

# **Agreement between the government of the Republic of South Africa and the government of Portugal in regard to the first phase of development of the water resources of the Cunene river basin Lisbon, 21 January 1969<sup>61</sup>**

(<sup>61</sup>Portugal, Dario do Governo. No. 250, 28 October 1970, p. 1589.)

This Agreement is in pursuance of:

1.1 - The Agreement between the Government of the Republic of South Africa and the Government of Portugal in regard to rivers of mutual interest and the Cunene River Scheme signed in Lisbon on 13th October 1964.

1.2 - Comprehensive studies carried out at the direction of both Governments in accordance with section 1 of the said Agreement of 13th October 1964, as well as various discussions and negotiations at technical and diplomatic levels on the best joint utilization of the water resources of the Cunene River Basin in terms of the said section, and is aimed at achieving the following benefits:

- (a) The regulation of the flow of the Cunene River;
- (b) The improvement of generation of hydro-electric power at Matala;
- (c) Initial irrigation and the supply of water for human and animal requirements in the middle-Cunene;
- (d) The supply of water for human and animal requirements in South West Africa and for initial irrigation in Ovamboland;
- (e) The generation of hydro-electric power at Ruacana.

General aspects:

The two Governments agree:

2.1 - That the part studies carried out by the South African and Portuguese study groups taken in conjunction shall serve as a guide for the development of the water resources of the Cunene River basin and that the optimum position, character, dimensions and objectives of each component, as well as the programme and priorities to be observed in their execution, be established on the basis of technical, economic, sociological and other important considerations that shall prove to be relevant at the time a decision is to be made.

2.2 - That a Permanent Joint Technical Commission be established, which shall act solely in an advisory capacity, to study and report on matters relating to the present Agreement.

The Commission shall consist of an equal number of members from each country, appointed by the respective Governments. The regulations under which the Commission will operate shall be subject to approval by both Governments. Works to be executed in the first phase:

It is herein agreed that the works to be executed in the first phase of the development of the water resources of the Cunene River basin shall be:

3.1 - A dam at Gove built to a full supply level of 1590 m above mean sea level (Portuguese datum), for the purpose of regulation of the Cunene River.

3.2 - A dam at Calueque built to a full supply level of 1098 m above mean sea level (South African datum), for the purpose of the further regulation of the flow of the Cunene River in accordance with the requirements of the power station to be built at Ruacana.

3.3 - A scheme at Calueque for pumping water from the Cunene River to supply water for human and animal requirements in South West Africa and initial irrigation in Ovamboland.

3.4 - A hydro-electric power station at Ruacana and associated diversion works for the supply of power mainly to South West Africa.

Provisions regarding the first phase works:

4.1 - Gove dam:

4.1.1 - The design, plans, specifications, tenders, tender adjudication, construction, supervision and taking over of the works, shall be the entire responsibility and within the competence of the Portuguese authorities.

4.1.1.1 - The dam shall be built according to the plans, tender documents and proposals already presented to the South African authorities.

4.1.1.2 - The final tender documents and recommendation for award shall be presented to the South African authorities, who undertake to furnish their comments within thirty days after receipt of these documents.

4.1.2 - On account of the urgent need of Portugal to improve power production at Matala and to initiate irrigation and supply of water for human and animal requirements in the middle-Cunene, the Government of the Republic of South Africa agrees to the immediate construction of Gove dam.

4.1.3 - The Republic of South Africa shall participate in the financing of Gove dam in respect of components forming part of the storage regulation function, but specifically excluding costs incurred for intended hydro-power generation purely in the interest of the Portuguese Government. South Africa's financial obligation in terms hereof shall be limited to R 8, 125, 000 one half of which shall be a direct (non-reimbursable) grant, and the balance shall be in the form of a twenty years loan bearing interest at the rate of 5 per cent per annum on the outstanding balance, payable annually in arrear.

4.1.4 - Payments in respect of the Republic of South Africa's participation, in the financing of the components forming part of the storage regulation, shall be made in conformity with the requirements of the contract documents covering the execution of the work, and the amounts shall be placed at the disposal of a Portuguese authority specially set up by the Portuguese Government for that purpose.

4.1.5 - The Portuguese authorities shall grant access at all times to the sites and works to a South African observer specially appointed who shall keep the South African authorities informed on the progress of the works so that the interval between the request for payments made by the Portuguese authorities and the implementation by South Africa of such requests may be reduced to a minimum.

4.1.6 - With regard to payments to be made by South Africa in terms of article 4.1.4, 50 per cent shall be regarded as being in respect of South Africa's direct grant and 50 per cent in respect of the loan.

4.1.7 - Interest on the amounts advanced in terms of South Africa's loan shall commence to run from the date on which such amounts are paid over to the Portuguese authority referred to in article 4.1.4 above. Interest accruing prior to the commencement of redemption payments in terms of article 4.1.8 shall be capitalized.

4.1.8 - The loan shall be paid off by means of twenty equal annual instalments commencing at the end of the first year after the date on which the Portuguese authorities shall have taken provisional delivery of the dam from the contractor. The date of provisional delivery shall be the date on which the dam may for all practical purposes be regarded as completed. The date for payment of these instalments may, at the request of the Portuguese authorities, be adjusted to the end of the Portuguese financial year, following upon the end of the financial year in which the dam shall have been provisionally taken over.

4.1.9 - Notwithstanding South Africa's financial participation, ownership of the entire works shall vest in the Portuguese Government.

4.1.10 - The operation and maintenance of the works shall be the entire responsibility and within the full competence of the Portuguese authorities. All charges in connection herewith, shall be for the account of the Portuguese authorities.

4.1.11 - By virtue of South Africa's contribution towards cost of the Gove dam, in terms of article 4.1.3, Portugal agrees not to abstract more than 50 per cent of the resulting regulated flow of the river which, for the purpose of this Agreement, shall be taken as 80 m<sup>3</sup>/s at Ruacana, subject to adjustment when the agreed hydro logical analyses referred to in article 5.3 become available.

4.1.12 - Gove dam shall be operated so as to provide a regulated flow on a calculated basis within the hydrology of the Cunene River as close as possible to the regulated flow referred to in article 4.1.11 as may be compatible with the quantity of water stored in the dam. This operation procedure shall be reviewed by both parties as soon as a further regulating dam is to be constructed upstream of Calueque. For the purpose of this article, the Permanent Joint Technical Commission may be consulted regarding the technical procedures to be followed.

4.1.13- Portugal may utilize freely, for power production the full flow of the river upstream of the upstream limit of the Ruacana diversion weir basin.

#### 4.2 - Works at Calueque:

4.2.1 - On account of the humanitarian nature of the scheme, the Government of the Republic of Portugal agrees to the immediate construction and operation of the project for the diversion by means of pumping of water from the Cunene River for human and animal requirements in South West Africa and for initial irrigation in Ovamboland.

4.2.2 - The quality of water to be abstracted by means of the pumping scheme during any one week, shall be limited to one half of the natural flow of the river at the point of abstraction during that week, subject to a maximum pumping rate of 6 m<sup>3</sup>/s.

4.2.3 - An increase in the quantity of water to be abstracted shall be the subject of further negotiations between the two Governments when the regulation of the river justifies this, and in keeping with the mutually agreed best joint utilization of the river.

4.2.4 - The abstraction of water shall be effected by means of works detailed in documents already approved by the Portuguese Government.

4.2.5 - The pumping scheme shall be operated solely for the supply of water for human and animal requirements in South West Africa and initial irrigation in Ovamboland, under which conditions no charge shall be raised in respect of the maximum of 6 m<sup>3</sup>/s, referred to in article 4.2.2.

4.2.6 - Construction of the pumping scheme according to the plans already approved may precede any other project referred to in this Agreement, but the following general provisions shall apply to both the Calueque pumping scheme and the Calueque dam, where applicable.

4.2.6.1 - The preparation of the designs and plans for the projects shall be the entire responsibility and within the full competence of the South African authorities. The plans shall be submitted to the Portuguese authorities for consideration and approval.

4.2.6.2 - The South African authorities shall be responsible for the preparation of the tender documents.

4.2.6.3 - The tender documents, and the contracts awarded to tenderers, shall be subject to South African law insofar as the relationship between the South African authorities and the contractors is concerned, but Portuguese law, both civil or criminal, shall apply during the course of construction to the contractors themselves. All disputes relating to the execution of the works and respective contracts arising between the South African authorities and the contractors, shall, in the event of litigation, be resolved in the South African courts.

4.2.6.4 - The tender documents in respect of works to be constructed in Angola, shall be sent to the Portuguese authorities for approval and adaptation to Portuguese law.

4.2.6.5 - The documents referred to in article 4.2.6.4 shall, after approval, be returned to the South African authorities, who shall arrange for the advertisement inviting tenders on an international basis, in the names of the Portuguese and South African authorities, these tender documents shall be issued simultaneously in the Portuguese and English languages in Portugal, South Africa and South West Africa.

4.2.6.6 - Copies of all tenders received shall be submitted separately to the Portuguese authorities and to the South African authorities.

4.2.6.7 - The two authorities shall study the documents separately and South Africa shall submit her recommendations to the Portuguese authorities, who undertake to furnish their comments within thirty days, after receipt of these recommendations.

4.2.6.8 - The award of contracts shall be the sole responsibility of the Republic of South Africa, after consideration of the comments of the Portuguese authorities.

4.2.6.9 - The construction shall be the entire responsibility of the Republic of South Africa, who shall bear the entire cost thereof.

4.2.6.10 - The execution of the works shall be subject to inspection at all times by a Portuguese representative (s) specially appointed for this purpose by the Portuguese authorities.

4.2.6.11 - The final taking over of the works from the contractor shall be effected after advice from the Permanent Joint Technical Commission that the work have been completed in terms of the contract documents.

4.2.6.12 - It shall be the entire responsibility of the Republic of South Africa to provide indemnity in accordance with Portuguese law against claims arising during and due to the construction of the works.

4.2.7 - The Republic of South Africa shall have the right to ownership only over moveables incorporated in the works, including all machinery and other equipment which can be removed without destroying the immovable property. All the immovable property including spillway and outlet equipment of the Calueque dam shall remain Portuguese property.

4.2.8 - The operation of the works shall be the responsibility and within the competence of the Portuguese authorities, in accordance with the provisions of articles 4.2.8.1 to 4.2.8.8, inclusive. For this purpose a suitable entity shall be created, hereinafter referred to as "the Operating Authority" (Exploração).

4.2.8.1 - The director of the Operating Authority shall be appointed by the Portuguese Government.

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4.2.8.6 - The Republic of South Africa shall appoint a permanent representative, to be known as "the liaison officer" to whom the following provisions shall apply:

(i) The liaison officer shall be either of Portuguese or South African nationality and his appointment shall be subject to the Portuguese authorities' approval:

(ii) The liaison officer himself shall at all times have free access to all parts of the scheme. In order to enable him to carry out his duties, access shall also be granted to his agents and for equipment, vehicles and materials subject only to prior notice being given to the Operating Authority:

For determining the limits of the scheme for the purpose of access, the following boundaries shall apply:

(a) The surface of the reservoir and a working zone along the shoreline as well as reasonable access thereto by land.

(b) A fenced-off or otherwise demarcated area in which the dam and spillway structure, gauging section, diversion works, pumping station, rising main, canal to the border between Angola and South West Africa, access road (s) power and communication lines to the said border, housing, offices and other buildings are situated.

(iii) The liaison officer shall advise the Operating Authority in writing in a systematic manner, from time to time, and at least one week in advance of the anticipated water requirements to be drawn from the Calueque works;

(iv) The liaison officer shall inspect the works and shall be responsible for and take all necessary steps to effect maintenance, repairs, renewals and betterments with a view to the efficient and economic operation of the scheme. The Operating Authority shall be given previous notice of the intention to carry out such work, and in the event of the latter involving any modification to the scheme as planned and approved, the liaison officer shall obtain the Operating Authority's prior approval,

(v) The liaison officer shall be responsible for certifying accounts before payment is effected by the Operating Authority.

4.2.8.7 - The Operating Authority shall take meter reading and gaugings and shall keep records of river flow and of the water delivered.

4.2.8.8 - The actual cost of operating and of the duties performed in terms of article 4.2.8.6, (iv), shall be borne by the South African authorities. The Operating Authority shall indicate its personnel and ancillary requirements and prepare an annual budget of its expenses which shall be permitted for approval by the South African authorities after consideration by the liaison officer. The Operating Authority shall also submit quarterly statements of actual expenditure through the liaison officer.

4.2.9 - The spillway gates of the Calueque dam shall be so designed as to prevent the 1098 m level mentioned in article 3.2 being exceeded at the dam wall under normal flood conditions.

4.2.10 - After the signing of the contract for the construction of Calueque dam the Government of the Republic of South Africa shall pay the Government of Portugal an amount of R 220, 000 as compensation for the ground occupied by the works and for the flooding of approximately 18, 000 ha. of ground resulting from the construction of the dam to a full supply level of 1098 m.

The Portuguese Government undertakes that on receipt of the compensation, the South African authorities shall be entitled to commence construction operations without its progress being delayed as a result of not being able to obtain occupation as aforementioned.

4.3 - Ruacana hydro-electric power station and diversion works:

4.3.1 - The Ruacana power station and respective diversion works shall be entirely South African undertakings, subject - in respect of works on Portuguese territory - to the provisions of articles 4.2.6.1, 4.2.6.10, 4.2.6.12 and 4.2.7 of this Agreement.

4.3.2 - The South African authorities shall be entirely responsible for the construction, operation and maintenance of the works. All costs in connection therewith shall be borne by the South African authorities.

4.3.3 - For determining the limits of the scheme for the purpose of access to Portuguese territory for operation and maintenance, the following boundaries shall apply:

(a) The surface of the diversion reservoir and a working zone along the shoreline as well as reasonable access thereto by land;

(b) A fenced-off or otherwise demarcated area in which the diversion weir, the spillway and intake structures, the power canal and/or tunnels, the access road (s) and power and

communication lines leading to the border between Angola and South West Africa are situated.

4.3.4 - The South African authorities, shall for the production of power, have the exclusive use in perpetuity of the flow of the river regulated by the dams of the first phase, from the upstream limit of the Ruacana diversion weir basin to below the Ruacana power fall.

4.3.5 - The South African authority may use, free of charge, the ground on Portuguese territory at Ruacana to be occupied by and required for the construction of the diversion works and regulating basin.

Special provisions:

5.1 - The provisions of the Agreement of 13th October, 1964, referring to the construction of the power lines from Matala to the border between Angola and South West Africa and to the installation of a third turbo-generator at Matala, are revoked, provided that this shall not preclude future negotiations, should both parties be interested therein.

5.2 - The Republic of South Africa shall pay a royalty to Portugal in respect of power generated at Ruacana. The royalty rate and its application shall be in accordance with the conditions stated below:

5.2.1 - The royalty rate shall be based on a forecast of power generation at Ruacana estimated by the South African authorities, calculated to provide a total income over a period of twenty years equal to the sum of the twenty equal annual payments for redemption and interest to be made by Portugal in respect of the loan to Portugal for Gove dam.

This calculation shall be based on one half of the flow at Ruacana regulated by Gove, as if no abstraction of water shall have been made from this flow upstream of Ruacana by the Portuguese authorities.

The royalty rate shall be revised at intervals of five years and for purposes of this Agreement, the initial rate to be used for the first five years after the start of commercial operation of Ruacana power station shall be assumed to be 0.11 cents of a rand per kilowatt-hour generated.

5.2.2 - The royalty rate shall be applied to that part of the power generated at Ruacana which corresponds to the ratio between one half of the flow regulated by Gove dam and guaranteed at Ruacana, and the flow at Ruacana regulated by Gove and Calueque dams combined: this ratio shall be adjusted, from time to time, after allowance shall have been made for abstractions of water for consumptive use by both countries. For the purpose of this Agreement an initial ratio of 40 per cent shall be accepted. This ratio shall also be adjusted when agreement is reached on the results of the hydrological studies referred to in article 5.3.

5.2.3 - After the loan in respect of Gove shall have been fully redeemed, the royalty rate shall be fixed at 0.05 cents of a rand per kilowatt-hour generated at Ruacana, applying the ratio then applicable in terms of article 5.2.2.

5.3 - At the commencement of the operation of the works, and thereafter at such intervals as may be agreed upon, the Permanent Joint Technical Commission shall revise the hydrological studies carried out by both countries for the purpose set out in articles 4.1.11, 4.1.12 and 5.2.2 hereof.

5.4 - The Portuguese Government shall take the necessary steps to ensure the granting of exemption from the payment of customs duties and similar dues in respect of all goods intended for the construction, operation and maintenance of the works to be constructed in Portuguese territory at Ruacana and Calueque in pursuance of this Agreement.

5.5 - All personnel employed, directly or indirectly, on the construction operation and maintenance of the works in pursuance of this Agreement, shall be permitted to pass freely within predetermined limits from one country to the other in order to enter and leave the place where the works aforesaid are located without any immigration restrictions, passports or labour requirements. Each Government shall furnish convenient means of identification to the personnel employed-by it on the aforesaid works. The South African Government shall furnish such verification certificates to cover all goods imported into Angola and intended for the aforesaid works, as may be required by the Portuguese Government.

5.6 - The works to be constructed by South Africa in Portuguese territory in terms of this Agreement shall be considered, for the purpose of obtaining, removing and using in the construction of the works, any materials lying convenient to the works, as being works constructed in the Portuguese public interest.

Notification of the requirements of materials to be used in the construction of works shall be given at least three months in advance of such use.