

FEASIBILITY STUDY AND MASTER PLAN FOR DEVELOPING NEW WATER SOURCES FOR NAIROBI AND SATELLITE TOWNS

STAKEHOLDER FORUM

Intercontinental Hotel

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Honorable Guests; Bwana Chairman; Bwana CEO; All other CEOs, Directors, Chairpersons and Director General; Partners, Friends and Colleagues; Ladies and Gentlemen:

Thank you for inviting me to be part of this important forum. I am delighted to be here today. Today's meeting is a follow up to the initial consultations organized by the MOWI and the AWSB over two years ago at the Safari Park Hotel, where the PS, MOWI, told us that Nairobi was facing chronic water supply problems, and addressing the City's water supply needs was a high political priority of his government. He requested us and challenged us to find short term and long term solutions to address the water supply needs of Nairobi and its Satellite Towns. Ladies and gentlemen, we are happy to report that the seeds and ideas that were planted at Safari Park have started to germinate and show signs of bearing healthy fruit now. This work, the focus of today's forum, is still in progress and the challenges ahead are enormous. However, the potential benefits and payoffs, if we continue on the path we have started to invest in, are very significant for Kenya and Nairobi and its Satellite Towns.

Let me start with highlighting the scale and magnitude of the water supply challenges facing Kenya and Nairobi.

We have heard that Kenya's endowment for water is very limited. Let me put this into perspective. Basically for every glass of water each Kenyan has, each Ugandan has 6 glasses and each Tanzanian has 5 glasses. It simply means that while Kenya celebrates its amazing Sprinters and Marathon Runners (its fantastic endowment), water remains a limited endowment. Your neighbors can afford to throw and waste 4 to 5 glasses of water per person and still be at the same level as a Kenyan. This fact

that water is a scarce resource cannot be changed. Kenya simply needs to learn to value and manage its water resources. It currently is not!

Kenya's economy is vulnerable to climate and hydrological variability. This vulnerability is compounded by under investments in water resources development and management. As a consequence, Kenya is held hostage to hydrology. Climate change is likely to complicate this variability. The nation does not have adequate physical or management capacity to deal with either too much water (floods) or too little water (droughts). Just look at the ongoing drought and famine in Dabaab today. Is this a new problem? No. Are the causes not known? No. They are. It is a natural resources management problem compounded by neglect in prioritization and decision making. It is also a failure of water supply planning. Are there no water resources in that region?. No. That area has amongst the largest freshwater aquifers in the county, the Merti aquifer, that Kenya shares with Somalia right under Dabaab, the largest refugee camp in the country. Look at Western Kenya and ask why does it flood every time it rains in Budalangi? It does so because land cover has been so depleted that a minor or normal rain event produces a rapid runoff response or a flood. This happens each time it rains.

Now let us dwell a little on the economic consequence of this vulnerability.

Floods and drought impose a heavy toll on the economy. A 2004 World Bank analysis, that I had the privilege to lead, of the economic impact of the 1997-98 El Nino Floods and the 1998-2000 La Nina drought underscored a heavy toll on the economy. Let me illustrate this point.

- *We estimated 11% loss to the GDP from the impact of the 1997/98 El Nino Floods as a result of extensive damage caused in the transport, water, agriculture and health sectors.*
- *We also estimated 16 % loss to the GDP during the two consecutive years of the La Niña drought from 1998-2000, the worst drought on recorded history in Kenya. The sectors impacted were agriculture, energy, health, livestock and manufacturing.*

A similar cycle but in a reverse order occurred in 2007-2009. Given their regularity, over the long term, floods and droughts are estimated to cost the

economy about 2.4 % of the GDP per annum. This is a very serious impact on Kenya's economic performance and competitive edge. In addition, water resources degradation (resulting from weak allocation of water, increasing pollution, and rapidly degrading catchments and recharge areas) costs Kenya an additional 0.5% of the GDP per annum. In total, the two factors – variability and degradation – costs nearly 3 % GDP loss per year.

Proper management of, and investments in the development of water resources are essential and necessary conditions for growth and poverty alleviation. Now the question one may reasonably ask: what does this have to do with Nairobi? A lot. Let me elaborate.

Nairobi, as we have already heard, houses about 3 million people and hosts an additional 2 million or so people who come in and out daily. It also generates almost 50 % of the nation's GDP. The water supply problems therefore not only impact the health and welfare of the many million's of the city residents – rich and poor like - but also entail a huge cost on the nation's economic base, including its industrial base and service sectors. Addressing the City's water supply infrastructure needs is both a high political and a high economic priority. This forum must address these urgent priorities.

Now what can we learn from others?

Mombasa faces even worse water supply problems compared to Nairobi. Instead of seeking innovative and cost effective solutions, the municipality for almost over a decade has been fixated with Mzima Springs as the one and only long term solution. On the basis of a recent Chinese funded study, the cost of that pipeline is estimated to be US \$ 500 million! Neither the GOK nor the CWSB afford this price tag. It is only now we are starting to address the water supply problems of Mombasa a fresh through a more systematic process considering all options surface and groundwater. The World Bank and AFD are supporting this systematic approach for the Coast Region.

The City of Dar es Salaam also faced similar water supply problems with its old systems no longer capable of meeting the growing needs and demand outstripping supply and new source development lagging behind- just like Nairobi. There too, the water authorities were for far too long fixated on favorite options that were either too complicated or too expensive to deal with. Once we overcame those hurdles, and it took a while to do so, and started to adopt an open minded process but one informed by good science, analysis and engineering, a process similar to the one we are now adopting for Nairobi, we found amazing, long term and cost effective solutions for Dar es salaam. The World Bank and other partners are currently funding the implementation of those options for Dar es Salam today.

I have been fortunate to have been leading the water supply masterplan studies for both Mombasa and Dar es Salaam, and therefore speak from experience.

It is that kind of innovative spirit and approach coupled with good science, engineering, economics and environmental and social analysis that we have tried to encourage we take for Nairobi. Our goal has been to come up with long term, cost effective and sustainable solutions for the City and its Satellite Towns, and at the same time, as sound results start to emerge, to also start to develop financing options to start preparing to fund initial investment needs.

Over these two years since the Safari park meeting, under the leadership of the PS, the AWSB partnered with the World Bank and AFD using existing project funds to support the preparation of the **FEASIBILITY STUDY AND MASTER PLAN FOR DEVELOPING NEW WATER SOURCES FOR NAIROBI AND SATELLITE TOWNS, which is the subject of this forum.** This work, which entails a complex set of technical, financial, economic, environmental and social analysis, has advanced well with some delays and minor hitches. The work is generating promising solutions for meeting short, medium and long term water supply needs of Nairobi and Satellite Towns.

Today's meeting focuses on the draft results of a key study which is part of the feasibility study and master plan - The Draft Water Sources Options Review Study – whose findings will soon be presented. This is a critical study with high investment consequences of between \$ 900 m to over a billion US \$ over the next 25 years. Its conclusions and recommendations will shape all subsequent work to complete the masterplan. Finalizing this study properly is therefore fundamental to developing sustainable short term, medium term and long term water supply solutions for Nairobi and Satellite towns **that are fundable**.

In summary, I would like to conclude by encouraging and urging active, constructive and critical feedback from each of you - the stakeholders - on all aspects of the study results to be presented today. All comments and feedback will be taken seriously, and considered and addressed carefully. Asanteni sana!

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