river. Like in the rest of the world, the climate is changing and the country is experiencing extreme weather conditions manifested in floodings for the last three years. The *status quo* is not sustainable

**D. Eng. Isaac Liabwel**

1. With exception of some streams that flow towards Lake Turkana, all rivers converge northward, exiting from the north through the White Nile.
2. The drainage system and flow regime depict a dish like shape of the whole surface land of the country.
3. At the height of wet season water, which collects from these types of rivers into lowlands rises and flows more or less into a river or a water body downstream
4. The hydro-geological setting of South Sudan is in such a way that the Basement Complex, occupies throughout the country.
5. - The basement outcrops is in one-third of the country.
6. - It forms a vast concave like a ship bottom.



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7. - The concave was formed through geo-tectonic movement in very old times; and then, the trough was filled by huge volumes of sediments.
8. - At first by Nubian Sandstone, then by Umm Ruwaba formation and alluvial deposits over the Umm Ruwaba, especially along the main river routes.
9. These water-bearing geological formations constitute only one huge groundwater basin, the Sudd Basin (RSS' IDMP, 2015).
10. South Sudan has water resources but they
  - i. - Are unevenly distributed across the country; and
  - ii. - vary considerably from year to year and within a season.
  - iii. - About 97.5% of South Sudan lies in the Nile river basin.
  - iv. - Also, surface water in South Sudan, include the Rift Valley watersheds/basins, in the far south-eastern corner, at the border with Ethiopia and Kenya, covering 2.5% of the country, which drains toward Lake Turkana.
  - v. The main feature of South Sudan is the White Nile and its tributaries, flowing through arable plains with gentler slope and characterized by wider floodplains.
  - vi. As the gradient of the terrain is very mild:
  - vii. - Volume of additional water that arrives during the rainy season cannot be accommodated by the rivers.
  - viii. - As a result, almost all the plains become inundated, creating waterlogged swampy and marshy areas, some of which are permanent with enormous varieties of aquatic Vegetation
11. Besides, drivers such as demographic and climatic changes, water demand for domestic, production and industrial uses is expected to grow rapidly in the near future.
12. A more holistic multi-sectorial approach to water resources development and management is essential.
13. **The 2015 Irrigation Development Master Plan (IDMP), as an Integrated water resources management (IWRM) framework for South Sudan**



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- i. IDMP in its approach complied with the IWRM concept, as the way forward for efficient, equitable and sustainable development and management of water resources and for coping with conflicting demands.
  - ii. The IWRM is a process that promotes coordinated development and management of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems (GWP, 2010).
  - iii. This approach will ensure effective management; and appropriate development and utilisation of water resources that could be a key driver for poverty reduction and economic growth in RSS.
  - iv. **IDMP Goal:** Is Assessment, allocation, management, and development of water resources “to support agricultural production and productivity without jeopardizing the needs of other sectors and stakeholders”.
14. **Water Management Issues in South Sudan**
- i. Cooperation with Egypt in the Field of Water Resources
  - ii. Midstream Transboundary Position within the Nile River Basin
  - iii. Floods Menace
  - iv. Urban Development (Urbanisation)
  - v. Transport Infrastructure (Roads/Bridges/Culverts and River Navigation)
  - vi. The Oil Industry
15. **The August 8, 2006 MOU** between the Ministries of Water Resources and Irrigation of the Arab Republic of Egypt and the then Government of Southern Sudan (GoSS) included:
- i. Cleaning and clearing of the aquatic weeds and other deposits from the rivers of Bahr el-Ghazal Basin
  - ii. Feasibility Study for Constructing the Multipurpose Dam on River Sue at the vicinity of Wau
  - iii. Rehabilitation and Maintenance of the Main Hydrological Stations



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- iv. Drilling and Equipping of (30) Groundwater Wells for Drinking Water and other Uses
  - v. Training and Capacity Building Project
  - vi. Establishment of the Central Laboratory For Water Quality Analysis in South Sudan
  - vii. Pilot Project for Surveying a Small Town in South Sudan
  - viii. Purchasing of Survey Equipment and Instruments for data collection and implementation of Water Resources Projects in South Sudan
  - ix. Review of the Jonglei Canal Project
  - x. Institutional and Operational Framework for Technical Bilateral Cooperation Projects between Egypt and South Sudan in the Field of Water Resources
16. Objectives of different water Infrastructure/Works
- i. Dike
  - ii. Dam
  - iii. Haffir
  - iv. Ditch (Canal/drain)
  - v. Trench
  - vi. River Channel
  - vii. Road
  - viii. Bridge
  - ix. Culvert
17. A Typical Cross-Section of a Dike and its Structural Components
- i. A dike is an artificially constructed embankment/fill (usually earthen) or a wall that regulates water levels. Normally it runs along or parallel to a water body such as a river in its floodplain, with the main purpose being protecting the land behind it from flooding. It therefore, acts as a wall that hold back a water body, in preventing the water from overflowing and flooding adjacent areas. A land would be flooded if the dikes were broken down.
18. A dam is a barrier that stops or restricts the flow of surface water or underground streams. Reservoirs created by dams not only suppress floods but also collect/store water which can



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be used for activities such as hydropower, irrigation, human consumption, industrial use, aquaculture, and navigability. The word dam can be traced back to Middle English, and before that, from Middle Dutch, as seen in the names of many old cities, such as Amsterdam and Rotterdam.

19. **Culvert** are commonly used both as cross-drains to relieve drainage of ditches at the roadside, and to pass water under a road at natural drainage and stream crossings. When they are found beneath roads, they are frequently empty. A culvert may also be a bridge-like structure designed to allow vehicle or pedestrian traffic to cross over the waterway while allowing adequate passage for the water.
20. **Culvert** Come in many sizes and shapes including round, elliptical, flat-bottomed, open-bottomed, pear-shaped, and box-like constructions. The culvert type and shape selection is based on a number of factors including requirements for hydraulic performance, limitations on upstream water surface elevation, and roadway embankment height
21. **Regarding the unfinished Jonglei Canal:**
22. - Apart from the bridge to be constructed across the regulator and lock at Bor, it was proposed that three bridges would be provided at km 25, km 125 and km 250 across the then Jonglei Canal.
23. - From the local point of view and the unimpeded wildlife migratory routes, the provision of sufficient crossing points was essential.
24. - The local response to the enquiries conducted in great detail by the consultants was unanimous in demanding such facilities.

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**The Sudd Wetland and White Nile Water Resource Development and Management Initiative**

**SUMMARY OF MINUTES FOR THE 5 DAY CONSULTATIONS**

Public Awareness and Consultation on Sudd Wetland and White Nile Water Resource Development and Management;

**Moto:** No Life without water: Develop and Manage the Sudd lands and White Nile Resources sustainably;

**Chief Guest: Dr Barnaba Marial Benjamin**

**Segement Compiled by Kuc Kol**



## **The Sudd Wetland and White Nile Water Resource Development and Management Initiative**

### **SUMMARY OF MINUTES FOR THE 5 DAY CONSULTATIONS**

#### **Day 1: Launching and opening remarks**

##### **Chairperson of the organizing committee –Akoc Akuei Manhiem**

1. The public ,International and national experts are invited to help the government make an informed decision on the issues of white Nile Waters and Sudd wetlands;
2. The objective of the committee is to convene a five day awareness and consultative meeting on sudd wetlands and white Nile waters management

##### **Hon. Africano , Undersecretary, Ministry of Environment**

1. Dredging project is very sensitive and it has raised anxiety among the public ;
2. The genesis of this dredging initiative is flooding ;
3. Floods are going to be frequent due to climate change
4. The ministry of environment will not hurry into activities that will hinder our nation later ;
5. We had earlier commissioned the research on sudd ecosystem and it was launched during world environment day;
6. The Sudd helps in evaporation and hence brings rain ;
7. Western Equatoria green belt run upto DRC is available because of sudd
8. We need energy to serve our forest
9. We appreciate and commend our president of Republic of South Sudan for suspending dredging activities
10. We also take seriously the assignment given to us. we will not rash in an assignment

##### **Dr Marial Benjamin –Minister of Presidential Affairs**

1. This is a public awareness program for our experts to inform public and government on evidenced based information on sudd wetland and white Nile water resource management
2. The government is concerned about flooding problems
3. Jur River was used for navigation from Wau, Meshra Rek up to Lake No.
4. The government never talk about Jonglei Canal resumption , what was meant was cleaning of rivers for navigation ;
5. Our president has stopped dredging activities pending feasibility studies ;
6. I duly opened the public awareness discussion on behalf of the President.

THE REPUBLIC OF SOUTH SUDAN



THE SUDD WETLANDS & THE WHITE NILE WATER RESOURCES DEVELOPMENT AND MANAGEMENT INITIATIVE  
(SWWDMI)

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## SUMMARY OF MINUTES FOR 5 DAY CONSULTATIONS

**Hon. Isaac Liapwel , Former Undersecretary , Ministry of Water resources and Irrigation**

1. We didn't stabilize government momentum to finalize our strategies on water and flood management
2. Bentiu bridge has restricted BGzal river flows and thus causing floods;

**Dr Tombe , Former Undersecretary Ministry of Environment**

1. I am happy that the candle of environmental protection is lighting
2. I call upon our national experts to present their views on climate adaptation
3. No to jonglei Canal because it is not our priority ; our priority is energy and food ;  
Anyone who wants to help south Sudan should do so in food production and energy ;
4. Let us use our knowledge to solve our problems

**Deng Majook Chol**

1. Seasonal distribution of energy provide rainfall.
2. Water pollution is a threat to water management

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**SUMMARY OF MINUTES FOR THE 5 DAY CONSULTATIONS**

3. Water resource in SS must take into account pollution issues ;
4. Over 2 million people have water stress/water shortage
5. 90% related natural disasters are related to water in the world
6. By 2050 3.9 billion people will Have water shortage
7. Sudd receives water from Bharegal , White Nile and other rivers ;

Drought and flooding have occurred alternatively for over years

Livelihood are closely link to the surrounding environment

3. Let us give time to research to map the way forward ;
4. We need institution with capacity linked to outside world to solve the problem of water insecurity

Recommendation

1. Water is more precious than oil
2. Water is renewal resource while oil is not
3. South sudan to commsion studies on water management
4. Modelling will help in our water management



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**SUMMARY OF MINUTES FOR THE 5 DAY CONSULTATIONS**

Andu Zakaria Lukwasa Wani, Lecturer

We need to empower our metrology department , the one have is avaiation metrology

Our ground water needs to be studied and utilized by us , animals and wild life

By 2040 , our rainfall will reduce by 70% in the sudd wedland

Temperature is increasing in the sudd wetland

Nhial Titmamer , Sudd Institute

1. Dredging is not effective in the control of extreme flooding
2. Temperature is increasing while rainfall is decreasing ;
3. Indian ocean dipole climatic conditions affects South Sudan and East Africa

Recommendation

1. If lake Victoria is destroyed where will we get our water ;
2. Physically and politically , South Sudan is liberated but its development needs science ;

Questions: what is the position of the government on dredging?

What was the single sentence in the CPA about the Water ?

What was dredging project single sourced to Egypt?

What is the emergency intervention on flooding?



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**SUMMARY OF MINUTES FOR THE 5 DAY CONSULTATIONS**

Why is Clearing of rivers given to Egypt instead of South Sudanese?

Hon. Angelina Teny

1. Dredging was resolved after numerous presentations to the council of ministers by minister of water resources;
2. There is no control of water in South Sudan ;
3. If Sudan closes its dams what will happen to south Sudan ?
4. Will dredging dry up all the rivers in South Sudan ;

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**SUMMARY OF MINUTES FOR THE 5 DAY CONSULTATIONS**

**Dr Marial Benjamin –opening Remarks**

Day two is officially opened and I ask all the participant to listen attentively and participate actively

**Presentation 1 : Dr Salwa Gabriel Berberi**

1. South Sudan should collect all the agreements signed before independence from Sudan and other previous colonial countries ;
2. Ratios and share of Nile waters are critical according one school of thought ;
3. Surface of waters are ground waters , Aquifers and precipitation /rainfall /hail;
4. The Sudd Wetlands are of special interest of international community because shared benefits globally for example; birds seasonal migration to sudd wetland from different parts of the world is one advantage of wetland in global ecosystem use.
5. Cooperation is required in the usage of international waters but on equitable settings ;
6. 97% of South Sudan land is covered by water;
7. South Sudan agreements have no provisions on the White Nile waters except navigation ;
8. No national law in place that govern the development , usage and management of white Nile waters

**RECOOMENDATION**

1. Review the Jonglei canal project and do contemporary studies ;
2. Commission studies on the climate changes and their impact of white Nile and the Sudd Wetlands ;

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**SUMMARY OF MINUTES FOR THE 5 DAY CONSULTATIONS**

**Professor Tag**

1. Previous colonial Nile Agreements may or may not affect South Sudan but South Sudanese need to study them
2. South Sudan is blessed with abundant underground water which can be lost if the Sudd dries up ;
3. One country is needed to sign Nile Basin and two countries to ratify the treaties and then Egypt/Sudan will not have monopoly over water ;

**Deputy Dean- Deng Abraham Akec**

1. We need environmental laws to be enacted before studies to guide activities on White Nile and Sudd;
2. South Sudan should stand with Nile Basin countries for the distribution of Nile Waters equitably

**Q and A Session**

1. Will dredging solve flooding
2. What is South Sudan environmental policy
3. What is the South Sudan national security definition on water
4. What will happen if the recommendations are not implemented ;
5. What did Sudan raise the reservoir level? Can our government ask Sudan?
6. If dredging is not a solution to flooding what is the best alternative?

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**SUMMARY OF MINUTES FOR 5 DAY CONSULTATIONS**

Deng Majook Chol

1. SS government should collect Water archive from UK thru its embassy ;
2. South Sudan council of ministers should pass a law that gives 10-15 % of the budget to water resource management that will fund locally owned research;
3. Relocation of flood affected populations should be supported by government;
4. I propose Artificial lake in the triangle area of Jonglei , upper Nile and greater Pibor areas to hold water catchment from Pibor and from the Sudd ;
5. Same lake can be replicated in Bhargal basin

**Professor Tag**

1. BGZal basins originate in SS 100%.
2. Dredging for river navigation doesn't exceeds 40 meters deep into the ground ;

**Dr Salwa**

1. Local government needs to do rural planning ;
2. Our partners shouldn't deal on WASH alone
3. We can't continue to have IDPs because flooding ;

**HON. OKA, former Undersecretary ministry of Water**

1. Water security is link to
  - i. Food security
  - ii. Water governance
  - iii. Hydro power generation
  - iv. Resilient to water related crisis
1. Disaster risk reduction is more effective and efficient than disaster management.
2. Humanitarian organizations are not for development, they are humanitarian workers.
3. Funding to ministry of water is very limited, in 2018 it was 0.5% ;

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**SUMMARY OF MINUTES FOR 5 DAY CONSULTATIONS**

Michael Makuei

1. The most difficult thing is the issue of borders: they have and show muscles
2. Research must be conducted because we need development
3. How do we benefit from Sudd Wetland?
4. Relocation within the area is acceptable but to a different area does cause a problem.
5. Let us forget about Jonglei canal for now

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## **SUMMARY OF MINUTES FOR 5 DAY CONSULTATIONS**

### **DAY FOR THE LEGISLATURE**

Chief Guest: Dr Barnaba Marial Benjamin

Compiled by Kuc Kol

Freedom Hall, Juba –South Sudan

Wednesday July 13, 2022

Council of states –Acting Speaker

- i. Appreciation to President for organizing this event ;
- ii. South Sudan is blessed to have second largest wetland in the world ;



THE SUDD WETLANDS & THE WHITE NILE WATER RESOURCES DEVELOPMENT AND MANAGEMENT INITIATIVE  
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## SUMMARY OF MINUTES FOR THE 5 DAY CONSULTATIONS

### Deputy Speaker –RTNLA HON. Oyet

- i. Appreciation to the office of the president for organizing this event ;
- ii. This workshop is very critical and timely to discussed
- iii. Motion on flooding was raised and discussed in parliament ; relevant ministers were invited to present their plans about flooding;
- iv. We seek short term and long term solutions to flooding;
- v. Legislatures are part of the society , we have learned of dredging equipment in unity state and documents signed by executive;
- vi. Parliament is concerned o the timely solution to floodings ;
- vii. Parliament will be final stage to decide on this matter
- viii. Parliament will commission public consultation and make use of specialized committees ;
- ix. We should not politicize the matter of natural emergency
- x. Parliament will maintain and uphold public interest ;

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**SUMMARY OF MINUTES FOR THE 5 DAY CONSULTATIONS**

**Dr Marial Benjmain –President Representative**

- i. It is important to listen to our experts and discuss issues of water so that you take informed decisions;
- ii. We need informed decisions from you on the issues

**Professor Tag**

1. 30,000 to 70,000 SQK is an area of Sudd;
2. Jonglei Canal is a colonial project ;
3. Mission of the jonelei is to drive 40 billion cubic water from the sudd to the Nile to Egypt ;
4. Floods are not rivers ; they change routes
5. Control of nature requires obeying it ;
6. Haffirs are like dams , they are not ponds ;
7. CPA was silent about Nile water for tactical reasons and that doesn't make close our eyes ;
8. Parliament to study cooperative basins agreements
9. British archives and University of Durham in British have more information and literature
10. Take care of Bahrelzal Basins bcse it is 100% originated in South Sudan ;
11. Water security is a national security

Feasibility studies steps and assessment

1. Social impact assessment
2. Livelihood assessment
3. Political implications assessment
4. Health impact assessment for both animals and humans



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## SUMMARY OF MINUTES FOR THE 5 DAY CONSULTATIONS

### Cooperative agreement

1. Propose a motion for National Nile Commission
2. Demand cooperative agreement
3. National archives and records commission on water resources
4. Mandate annual scholarships for water resources
5. Give due attention to water resources ; state clearly what is the roles of the parliament and executive
6. Water and soil analysis institute should be instituted ;
7. Pass the bill of cooperative agreements on Nile Basin ; it needs one country to sign it and it can be ratified

### Dr Salwa Berberi

- i. water regime/ecosystem
- ii. International law governs relations between countries
- iii. River Nile is trans boundary ;
- iv. Practices and treaties must be codified into national laws;
- v. Clean slate principles ; which means that new country should not be required to accept colonial laws and policies ;
- vi. Colonial papers related to this country should be collected from former colonial countries ;
- vii. Treated to be collected ; Anglo-Italian ,Egypt has natural and historic rights, Nile Basin Initiatives ,UNECU ,RMASAR treaty

### Rules for sharing Nile water

- i. Equitable distribution of waterways;
2. No laws to govern water management ;  
Permanent constitution should take note of this ;
1. Commission technical studies on Jonglei canal project ;

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### **Bienhom representative**

1. We need to differentiate btn Jonglei Canal and clearing of rivers in Bentiu ;
2. River navigation needs to be stored ;

### **Isaac liapwel**

1. Basement complex is under umar uahaba
2. Agriculture goes together with irrigation
3. Aweil rice scheme is one example of floods are used to produce food for the population;

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**SUMMARY OF MINUTES FOR THE 5 DAY CONSULTATIONS**

4. Water resource management Authority
5. BGzal drdging is restricted to 30km
6. Clearing of weeds from the rivers and Review the jonglei canal were in MOU ;

Alier Oka

- i. Nile Basin Initiative was established in 1999 ;
- ii. NBI cooperative agreement was signed in 2010
- iii. I strongly advise South Sudan to sign and ratify the agreement if we want to change colonial governments
- iv. Let us ratify the CFA and create storage ;

1. Luri basins were ignored in the construction of Bhagzal Highway
2. If you release the project without EISA , the resource will not be protected ;

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**SUMMARY OF MINUTES FOR 5 DAY CONSULTATIONS**

**Dr August Ting Mayai**

1. Research is important in advancing policy ;
2. Think Tanks are made to generate science and evidence and to serve as a catalyst;
3. Increase in security sector increases death 60 people ;
4. The legislature should use evidence in advancing their policy formulation

Rebecca Okwachi – Chieftain

- i. Lol river in malakal is blocked by aquatic weeds ;
- ii. There has to be a strategy for dissemination of resolutions ;

Hon. Chaguor

What is the immediate solution to flooding? Dredging must be carried out by South Sudanese only ?

Don't make it a project bcse people are suffering ?

Why is Copwperation agreement not taken to parliament

**Annex 4**  
**Questions Asked by the Participants**



THE SUDD WETLANDS & THE WHITE NILE WATER RESOURCES DEVELOPMENT AND MANAGEMENT  
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Wetlands sustainably

## QUESTIONS ASKED BY PARTICIPANTS

### Concerns On Egypt’s involvements on Dredging

- Q1. Is Jonglei Canal Separate from dredging?
- Q2. James Mabior from Upper Nile university to Mr. Africano Joseph what quick adaptation plans the ministry doing ?
- Q3. What is the position of the government of South Sudan on the protection of the waters?
- Q4. Where did the idea of the dredging rivers come from?
- Q5. Need to get information on dredging from the government
- Q6. DR Tag single line in the CPA what is that single line on Nile water all about?
- Q7. Madam Amer Manyok: why was the contract to Egyptian was single sourced? And why Egyptians?
- Q8. Achieng Majak: Why is the Project given to Egyptians not South Sudanese ?
- Q9. Deng Aguar: Is there any research that was done to verify to on the amount of excess water ?
- Q10. Why is dredging funded by Egyptian government?
- Q11. General Concerns on Dredging
- Q12. Why government agreed to bring dredging machines on board with prior studies?
- Q13. What are alternative solutions to the people affected by floods?
- Q14. Why is dredging is on the NAAM river only?
- Q15. Is there any water security protection within South Sudan?
- Q16. How do we help people affected by droughts to get water?



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## QUESTIONS ASKED BY PARTICIPANTS

Q17. Why there is no water related development and residence cant get water in their homes?

Q18. Women are suffering from the lack of water and insecurity

Q19. What are the implications of dredging the river NAAM?

Q20. John Mayor to Prof Taj. Why Dredging initiative initiated by Egypt and not South Sudan?

Q21. Is there any research or study suggesting that dredging is the only feasible solution for flooding?

Q22. Angelo Kennedy Joseph: South Sudanese citizens in Juba are more equipped with knowledge on Dredging, what plans are there to equip the people of unity state and the affected communities with the right information on dredging?

Q23. Mading :Is it possible for water to be channeled to other countries through pipelines?  
Akol Akok: is there any possibility of making dredging such that water can rotate within South Sudan?

Q24. Mou Abdengo: what is the connection between dredging and flood control?

Q25. Machiek Akon: based on scientific knowledge and people debate once the data is at hands, do we have data collected for this debate?

Q26. Mapet Machol: can dredging affect our fisheries?

Q27. Angelo Thouk: What flooding control options do we have other than dredging?

### **Q28**Questions asked by Mach Bior Manut to Dr. Marial

Hydro geologist

Q1. What is the lead internal effort to defeat hunger in the country?

Q2. How do you as government develop to improve agriculture, forestry, and fisheries practices and ensure good nutrition for all? We are tired of eating Azam wheat from maize flour transported from Uganda, Kampala



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## QUESTIONS ASKED BY PARTICIPANTS

- Q29. How will the government develop science and technology to reduce poverty in the country?
- Q30. why government is not investing in Railway, on land roads, power plants, schools, irrigation networks, agriculture services, training for researchers and nutrition programs.
- Q31. Does the government have the proportion of people living in extreme poverty areas in the country?
- Q32. What is the population estimate of people living on the river Nile?
- Q33. What is the Geo-strategy of the government over the River Nile resources?
- Q34. What is constitutional act on River Nile?
- Q35. What are composition as government for South Sudan?
- Eco- system management
  - Water resource management
  - Project appraisal
  - Flora and Fauna conservation
  - Social science rehabilitation
  - Ecology
  - Water pollution control
- Q36 . How do you as a government develop the field safety on the river Nile?
- Q37 . What are decentralize the environment clearance projects by categorizing the development projects in two categories I. E?
- Category A: National level appraisal
  - Category B: state level appraisal
- Q38 . What is south Sudan Environment Management?
- Stakeholder's empowerment
  - To institutional change
  - Corporate change
  - Design and engineering change
  - Scientific change
- Q39. Question from Bishop William Ladu**





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## QUESTIONS ASKED BY PARTICIPANTS

If Egypt has a delta and Mediterranean Sea why not South Sudan to conserve the Sudd, its only stagnant water for ecosystem?

### **Q40 Paul Puot Juach a concern citizen**

As we have been discussing for the last one week on the question of dredging Naam or white Nile tributaries will be dredged or not. I think we may agree initially to give a go ahead, but the problem is the incredibility of the contractor. What are the measurements and formulas that have been given to dredge or clean up the Naam and White Nile tributaries?

Questions 41: by Mou Abednego to Hon.Marial Benjamin, Hon.Anjelina Teny and Hon.Micheal Makuei

What is the foreign policy adopted by Uganda and South Sudan government over the flow of water from Lake Victoria to white Nile Basin?

Question 42: If South Sudan mismanaged water by channeling it to other countries, what will other countries sharing Nile water with South Sudan say?

Question 43: in case of Jonglei canal project, why government does thinks of channelings water to different country more than building water storage facilities to store water within south Sudan for future use.

Question 44: what is the role of MPs in Jonglei canal project ?

### **Comments**

Two comments from Arch Bishop Moses Deng Bol and another anonymous person clarify the name of the River as Kiir River and not Nahr el Arab

A comment from anonymous suggested that the country should immediately consult with the East Africa Community on dredging and Fulla proposal

**Annex 5**  
**Feedback from the Participants**

## THE REPUBLIC OF SOUTH SUDAN



### THE SUDD WETLANDS & THE WHITE NILE WATER RESOURCES DEVELOPMENT AND MANAGEMENT INITIATIVE (SWWDMI)

## Feedback from participants of the five (5) day Public Awareness and Consultation (Public, Legislature and Cabinet)

### 1. Introduction

This section presents the results of the evaluation by the participants in the Public Consultation and Awareness Programme carried out from 10<sup>th</sup> to 14<sup>th</sup> July 2022. The programme was divided into three segments: the first was for three days involving members of the general public; the second was for one day involving the Honourable Members of the Parliament and the Council of States; while the third was for the Honourable Members of the National Cabinet. At the end of each segment, the Secretariat of the Organising Committee distributed copies of specially designed questionnaire that sought to inquire on the overall evaluation of the programme by each of the sated categories of participants. The table and graphs depicted herein represent the findings/results of this evaluation. Consistent with common practice in research, it is important to note that nowhere in the analysis have the names of respondents been mentioned. This is critically important in maintaining anonymity.

### 2. Presentation of the data results

The Secretariat administered a total of 400 questionnaires for the whole five days of the consultation. Questionnaires were distributed to the first segment after the three first days. This was immediately followed by questionnaires on the fourth day to the Honourable Members of the Revitalised National Transitional Legislative Assembly (RNTLA) and the Council of States. On the last or fifth day, the same was administered upon the Honourable Members of the National Cabinet.

In terms of return rate, the Secretariat received only 325 copies of the questionnaire, out of the distributed 400. This represents an 81% return rate. The foregoing illustration therefore represents the data analysis of this percentage. Nonetheless, for the purpose of this research, the unreturned margin of 19% has been considered a negligible margin, and has thus been neglected in this analysis.

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The data presentation involves a table and graphs in terms of bar charts. The presentation has one section only. It is based on the questions, which sought the perception and views of the respondent towards the organisation and overall performance of the Organising Committee.

The questionnaire was designed with closed-ended questions based on a five-grade Likert Scale as follows: Excellent, Very Good, Good, Fair, and Poor. As designed, “Excellent” represented the perception of the best performance; while “Poor” depicted the perception of worst performance, with the middle grades falling in that respective order of perception.

For the purposes of this analysis, the rankings of “Excellent,” “Very Good,” and “Good” have been combined, recategorized and/or considered as “Positive.” Meanwhile, the rankings of “Fair” have been considered as “Neutral,” and “Poor” have been considered as “Negative.” These results are presented in table and charts indicated below.

**Table (1): Response of the Participants on the Evaluation of the Organisation and Overall Performance of the Consultation Sessions**

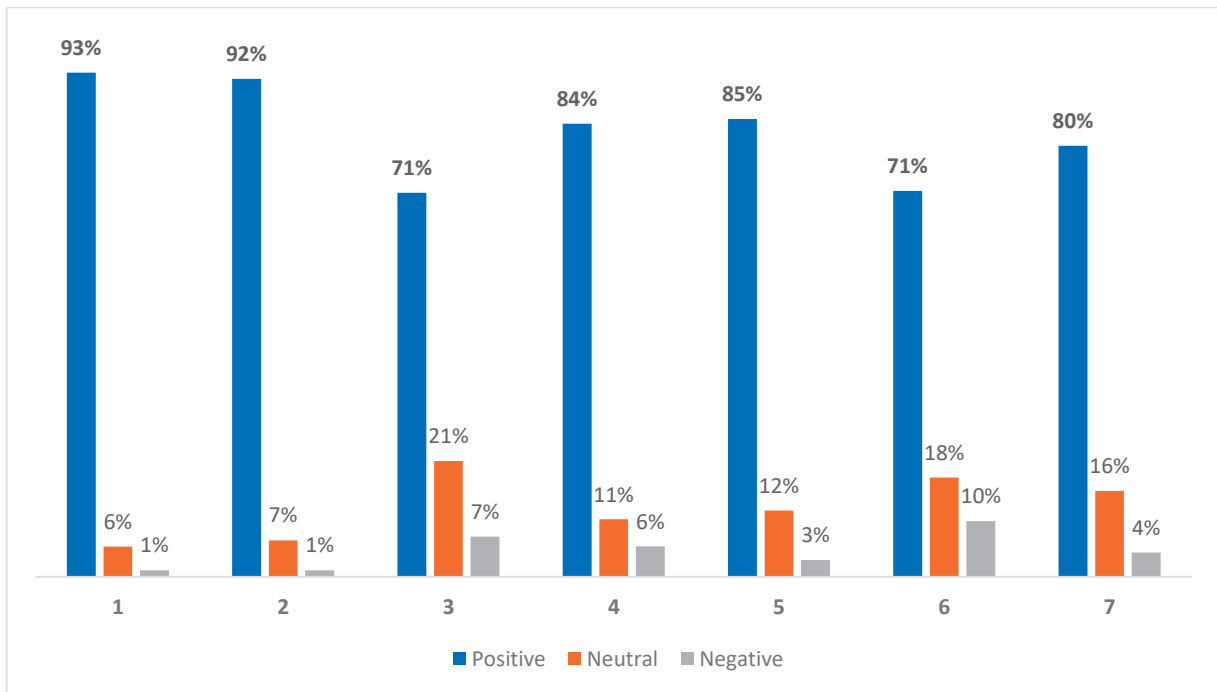
S/No.	Questions	Positive	Neutral	Negative
a.	Would you please tick the organization of the awareness and consultation programme	93%	6%	1%
b.	What is your opinion about the presentations?	92%	7%	1%
c.	What is your opinion about the questions and answers session?	71%	21%	7%
d.	How is the feedback from the experts according to your opinion?	84%	11%	6%
e.	Please tick appropriate about the summary presented by the Rapporteurs	85%	12%	3%
f.	Please tick appropriate about the time allocated for the awareness and the consultation programme	71%	18%	10%
g.	Did the awareness and consultation programme tackle the issues in depth	80%	16%	4%

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THE SUDD WETLANDS & THE WHITE NILE WATER RESOURCES DEVELOPMENT AND MANAGEMENT INITIATIVE (SWWDMI)

Fig. 1. Response of the Participants on the Evaluation of the Organisation and Overall Performance of the Consultation Sessions



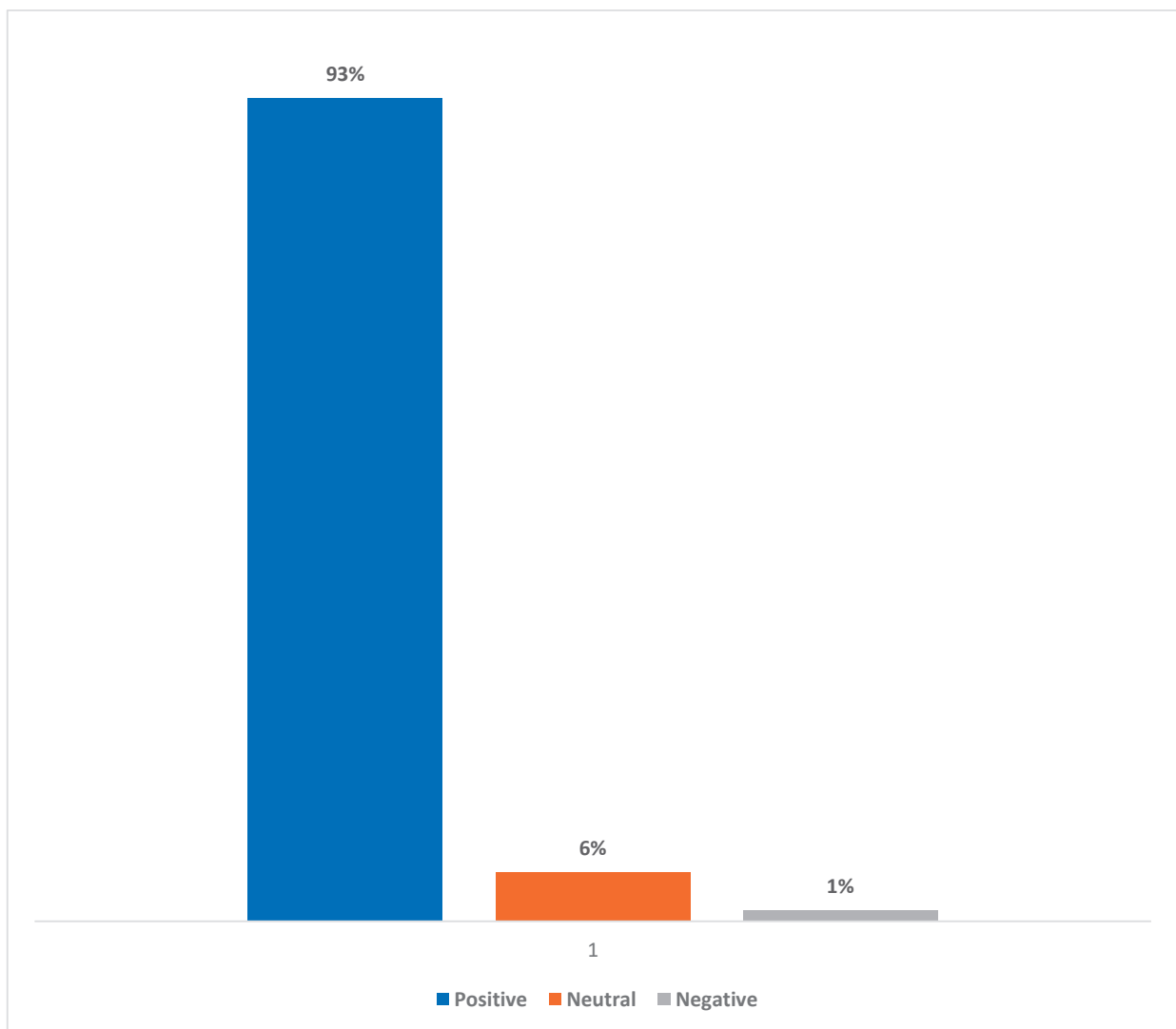
With the highest range of 93% and lowest ranking of 71%, **Figure 1** illustrates that the participants have generally rated the organisation and overall performance of the Consultation forum as successful or Positive. Meanwhile, highest ranking of 21% and lowest ranking of 6% for Neutral; as well as that of 10% and 1% for Poor or Negative indicates that those who felt that the organisation could have been better arranged are but just minimal, compared to those who rated it as a success. The detailed rating of each individual question is indicated in the subsequent charts below.

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MANAGEMENT INITIATIVE  
(SWWDMI)

Fig. 2. Rating of the Organisation of the Consultation and Awareness Programme



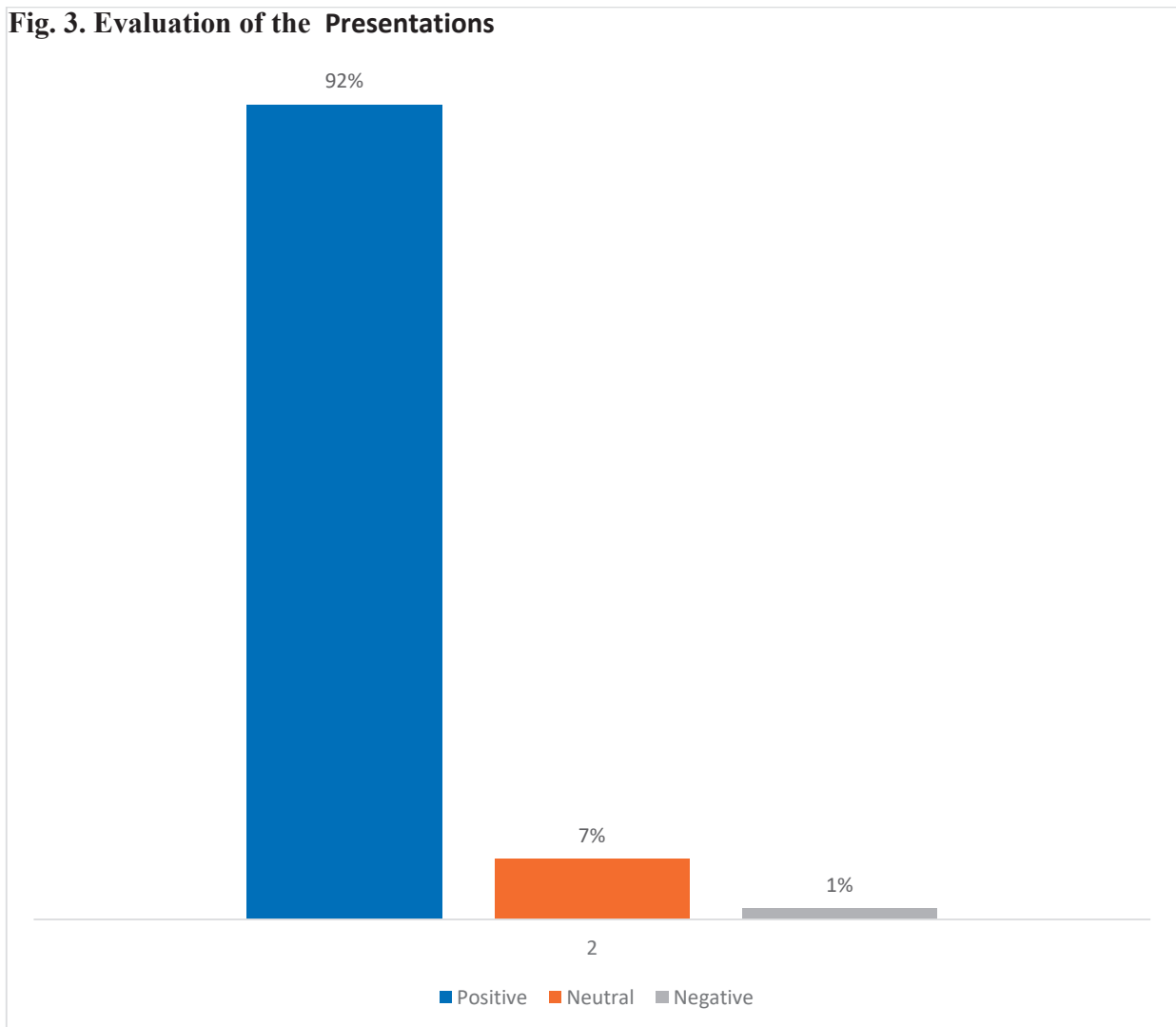
The **Figure (2)** illustrates that 93% of respondents agreed that the organization of the awareness and the public consultation is process is **Positive**. As shown, only 6% of the respondents assessed the programme as Fair /Neutral, while only 1% as Poor or Negative.

THE REPUBLIC OF SOUTH SUDAN



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Fig. 3. Evaluation of the Presentations



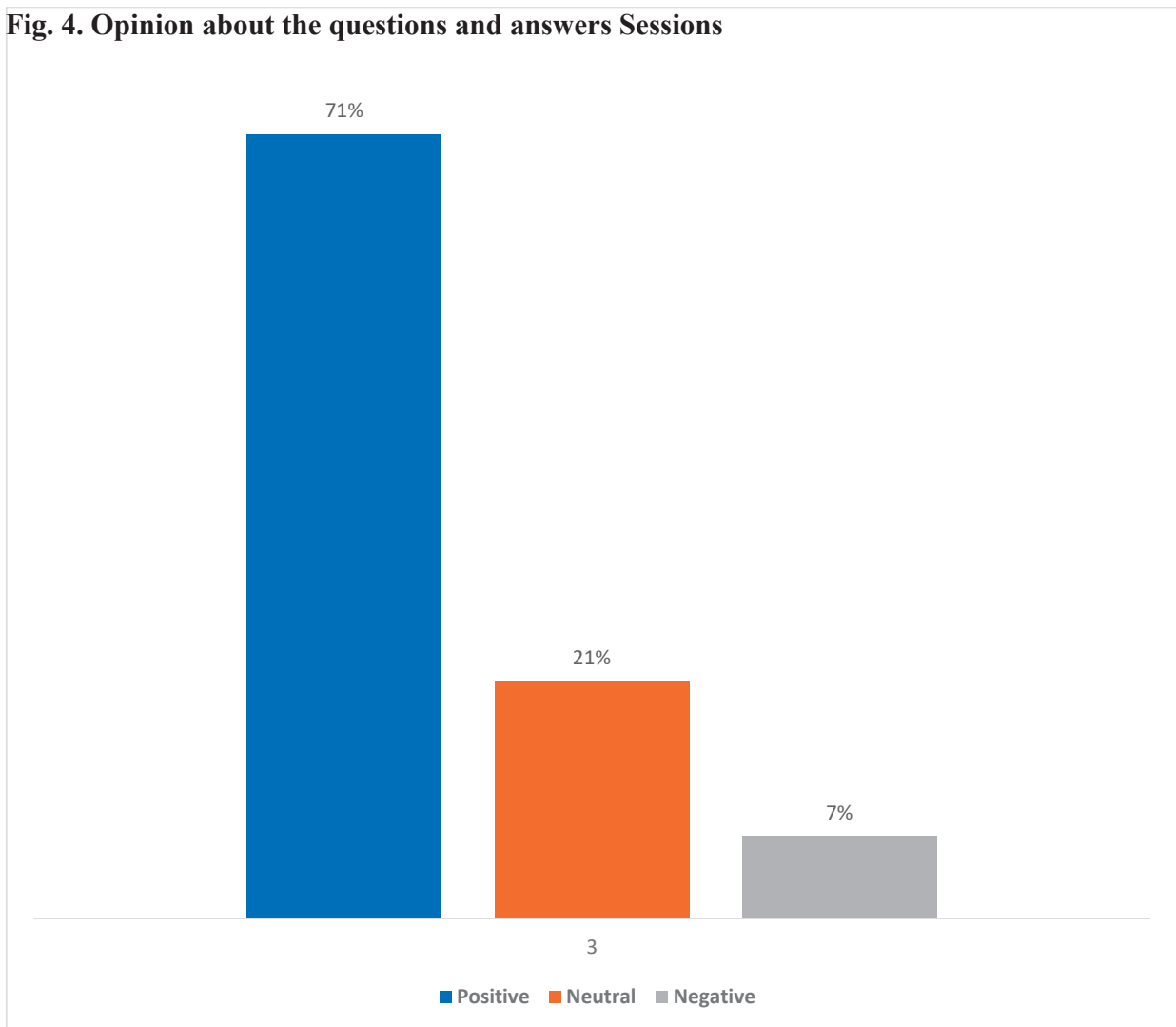
The **Figure (3)** depicts that 92% of respondents agreed that the presentations was positive. However, 7% of respondents sees that the presentation was fair/Neutral and only 1% was not convinced or happy with the presentations done by the both international and national expertise.

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Fig. 4. Opinion about the questions and answers Sessions



The **Figure (4)** illustrates that less than 71% of respondents agreed that the questions and the answers were **positive** and they are also very educative and scientific, while 21% of respondents were neutral and only 7% sees that the questions were negative and not educative.

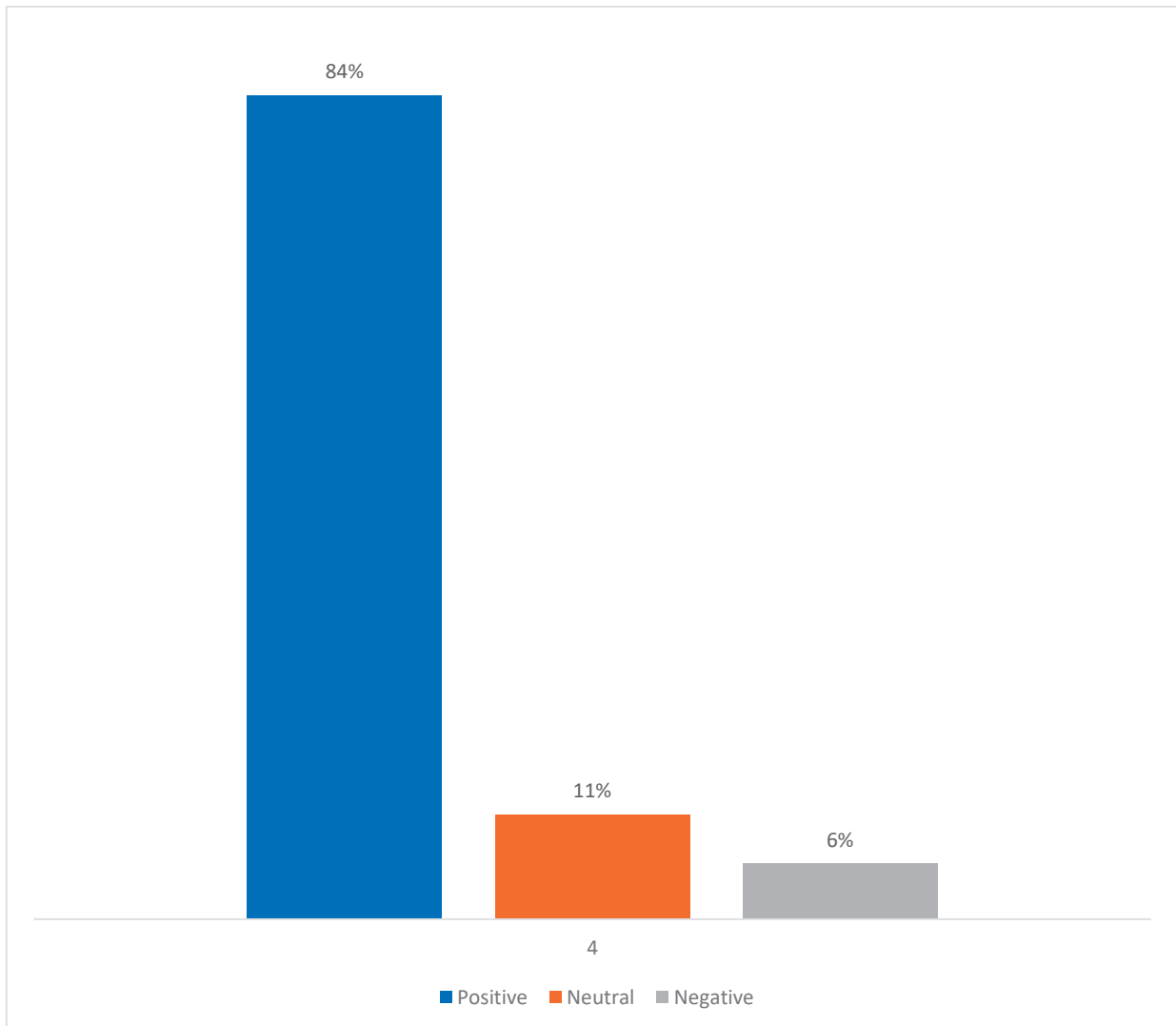


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Fig. 5. Feedback from the Experts Opinion



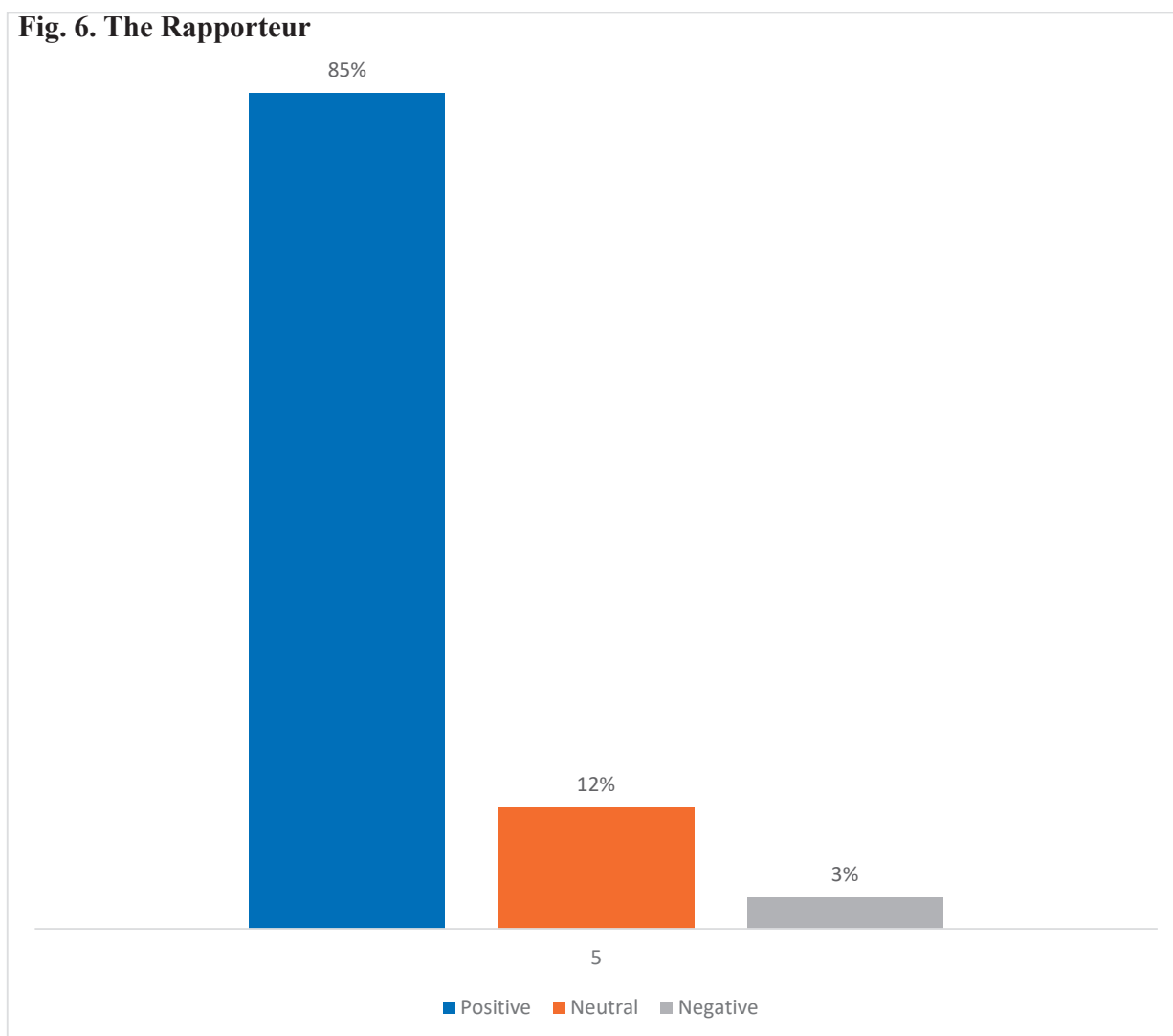
The **Figure (5)** shows that 84% of respondents agreed that the feedback by the experts were positive **that make them to benefit a lot**, while 11% were neutral in their decision and only 6% were not convinced by the feedback and see it not satisfiable on this consultation.

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Fig. 6. The Rapporteur



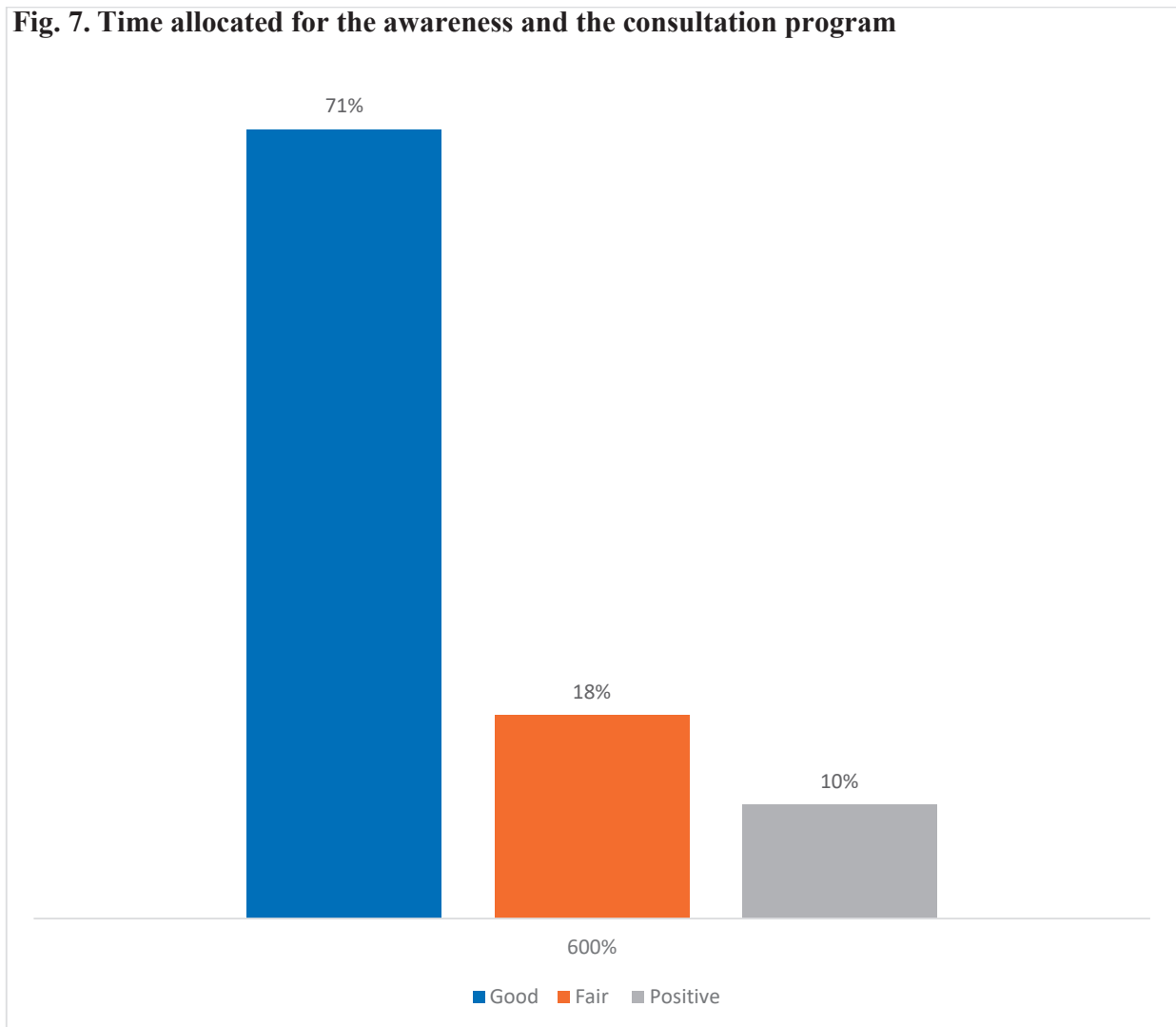
The **Figure (6)** illustrates that 85% of respondents agreed that the summary provided by the rapporteur during the program positive. Nonetheless, 12% of respondents was not sure or fair and 3% of the respondents sees that the summary was poor/negative.

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THE SUDD WETLANDS & THE WHITE NILE WATER RESOURCES DEVELOPMENT AND MANAGEMENT INITIATIVE (SWWDMI)

Fig. 7. Time allocated for the awareness and the consultation program



The **Figure (7)** illustrates that 71% of respondents ticked good on the time allocated for the awareness and the public consultation, However, 18% of respondents were fair in their respondents and only 10% says that the time was insufficient.

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THE SUDD WETLANDS & THE WHITE NILE WATER RESOURCES DEVELOPMENT AND  
MANAGEMENT INITIATIVE  
(SWWDMI)

Fig. 8. Time allocated for the awareness and the consultation program

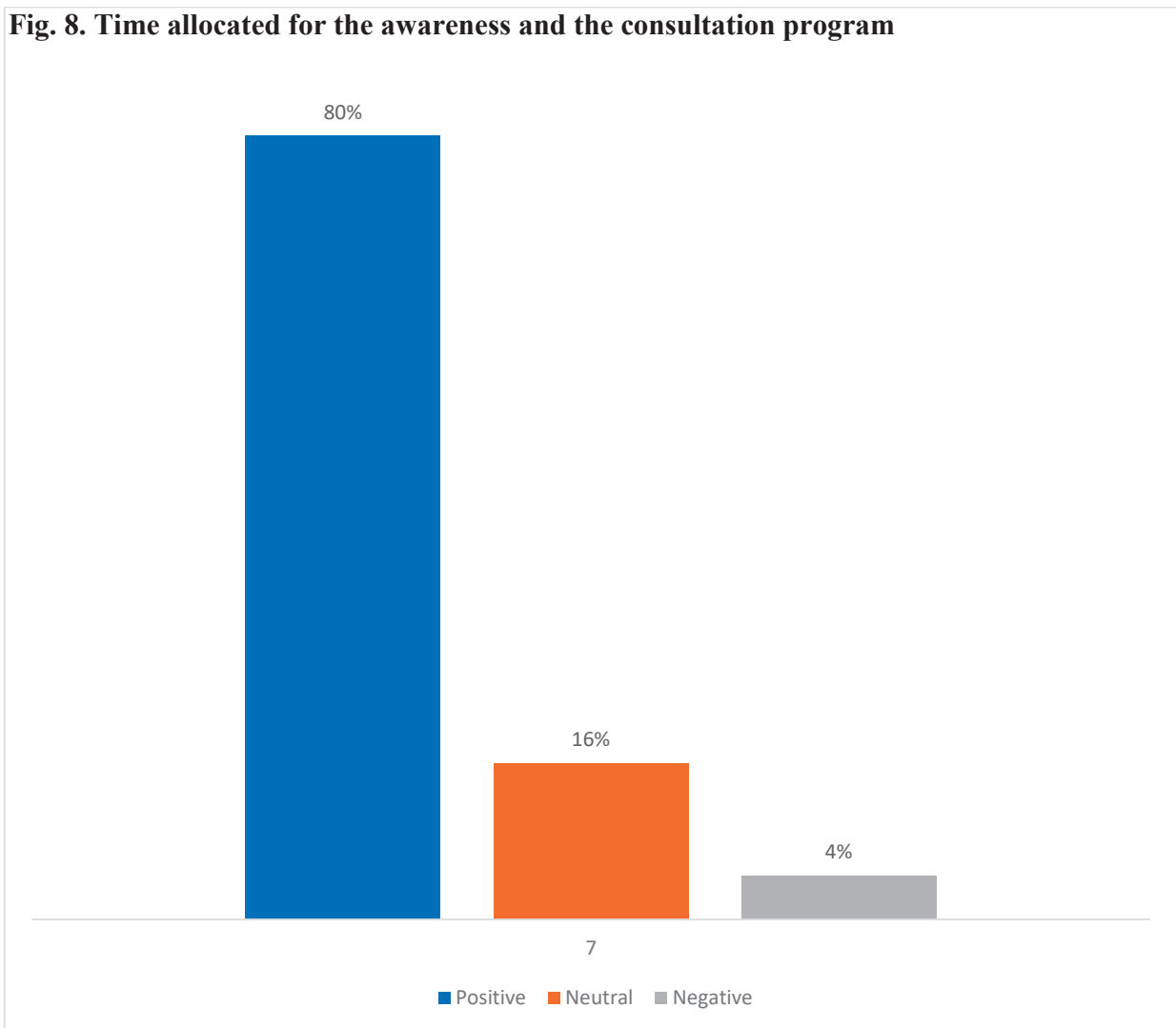


Figure (8) illustrates that the time allocated for the answers, 80% of respondents agreed that it was excellent. while 16% were not sure. However, 4% of respondents are saying that the time was not enough or poor.

**Annex 6**  
**Summary of Attendance**

## **Summary of Attendance**

The Public Consultation on Sudd Wetlands and The White Nile Waters was a five days' program that caught the Nation's Attention by surprise. It was attended by a huge fraction of citizens both on line and in person. The program was organized in three phases.

The first phase took three days and was largely attended by the public. Most of whom were the University Students. On the first day, 360 South Sudanese filled the hall. On the stream live event, over 3,000 South Sudanese were watching. On the second day, 416 South Sudanese attended the Function. Over 2,000 people were watching the program on live video. On the third day, 322 South Sudanese attended the function and 3,000 Were watching live.

The second phase was a Parliamentary Session. It was attended by 337 MPs. Over 2,000 South Sudanese were watching the program live. This was the fourth day of the Consultation.

The third phase which was the last day of public Consultation was for the Minister's and VPs. 3 VPs, 18 Cabinet Ministers and 38 Civil Servants ranging from Undersecretary and Protocol Officers attended the function. This makes a total of 57 Attendees and 52,666 South Sudanese who were watching the Program on Facebook Live stream.

**Annex 7**  
**List of the Sudd Wetlands Public Awareness and Consultation  
Committee**

## Members of the Organising Committee

S/No	Names	Title
<b>A:</b>	<b>High Level Committee</b>	
1.	Akoc Akuei Manhiem	Chairperson
2.	David John Kumuri	Deputy Chairperson
3.	Margaret Michael Lugor	Member
4.	Priscah Achol Akol	Member
5.	Ayii John Akec	Member
<b>B:</b>	<b>Co-Opted Secretariat</b>	
1.	Assoc. Prof. Dr Leju John	Head of Secretariat
2.	Laguya Kenyi Lupai	Secretariat/Publisher
3.	Ayey Madut Ring	Moderators/Secretariat
4.	Gano Mark Nyikang	Secretariat/IT
5.	Deng Mador Koc	Moderators/Secretariat
6.	Nyanchangkuoth Tai	Member/Minutes/Rapporteur
7.	Amico Matueny	Member
8.	Apollo Anyango	Member/Registrar
9.	Agook Mayek Riak	Member/Minutes/ Rapporteur
10.	Kuc Mayur Kuc	Member/Minutes
11.	Nyamach Hoth Mai	Member/Minutes
12.	John Oryem	Minutes Supervisor
13.	Andu Zakaria Lukwasa	Member
14.	Mathiang Malek Mathiang	Member
15.	Santino Ayuel Longar	Member/ Rapporteur
	<b>General List</b>	
1.	Samuel Mabior	Member
2.	Achai Kuol Nyok	Member
3.	Tabitha Nyatuel Tot	Member



<b>S/No</b>	<b>Names</b>	<b>Title</b>
4.	Angelo George Lobeyo	Member
5.	Emmanual Ladu Kose	Member
6.	Panom Tut Thiep	Member
7.	Abraham Adom Awel	Member
8.	Peter Lobojo Onesimo	Member
9.	Yor Mathok Yor	Member
10.	Aweng Bona	Member
11.	Augustino Albino Agok	Member
12.	Sarah Nyamer Kuon	Member
13.	Nyachog Kuoth Tei	Member
14.	Puorchin Matueny Makeny	Member
15.	Rose Nyanyuot Tot	Member
16.	Joseph Dau Kuol	Member
17.	Beny John Nyinypiu	Member
18.	Chol Thon Ajing	Member
19.	Amer Rhoda Aguto	Member
20.	Simon Machiek Ater	Member
21.	Cosphoine Nyanhial	Member
22.	Grace Ayo Alison	Member
23.	Bishon James Koang	Member
24.	Peter Bul Malual	Member
25.	Daniel Deng Wec	Member
26.	Kuot Ater Akeen	Member
27.	Anthony Angok	Member
28.	Daniel Mabior Kuol	Member
29.	James Thon Madut	Member
30.	Bol Jack Jok	Member
31.	Nyaruot Riak	Member
32.	Sarah Nyalut Riak	Member

<b>S/No</b>	<b>Names</b>	<b>Title</b>
33.	Kuol Deng Alor	Member
34.	Ater Makuac Anyuon	Member
35.	Akuet Deng Biong	Member
36.	Changkuoth Deng Riak	Member
37.	Nyadak Kangai	Member
38.	John Jal Keat	Member
39.	Akoi Bul Akoi	Member
40.	Deng John Yaak	Member
41.	Dr Bul Malual	Member
42.	Elizabeth Ajok Malek	Member
43.	Flora Barnas Loki	Member
44.	Flora Pech Majok	Member
45.	Mary Abiong Kuol	Member
46.	Mary Nyamot	Member
47.	Mouch Gatluak Puk	Member
48.	Nyanhial Josephine	Member
49.	Reath Puk Gatluak	Member
50.	Silva Igale Francis	Member
51.	Simon Machiek	Member
52.	Sunday Agok Aruor	Member
53.	Ted Kai	Member
54.	Chol Lual Mathou	Member
55.	Wabayate Luois Zacharias	Member

**Annex 8**  
**President's Speech for the Independence Day Celebrations**



## REPUBLIC OF SOUTH SUDAN The President

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### His Excellency Salva Kiir Mayardit President of the Republic of South Sudan Remarks on Eleventh Anniversary of Independence

July 9, 2022

**Fellow Citizens,**

Today we celebrate the eleventh anniversary of our independence. July 9<sup>th</sup> is an important day in our calendar. It is the day we celebrate the fulfillment of our long-held aspirations to be an independent country. It is also the day we remember the people we lost in our painful journey to statehood. On this day, I would like to congratulate all of you both within the country and across the globe.

**Fellow Citizens,**

Since our country got entangled in the senseless war that we ended in 2018, we have not been able to hold a public celebration on our Independence Day. This is mainly due to war induced economic crisis as well as the corona virus pandemic. This year specifically, we have decided to scale-down public celebration because of other competing national priorities, which did not allow us to commit resources to support a public celebration of our independence.

That said, I urge the public and state governments to celebrate this important event in any way they deem fit. I have already observed motorcycle taxis and rickshaw drivers here in



Juba celebrating by flying our national flag high while doing their daily business. This gesture may look simple, but it demonstrates a deep sense of patriotism.

**Fellow Citizens,**

The lagging economic difficulties responsible for this scale down celebration will not remain with us for a long time. We will work collectively to find a permanent solution that will address it once and for all. We have already started this process. I have directed the Ministry of Finance and Planning to pay all the salary arrears owed to public servants, a task they are about to accomplish at the moment. The Ministry has also started the payment of salary arrears owed to our diplomatic missions and it will continue paying them until all our diplomats are paid their arrears.

**Fellow Citizens,**

The signing of the Revitalized Peace Agreement in September 2018, ended the internal conflict that started in 2013 and the flare up that took place in July 2016. So far, we as the parties to the agreement, have held together and are doing our utmost best to implement it despite ongoing challenges. The permanent ceasefire continues to hold across the country. As a result of the improved security situation, the majority of internally displaced persons (IDPs) in UNMISS camps across the country are returning home. The voluntary return of refugees from neighbouring countries has also been recorded, which demonstrates improved security situation.

The challenge we are facing now is finding resources to support these returnees to re-integrate into their communities. We are calling upon our international partners to support these returnees, especially those returning to rural areas be assisted with tools and seeds to help them produce their food and improve food security.



**Fellow Citizens,**

On critical matters of the implementation of the Revitalized Peace Agreement, I am pleased to inform you that the command structure for the Necessary Unified Forces (NUF) has been established. All the required bills that we need to finalize the implementation of the Revitalized Agreement: the Security Sector bills, the Permanent Constitution-Making bill among others are in their final stage of reading by the Reconstituted Transitional National Legislative Assembly (R-TNLA).

The passing of these bills is critical because they are key to holding credible elections at the end of the interim period. It is for this reason that our people along with our international partners are eagerly waiting for the passing of these bills. I am also adding voice today by urging our members of parliament to put aside partisan politics and engage in genuine debate that will pave the way to passing these bills.

I am also aware that another sticking point that the region and the international community are waiting for is the graduation of the Unified Forces. Plans for graduation of the Unified Forces are in advance stages and the Presidency will sit in the coming days to fix the date for their graduation.

While what I have mentioned are key areas we need to address urgently, I would like to inform you that a roadmap that will guide us on how the Transitional Period will end has been developed. This roadmap provides timelines for the completion of the outstanding provisions in the Agreement. In the coming days, we are going to convene a meeting of the parties to the Agreement to discuss this Roadmap. This is important because we want the Agreement to end peacefully through the conduct of fair, transparent and credible elections.

**Fellow citizens,**



We are concerned by the decision taken by our partners to scale down their support to the Monitoring Mechanisms: The Reconstituted Joint Monitoring and Evaluation Commission (R-JMEC) and the Ceasefire and the Transitional Security Arrangement Monitoring and Verification Mechanism (CTSAMVM). These bodies are vital in providing oversight on issues arising from the implementation of the Revitalized Peace Agreement. Given the vital roles played by these institutions, I am adding my voice to that of IGAD in calling upon our partners to reconsider their decision and provide the necessary funds that will enable these institutions to carry out their functions.

**Fellow Citizens,**

The gains we have made in the implementation of the Revitalized Peace Agreement are being eroded by inter-communal violence across the country. We have lost many lives in Western Equatoria, Eastern Equatoria, Central Equatoria and Warrap States to inter-communal violence. Even more disheartening is the recent violence in Tonj North where many military personnel, including several senior officers lost their lives at the hands of our own civilian population. These soldiers died at the hand of those they have sworn to protect. At personal level, I deeply regret their death and I convey my heartfelt condolences to their families and loved ones.

As a country, we cannot allow this senseless killing of both security personnel and civilians to continue. Justice must be served on behalf of those whose lives have been lost through this pointless violence. Let me remind everyone that the government will not engage in collective punishment when pursuing justice on behalf of those who have been killed. The government will not met out collective punishment, but it will hold those who have killed others accountable for their crimes.

**Fellow Citizens,**



Since we have signed the Revitalized Peace Agreement, we have witnessed incremental steps in the field of development. Individuals and businesses that have been hesitant to invest have now started investing. Juba has witnessed rapid development since 2018.

At the Government level, we are focused on infrastructural development and have initiated road constructions. Without peace, Freedom Bridge would have not been handed over to us. Given that peace and development go hand in hand, I am humbly calling upon each and everyone in this country, irrespective of their political affiliation to work in support of peace in our country. We need the culture of peace to take deep roots among our people.

### **Fellow Citizens,**

In the last few weeks, the country has been engaged in an emotive debate over the issue of dredging the Bahr el Ghazal Basin, specifically the Naam River. In this debate, the contending sides have put forward legitimate arguments both for and against dredging. For example, those who support dredging see it as a permanent solution to persistent floods in low lying areas. Others in the same group see it (dredging) as a means of opening our water ways for river transport that will ease transportation bottlenecks in the country.

On the other side of the debate, dredging without proper studies is viewed as a path to ecological disaster that will change South Sudan's biodiversity forever. This group fears the loss of marshlands which are the lifeline for different animal species and a means of livelihood for our fishermen. In short, this group opposes dredging on the basis of adverse environmental concerns and the anticipated loss of their economic livelihood.

Having followed this debate keenly, I realize that this outcry from both sides came because we have not conducted an informed public consultation that addresses the concerns and fears of those groups. These fears and concerns, whether real or perceived can only be



overcome through public consultation and the conduct of credible scientific studies of the impact of dredging on the surrounding communities and the SUDD ecosystem.

It is only after we have done this will our people on both sides of this debate have confidence to support this project.

To allow our citizens to participate in the consultation process without emotions, I am today freezing any planned dredging activities in the SUDD Region until credible, professional evidence-based studies are carried out on the impact of dredging both on the surrounding communities and their ecosystem. To this effect, I am directing the Ministry of Environment and Forestry to initiate the process of identifying and eventually hiring credible experts who will carry out the said feasibility study.

#### **Fellow Citizens,**

Our country was preparing to receive His Holiness Pope Francis this month. The Holy Father was to be accompanied by his colleagues, the Archbishop of Canterbury and the Moderator General of the Church of Scotland on his historic Apostolic Journey to our country.

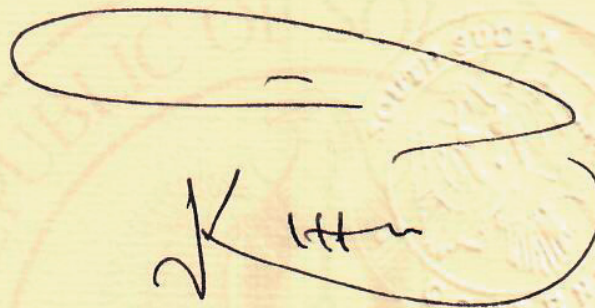
However, on advice of his medical staff, the Pope had to postpone his trip on medical grounds. Since we are still eagerly waiting to receive him in South Sudan, let us all pray for his quick recovery in order for him to fulfil his planned Apostolic Journey to our country.

In a show of genuine commitment to South Sudan, His Holiness sent Cardinal Pietro Parolin, the Vatican Secretary of State, who arrived on July 5, 2022 to deliver the Pope's greetings and convey his wish to visit South Sudan as soon as he recovers.



During his stay in our country, Cardinal Parolin conveyed His Holiness message: calling on us to fully implement pending tasks in the Revitalized Peace Agreement and to give peace and reconciliation a chance. On my part, I commit to upholding peace and reconciliation and asked His Eminence Cardinal Parolin to communicate to his Holiness that peace is being implemented in South Sudan, but with difficulties, because of the ambitious nature of the Agreement itself.

I wish you all fellow citizens a joyful eleventh Anniversary Celebration. Celebrate peacefully in your communities. Thank you all and May God bless you and our country, the Republic of South Sudan.

A handwritten signature in black ink, consisting of a large, stylized 'K' followed by 'iir' and 'Mayardit' written in a cursive script. The signature is positioned above the printed name and title.

**Salva Kiir Mayardit**  
President,  
Republic of South Sudan  
Juba, South Sudan

**Annex 9**  
**SWWDMI Press Statement**

Press Statement  
**Initiative for Public Consultation and Citizens' Awareness on the Sudd and the White Nile  
Water Resources Development and Management Issues,  
Republic of South Sudan**  
Revitalized Transitional Government of National Unity  
Juba, July 4, 2022

Ladies and gentlemen of the press, good morning.

I am Akoc Akuei Manhiem, the Chairperson of the Committee tasked by the Presidency to work on a public consultation regarding the White Nile and its entire water catchment in South Sudan. This public consultation and Citizens' awareness Initiative highlights the position of the Government in responding to the various public calls on plans about the Sudd wetlands and the White Nile water resource development and management issues. These issues are aggravated by the impact of climate change and its variability that have manifested itself in dual problems of floods and droughts over the past few years.

***Let me reiterate that water is life, and it is a resource like no other. For instance, while oil is a non-renewable resource, water is a renewable resource if it is sustainably managed.***

This statement informs the public that the Presidency has invited a panel of both international and national experts, with diverse knowledge and expertise, to deliver an evidence-based analysis on proposed projects on the White Nile River, its tributaries, and wetlands. The panel of experts will facilitate the public discourse on best options for flood management system, water policies, and implications of the approaches to the proposed dredging operations on tributaries of the White Nile. It will also highlight pros and cons of resuming the Jonglei Canal Project, considering the effects of large-scale hydro-climate issues of the Sudd wetlands in South Sudan.

Regarding the key objective of this Initiative, let me highlight the following specifics.

First, this public consultation and fact-finding event will be open to individual members of the public on July 10-12, 2022. Further, the experts will make their presentation to the legislature on July 13, 2022, and on the last day, July 14, 2022, the experts will present to the cabinet, at the Freedom Hall in Juba, South Sudan.

Second, the Government has invited internationals and National experts, including several water related resource persons, namely:

- The National Ministry of Water Resources and Irrigation and its key experts.
- The National Ministry of Environment and Forestry, and its key experts.
- South Sudan public universities, including respective experts, research institutions, and civil society organizations.

Third, new information has surfaced, indicating the arrival of dredging equipment in Unity State a few weeks ago. To address the mounting public concerns, the Presidency has formed a committee to foster discourse. The emphasis is that decisions and policies on South Sudan water resources shall only be determined and developed by the will of the people through their leadership, backed by scientific studies and facts, without pressure from anywhere.

Finally, the Revitalized Transitional Government of National Unity is urging the media and the people of South Sudan to seize this rare opportunity and actively participate in this public discourse concerning the future of our Sudd wetlands and the White Nile water resource development and management. This should be done in a manner which is compatible with governing's Regional and International laws, and environmental and social safeguards for the Sudd's delicate eco-system, as well as with the Bahr el Ghazal and the Sobat wetlands.

In closing, let me go on a record to say that the future of South Sudan belongs to her people. I am, therefore, urging you all to please come and raise your concerns and share your views on these critical issues that affect the survival of our citizens and has huge implications for our potential growth and viability. You and I can help shape the Government's policy on managing waters of the White Nile, flooding, and droughts, and all resources the White Nile brings to this bountiful Republic of South Sudan.

For your information, the event will be recorded and aired for public benefit.

Members of the public, Ladies, and gentlemen, thank you for listening. I will now take a few questions from the press.



**Akoc Akuei Manhiem**

Chairperson

Public Consultation and Awareness Committee on the Sudd and the White Nile water resources development and management.

## THE REPUBLIC OF SOUTH SUDAN



### PUBLIC AWARENESS AND CONSULTATION ON THE SUDD WETLANDS & THE WHITE NILE WATER RESOURCES DEVELOPMENT AND MANAGEMENT INITIATIVE

Opening Remarks by Chairperson of the Committee Spearheading the Public consultation on  
the Nile Water and Management and Related Matters  
Juba, Republic of South Sudan  
Sunday, July 10, 2022

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His Excellency, Gen. Salva Kiir Mayardit, President of the republic of South Sudan

Rt Honorable Speaker and Member of National Parliament  
Rt Honorable speaker and Members of the Council of State

Eminent leaders in various fields  
Members of the public, women, and Youth  
Ladies and gentlemen:

Good morning.

Invited guests, ladies and gentlemen, on behalf of the organizing committee, I welcome you to today's event, which marks an important official launch of the public consultation and citizen awareness on the Sudd Wetlands and White Nile Resource Development and Management.

This day did not fall out of the sky; it happened because you the people of South Sudan willed it and your President heard your voice, In this context, let me register the following:

First, I would like to take this golden opportunity to appreciate His Excellency, the President of the Republic of South Sudan, for trusting young people to lead this vital process. The President has given the people of South Sudan an opportunity to come together, discuss options, and help the leadership to arrive at informed decisions.

I can report that the Committee tasked to work on the organisation of public consultation regarding water resources of the White Nile River and its entire watershed in South Sudan delivered, as evidenced by gathering today in this hall.

To this objective, the Committee Updates His Excellency on progress made over the last few days, namely:

- We released a concise Press Statement on July 4<sup>th</sup>, 2022, and was well received:
- We invited and received the International experts and engaged the National experts

Concerned Ministries, many of whom are present today in this hall, heeded the call and participated to the extent humanly possible alongside committee members.

Second, we hope the organization and execution of event like this would be a signal to many good things to come to the country, where public policymaking involves give and take, with the citizens' views at the center of it all.

We aspire to live in a country where the ideas are shared and discussed faithfully without fear; a country where the energy of the young people is utilized to promote development rather than for the destruction; a country where insecurity, suspicion, and mistrust against each other cease to exist. We can agree that President Salva Kiir Mayardit has already opened the way and trusted the youth of the republic of South Sudan to lead the way for this momentous public dialogue on the future of the White Nile and its tributaries.

Third, the objective of our work as the Committee is to make sure we convene this discourse on the initiative of the President's calling for the citizens of South Sudan to come and use this event as a platform; to address the mounting concerns of dredging, untangling of both pros and cons of Jonglei canal project and discussions on the need for scientific approaches on the utilization of water resources in the country. The right to your views is the right that nobody can take away from you. Whatever position that our government takes in the end, the public view is critical: it has to be evidenced-based and centered on the public interest.

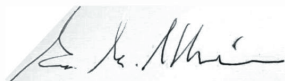
In closing, ladies and gentlemen, you have done your best, notwithstanding any political, social or any other affiliations. I have seen that the people of South Sudan have united to defend their waters against internal and external threat, underscoring that the White Nile, including its tributaries, is the lifeline of the people of South Sudan.

The committee, therefore, invites all of us to fully participate, listen to our experts and express our views in a manner that is constructive and productive.

With these remarks,

- We look forward to His Excellency officially opening the public awareness and consultation initiative today on July 10<sup>th</sup>, 2022, allowing him to reiterate his Initiative and the vision over the management of White Nile Water resources.
- Ladies and Gentlemen, I would like to show you the committee who have worked tirelessly in a short period of time to put this platform together for the people of South Sudan, specially supported by my deputy David John Kumuri

God bless you all.



**Akoc Akuei Manhiem**

Chairperson

Public Consultation and Awareness Committee on the Sudd and the White Nile water resources development and management.

## **The Consultation Process in Pictures**



