

Yoweri Kaguta Museveni, President of the Republic of Uganda

The best way to protect the Nile

President Yoweri Kaguta Museveni on June 22 addressed the Nile Basin Heads of State Summit at State House Entebbe. Below is his speech

- Your Excellencies, the Heads of State and Government of the Nile Basin countries,
- Honorable Ministers,
- Representatives of Nile Basin States,
- Ladies and gentlemen.

I wish to welcome you all to Uganda and particularly to this first ever Nile Basin Heads of State Summit that is being held here in Uganda.

I have repeatedly pointed out that the biggest threats to the Nile and, possibly, other rivers in Africa are the following:

- The growing population of Africa,
- The lack of electricity, especially in the tropics, where the two branches of the Nile originate from,
- Lack of industrialisation in the tropics,
- The continued reliance on primitive agriculture for subsistence in the tropics, and
- The destruction of the environment upon which the Nile depends.

1. The population of Africa was 153 million in 1900. It is now projected to grow to 2.4 billion by 2050.

The population of Uganda was 1.8 million by 1900. It is now 40 million. A bigger population, by itself, should not be a problem. In fact, it should be a blessing. After all, Africa is almost 12 million square miles (the exact figure is 11.75 million sq. miles or 30.22 million sq. km).

This means Africa is 12 times the size of India and four times the size of China. Yet China and India have been having bigger populations than Africa until recently. The problem, therefore, is not a bigger population. It is the continued under-development of that population.

It is the continued pre-industrial, pre-capitalist and traditional characteristics of this population that are the problem. In the past, the population was too small to disturb the eco-system of the Nile River system.

The modest increase of the population, alongside the continued under-development of the population, becomes a problem by default. With development of the population, the bigger size, as can be seen from China, is actually a big advantage. They are workers, entrepreneurs, scientists and consumers.

Since, however, the economies are still under-developed, we should examine, one by one, the problems mentioned above.

2. The next point, having noted the phenomenon of population increase, is the scarcity of electricity. There is a measurement of electricity known as kilowatt per hour (kwh). Uganda's electricity consumption per capita in the year 2012 was 69kwh, today it is 150 kwh and, after the completion of Karuma, Aswa and Isimba in 2018/19, the consumption per capita will be 500kwh. Some of the countries in the Nile Basin have got as low as 28kwh per capita.

The US and Norway, on the other hand, have got kwhs per capita of 12,973kwh and 23,000kwh respectively. What does this mean?

It means the cutting of trees and the destruction of the other bio-mass.

In Uganda, currently, we are destroying 32 billion cubic metres of the bio-mass per annum. The destruction of the bio-mass interferes with the transpiration of moisture from the soil to the atmosphere which helps in the formation of rain. The only way to stop the cutting of trees is to electrify all the Nile Valley countries so that the population is weaned from using the bio-mass as fuel to the use of electricity. Abundant



President Yoweri Museveni and his Egyptian counterpart Abdel Fattah el-Sisi

and cheap electricity will also mean something else. It will mean the lowering of the costs of production in the Nile Valley which will, in turn, mean the attraction of massive investments into the area. That will enable us to tackle the third of the four problems stated above. This is the lack of industrialisation in the Nile Valley.

3. Lack of industrialisation in the Nile Valley means that too many people are still in primitive agriculture and fewer people are in industry, services, ICT and the public services.

In the case of Uganda today, agriculture accommodates 68.4% of the country's labour force, industry employs 7.4% of the people, services employs 24.2% of the people, ICT employs 6.5% of the total labour force and the public service employs 2.5% of the labour force. Note, Your Excellencies, that, as far as agriculture is concerned, the word "accommodates" rather than "employs".

This is deliberate because many of the people that are in agriculture in Uganda do not have to be there. The 40 million acres of arable land that Uganda has do not need all these millions of people to produce efficiently. Much less numbers are needed to rationally optimise production. The crowding in agriculture is, therefore, part of what is called disguised unemployment. Too many people in primitive agriculture put a lot of pressure on the forests, the mountain ranges, the river banks and on what is erroneously called the wetlands (entobuzi, ethioogo, etc).

They put pressure on these elements of the environment because the increasing population is ever in search of more and more land for agriculture.

This is because the yield per acre is low compared to the potential. The yield per hectare of bananas has been 5.3 tonnes in the villages while at the Nyaruzilinga project which is run by one of our scientists with the government support, the yield is 53 tonnes. More and more land for agriculture, but for low yields.

4. The crowding of the population in agriculture is also on account of the lack of alternatives. The other sectors: industry, services, ICT and the public services are under-developed.



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If these sectors were developed, the population would shift from agriculture to those sectors. In the US, the percentage of the population that is

in agriculture is only 2%. That is the same case with the UK.

With the electrification of the Nile Valley countries, industrialisation is possible. With that, the population to migrate from agriculture to industry, services, ICT and the public services.

People may wonder why I am including the public service in the sectors that are under-developed. Yes, even that sector is under-developed in some aspects. Uganda should have a Police force of 80,000 personnel given our population of 40 million to achieve the recommended Police-population ratio of 1:500 people.

We only have 43,000 Police-persons because given our still narrow tax base.

Industrialisation, the development of the services, ICT and public services sectors, would therefore, lead to target No. 4, the ending of the reliance of a large portion of the population on primitive agriculture. Agriculture would, then, produce much higher yields of food and raw-materials of which our potential is mind-boggling. Uganda, even when still relying on low-technology, is the second biggest producer of bananas in the whole world at 10 million tonnes per annum.

We produce four million bags of 60kg bags, four million tonnes of maize, two billion litres of milk, etc. Some of these quantities, with better scientific methods, can increase by a factor of 10 as we saw with the example of the bananas earlier from 5.3 tonnes to 53 tonnes per hectare at Nyaruzilinga.

5. The shift of the bulk of the population from agriculture to industry, services, ICT and public service would, now, address the fifth factor. This is the problem of the environmental degrading referred to earlier. While there is the global warming caused by dirty factories in other parts of the world that increase the carbon-dioxide in the atmosphere, locally there also the big damage to the environment that has got very serious implications for the Nile.

What are these damages to the environment? The damages are many; but the ones with implications for the Nile are two: invading and destroying the wetlands and destroying the forests. There are other damages e.g. causing silting of the water bodies because of soil erosion, etc.

However, for now, let us concentrate on these two: destruction of wetlands and forests.

According to our scientists, 40% of the rain Uganda receives comes from the local wetlands, water bodies and forests through evaporation and transpiration.

Evaporation is caused by plants sucking water from the soil or from the water bodies and throwing it in the atmosphere as moisture. This is what gives us the 40% of our rainfall.

The northern part of our country is a coast free zone for the scientific research in this matter. The West Nile and the Acholi regions of our country are on the same latitude as our Karuma region.

Karuma region, however, only receives 25.50 inches (650mm) of rain on average while the other two receive 55.9 inches (1420mm) per year. What is the cause of the difference? The swamps in South Sudan and the forests in Congo and western Uganda.

Earlier on, I pointed out that many of the water courses are erroneously called wetlands (entobuzi, ethioogo, ekisharara, etc). All these are, in fact, tributaries of the Nile.

God covered these tributaries with massive mats of papyrus and other swamp grasses such as *gugege* in order to also manufacture the 40% of our rain. Destroying them, means

destroying the 40% of our rain. How will this affect the Nile down-stream? The experts can fill us in with the details. 60% of our rainfall comes from the Indian and the Pacific oceans. Is it somehow triggered or assisted in any way by the 40% that is local? Will the loss of the 40% somehow affect the 60%? The experts can educate us.

All this is totally unnecessary. By working together and causing the socio-economic metamorphosis in the Nile Valley, we can avoid all this as we work with our Paris Conference partners to deal with the other environment challenges – the greenhouse gases, etc. All the Nile Valley countries should be First World countries to enjoy high income prosperity as we protect the Nile.

Moreover, while it is proper to focus our minds on the 85 billion cubic metres per annum that the Nile generates, we should also remember that God has given Africa other river systems. The Congo River, for instance, generates 3,000 billion cubic metres of water per annum. Every minute of the day and night, this huge amount of water is going into the ocean, the Atlantic. The ocean is obviously not thirsty for this fresh water. Have we talked to our Congolese brethren about this huge resource as part of a prosperous and First World Nile Valley? The peoples of this area are similar or linked since time immemorial. It is in order for their leaders to try and evolve convergence regarding a prosperous future for them.

We have spent so much time speaking about the rivers. How about the oceans. Why do we forget that the rivers come from the oceans? Evaporation takes place over the oceans. This evaporation creates rain which fills the rivers we are talking about.

Fortunately, our area is surrounded by oceans: the Indian Ocean, the Pacific Ocean further east, the Mediterranean and the Atlantic oceans.

Science is by the day empowering us to be able to artificially cause man-made evaporation using electricity. Have I not heard people calling this desalination? What is the cost of this process per cubic metre of water? Is it affordable? Why do we not use our abundant uranium to generate huge amount of nuclear energy to desalinate sea water? When this is feasible and affordable, then the sister countries that are at the coast (DRC) will now become the up-stream and we the countries that are the source of the Nile will become the down-stream countries.

I know that our water ministers have been meeting and have evolved ideas, which is commendable. I, however, see no contradiction for this high-level summit to take place so that we address the issue of the Nile strategically – at the strategic level. When you start from different strategic stand points, you come to different conclusions.

If you start from a parochial strategic stand point of what Uganda alone should get from the Nile without remembering that Uganda's prosperity can be greatly assisted by the prosperity of the other Nile countries, you may come to different conclusions than if you know that the prosperity of the other countries greatly assist your own.

That brings me to my last question. In terms of one's prosperity, what is more important, the natural resources or the human resources? My own answer is unequivocal. The human resource is even more important than the natural resources. Do we need examples? We have quite a few. Japan, China and South Korea are countries without huge natural resources, but with huge human resources. Is it by accident that in terms of the size of the GDP, China is No. 2, Japan No. 3 and South Korea No. 11 globally?

Have we sought of how to use the human resource of the Nile Basin of 550 million persons for mutual prosperity as we look at the natural resources God gave us?

Uganda is already benefiting a lot from selling exports to the brother countries of the EAC and Congo and also buying from them. Yet, this is just the tip of the ice-berg. The potential is much greater.

I thank you.