



REPUBLIC OF CAMEROON
Peace-Work-Fatherland



MINISTRY OF WATER RESOURCES
AND ENERGY



Official commissioning ceremony of the installations of
the Drinking Water Supply Project for the City of Yaounde
and its Surroundings from the Sanaga River **(PAEPYS)**

Batchenga, 20 August 2024



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« The Project to Supply Drinking Water to the City of Yaounde and its Environs from the River Sanaga is virtually completed. Its imminent commissioning will help to substantially reduce the drinking water deficit in the city of Yaounde ».

***Paul Biya, Head of State's end-of-year 2023,
and New Year 2024 Message to the Nation***





Joseph DION NGUTE
The Prime Minister, Head of Government



Gaston ELOUNDOU ESSOMBA
The Minister of Water Resources and Energy

PRESENTATION OF THE DRINKING WATER SUPPLY PROJECT FOR YAOUNDE AND ITS SURROUNDINGS FROM THE SANAGA RIVER (PAEPYS)



1. Project Background and Justification

Under the High Patronage of **His Excellency Paul BIYA, President of the Republic**, Cameroon aims to become an emerging country by 2035. Several years ago, the Head of State launched a vast programme known as the “**Great Opportunities Programme**”, which has resulted in the implementation of a number of structuring projects, including the **Drinking Water Supply Project for Yaounde and its surroundings from the Sanaga River (PAEPYS)**. The overall aim of this project is to provide a lasting solution to the drinking water production deficit for the city of Yaoundé and its surroundings by producing an additional 300,000 m³/d in the current phase, extendable to 400,000 m³/d in the future extension phase.

2. Main objectives of the project

Increase drinking water supply in the city of Yaounde

The city of Yaoundé currently receives 185,000 m³ of drinking water per day, 135,000 m³/d of which comes from the Akomnyada water treatment plant in Mbalmayo and 50,000 m³/d from the renovated Mefou plant in Yaoundé. This supply still falls short of demand, which is estimated at 250,000 m³/d. The PAEPYS project is will fill this major gap by supplying an additional 300,000 m³/d of drinking water in its initial phase, then 400,000 m³/d in the extension phase.

Supply drinking water to cities and localities crossed by the project

The PAEPYS project will supply drinking water to a number of cities and localities along its banks, including Batchenga, Obala and Nyom.

Ensure a gravity distribution of drinking water and electricity savings in the city of Yaounde

The head tank, which receives drinking water from the Emana-Batchenga water treatment plant, is built on Mount Ndindan, at an altitude of 873.6m. As this is a higher ground level, the various drinking water storage and distribution points in the capital will be supplied by gravity. This reduces or even eliminates the need for

the existing pumping stations in the city of Yaoundé, thereby facilitating the technical operation of the network and reducing operating costs, notably, by reducing the Concessionaire's electricity consumption in the city of Yaoundé.

3. KEY ACTORS OF THE PROJECT

Contracting authority: Ministry of Water and Energy;
Project manager: SEURECA/A2PE/BETEM consortium;
Contractor: SINOMACH;
Geotechnical assistance to the contracting authority: LABOGENIE;
Completion period: 90 months;
Type of contract: EPC (design, supply and construction);
Financing :
Exim Bank of China: 85% of the total cost of the works;
State of Cameroon: 15% of the total cost of the works.

4- BRIEF DESCRIPTION OF THE PAEPYS PROJECT

4.1. The raw water catchment and pumping station

The raw water catchment and pumping station, with a pumping capacity of 315,000 m³/d, is built on the left bank of the Sanaga River 300 m downstream of the Nachtigal bridge and comprises the following main sections:
a raw water pumping room equipped with seven (07) horizontal centrifugal pumps, each with a 1,000 kW power rating, a 113.5 m discharge head and a flow rate of 2,187 m³/h. One of the seven (07) pumps is an emergency pump;
HV 30kV/6kV power transformer substation;
Equipment control and command rooms;
Six modern, fully-equipped houses for the operating staff;
a DN 1800 ductile iron pipeline to transfer raw water to the water treatment plant at Emana-Batchenga.

4.2. The water treatment plant

The water treatment plant, built in the locality of Emana-Batchenga about 7.5 km upstream of the raw water catchment and pumping station, is mainly composed of the following elements:

Water treatment works, including: Distribution and coagulation tanks, six (06) PULSATUBE decanters, each with a 2,218 m³/h flow rate, twelve (12) AQUAZUR V filters, each with a 1,070 m³/h flow rate, two (02) sterilisation contact tanks with a 3,125 m³ capacity, two (02) treated water tanks, each with a 5,000 m³ capacity, two (02) pH adjustment tanks, each with a 6,417 m³/h flow rate;

Equipment control and command rooms;
A DN 1800 pipe to transport treated water to the Nkometou III recovery station;
A DN 200 pipe to transfer treated water to the Batchenga

water tower;

Auxiliary buildings, including: a power transformer substation, a building for reagents, and a treated water pumping room equipped with seven (07) horizontal centrifugal pumps, each with a 1,600 kW power rating, a 146.5 m discharge head and a 2,083 m³/h flow rate. The seven (07) pumps include one (01) for back-up;

An operations building;

Thirteen (13) modern, fully-equipped houses for the operating staff.

4.3. The Nkometou III treated water pumping station

It is built at Nkometou III and has the following main components:

The discharge capacity of the pumping station is 295,000 m³/d, of which 285,000 m³/d is pumped to the Nyom II pumping station and 10,000 m³/d is distributed by gravity to the town of Obala;

the buffer reservoir has a volume of 4,000 m³ ;

The pumping room is equipped with seven (07) pumps in service, including one (01) for back-up;

the HVA 30kV/6kV electricity transformer substation;

Equipment control and command rooms;

four (04) modern, fully-equipped houses for the operating staff.

4.4. The Nyom II treated water pumping station

The treated water pumping station built at Nyom II has the following main components:

the discharge capacity of the pumping station is 295,000 m³/d, of which 285,000 m³/d is pumped to the Nyom II pumping station and 10,000 m³/d is distributed by gravity to the town of Obala;

the buffer reservoir has a volume of 4,000 m³ ;

The pumping room is equipped with seven (07) pumps in service, including one (01) for back-up;

the HVA 30kV/6kV electricity transformer substation;

Equipment control and command rooms;

four (04) modern, fully-equipped houses for the operating staff.

4.5. The Ndindan reservoir

The reinforced concrete drinking water reservoir built on Mount Ndindan at an altitude of around 873.6 m has a volume of 6,000 m³. Connected to the existing 2,000 m³ reservoir, it supplies drinking water by gravity to the other water towers and distribution reservoirs in the city of Yaoundé.

4.6. The Water transport pipes

The project's water transport pipelines total approximately 102 km and are made of ductile cast iron or HDPE:

Raw water is transported from the Nachtigal raw water pumping station to the Emana-Batchenga water treatment plant via a DN 1800 ductile cast iron pipe;

Treated water is pumped from the Emana-Batchenga water treatment plant to the Ndindan reservoir in Yaoundé via a DN 1800 ductile cast iron pipe, over a

distance of approximately 55 km;

Drinking water is transferred from the Ndindan reservoir to the Etoudi water tower via a DN 1400/1200 ductile iron pipeline;

Another DN 1200/1000 pipe transports drinking water from the Ndindan reservoir to the Djoungolo water towers and the Ngoa-Ekelle reservoirs via a connection located at a distribution manhole at the entrance to the Central Mosque in the Briqueterie neighbourhood of Yaoundé;

A DN 450 ductile iron pipe delivers drinking water from the Nkometou III treated water pumping station to the Ombolbingana crossroads in Obala;

A DN 250 HDPE pipe carries drinking water from the Nkometou III treated water pumping station to the Obala water tower;

A DN 250 HDPE pipe from the Emana-Batchenga water treatment plant to supply the Batchenga water tower;

three (03) HDPE DN 200, DN150 and DN150 pipes run from the Nyom II treated water pumping station to the Nyom II neighbourhood.

4.7. The Nkometou III substation and power transmission lines

The PAEPYS project is supplied from the 225/90/30 kV Nyom II source substation, via a 90/30 kV Nkometou III power transformer substation and lines detailed as follows:

A 90 kV power transmission line from the 225 kV substation at Nyom II to the 90/30 kV power transformer station at Nkometou III;

A 30 kV power transmission line from the Nkometou III substation to the Emana Batchenga water treatment plant;

A 30 kV power transmission line from the Emana Batchenga water treatment plant to the raw water collection and pumping station at Nachtigal;

A 30 kV power transmission line from the Nkometou III substation to the Nkometou III pumping station;

A 30 kV power transmission line from the 225/90/30 kV substation at Nyom II to the Nyom II treated water pumping station;

Three (03) modern, fully-equipped houses for the operating staff.



PROGRAM OF THE CEREMONY



- 08:30 AM** : INSTALLATION OF THE POPULATION AND ANIMATION GROUPS;
- 09:00 AM** : ARRIVAL OF GUESTS;
- 09:30 AM** : ARRIVAL OF RELIGIOUS, TRADITIONAL, MILITARY AND LOCAL ADMINISTRATIVE AUTHORITIES;
- 09:45 AM** : ARRIVAL OF LOCAL COUNCILLORS AND MEMBERS OF PARLIAMENT;
- 10:00 AM** : ARRIVAL OF THE SENIOR DIVISIONAL OFFICER OF LEKIE;
- 10:15 AM** : ARRIVAL OF THE GOVERNOR OF THE CENTRE REGION;
- 10:30 AM** : ARRIVAL OF REPRESENTATIVES OF DIPLOMATIC MISSIONS;
- 10:45 AM** : ARRIVAL OF MEMBERS OF GOVERNMENT;
- 10:50 AM** : ARRIVAL OF THE AMBASSADOR OF THE PEOPLE'S REPUBLIC OF CHINA TO CAMEROON;
- 10:55 AM** : ARRIVAL OF THE MINISTER OF WATER AND RESOURCES ENERGY, WELCOMED BY THE GOVERNOR OF THE CENTRE REGION;
- 11:00 AM** : START OF CEREMONY
- ➔ SINGING OF THE NATIONAL ANTHEM;
 - ➔ WELCOME SPEECH BY THE MAYOR OF BATCHENGA;
 - ➔ PRESENTATION OF THE PROJECT BY THE BUILDER SINOMACH;
 - ➔ A WORD FROM THE REPRESENTATIVE OF THE LEKIE TRADITIONAL AUTHORITY;
 - ➔ A WORD FROM THE REPRESENTATIVE OF THE RECIPIENT COMMUNITIES ;
 - ➔ ADDRESS BY THE AMBASSADOR OF THE PEOPLE'S REPUBLIC OF CHINA TO CAMEROON
 - ➔ SPEECH BY THE MINISTER OF WATER RESOURCES AND ENERGY;
 - ➔ CUTTING OF THE SYMBOLIC RIBBON AND UNVEILING OF THE COMMEMORATIVE PLAQUE;
 - ➔ SITE VISIT ;
 - ➔ FAMILY PHOTO ;
 - ➔ INTERVIEWS ;
 - ➔ REFRESHMENT;
- 2:00 PM** : END OF CEREMONY.

