

Construction of the water supply system in the Gulf of Morrosquillo

Sector	Public-private sector.																								
Entities/Areas	<p>NATIONAL ORDER</p> <ul style="list-style-type: none"> - Ministry of Housing, City and Territory, (MVCT): - Vice-Ministry of Water and Basic Sanitation: - National Planning Department, DNP: - ENTerritorio: - National Roads Institute, INVÍAS: - National Infrastructure Agency, ANI: - National Land Agency: <p>CONTROL BODIES</p> <ul style="list-style-type: none"> - Office of the Attorney General of the Nation, PGN: - Comptrollers: <p>TERRITORIAL LEVEL</p> <ul style="list-style-type: none"> - Regional Autonomous Corporations: - EMPRESA AGUAS DE SUCRE S.A E.S.P. (ADS): - Departmental Assembly: - Municipalities: - Municipal Councils: - Municipal Public Utility Companies: The companies that currently operate the municipal aqueducts of the Golfo de Morrosquillo pact are: <table border="1"> <caption>Table 209 Municipal providers</caption> <thead> <tr> <th>Municipality</th> <th>Name ESP</th> <th>Nature</th> <th>Contract term</th> </tr> </thead> <tbody> <tr> <td>Coveñas</td> <td>SERCOV SA ESP</td> <td>Mixed, 43% public, under contract</td> <td>2034</td> </tr> <tr> <td>San Antonio de Palmitos</td> <td>ACUAPAL SA ESP</td> <td>Officer</td> <td>n/a</td> </tr> <tr> <td>Toluviejo</td> <td>AAA de Toluviejo SA ESP</td> <td>Officer</td> <td>n/a</td> </tr> <tr> <td>Santiago de Tolú</td> <td>Aguas de Morrosquillo SA ESP</td> <td>Officer</td> <td>n/a</td> </tr> <tr> <td>San Onofre</td> <td>Triple A del Norte</td> <td>Private concession contract</td> <td>2043</td> </tr> </tbody> </table> <p>Source: Group II Islands Consortium</p> <ul style="list-style-type: none"> - Commission for Drinking Water regulation and Basic Sanitation - Comisión de Regulación de Agua Potable y Saneamiento Básico, CRA: - Directorate of Integral Water Resource Management: 	Municipality	Name ESP	Nature	Contract term	Coveñas	SERCOV SA ESP	Mixed, 43% public, under contract	2034	San Antonio de Palmitos	ACUAPAL SA ESP	Officer	n/a	Toluviejo	AAA de Toluviejo SA ESP	Officer	n/a	Santiago de Tolú	Aguas de Morrosquillo SA ESP	Officer	n/a	San Onofre	Triple A del Norte	Private concession contract	2043
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National Strategy form the National Development Plan to which it	<p>Regional Convergence</p> <ul style="list-style-type: none"> - Land planning around water and Environmental Justice 																								

aims.	
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Target SDGs	SDG 6: Clean water and sanitation.	
Description of the Project	Purpose of the project	With the implementation of the project, we aim to provide 100% water coverage to the municipalities of the Gulf of Morrosquillo, increasing continuity from an average of 14.3% (3.4 hours of service) to 100% (24 hours of service) and with a water quality with an IRCA index < 5% (suitable for human consumption).
	Objectives	<ul style="list-style-type: none"> - Guarantee the right for users of water and sewage services according to Colombian law. - To build a regional aqueduct for the "Golfo de Morrosquillo", with a pertinent organizational structure that obtains results aimed at expansion, profitability, and social responsibility. - Satisfy the needs and expectations of users through efficient and timely compliance with constitutional and legal norms. - Ensure that the investments made generate value, increase profitability, efficiency, and performance. - Consolidate a business sustainability model. - Generate social and environmental benefits for local communities. - Contribute to the consolidation of the "Golfo de Morrosquillo" as an important tourism and regional development actor.
	Geographic Area of Influence	It is established that the catchment source is the Sinú River, which starts in the municipality of Santa Cruz de Loric. It drifts towards the municipality of San Antero to reach the municipality of Coveñas. It continues through the municipality of Momil; this for the department of Córdoba (except Coveñas, which belongs to the department of Sucre). The route continues to the municipalities of Coveñas, San Antonio de Palmito, Santiago de Tolú, Tolú Viejo and finally to the municipality of San Onofre (municipalities of Sucre).
	It is included in the NDP goals:	Yes_x_No
	Goal: (km) , (panels, etc)	<ul style="list-style-type: none"> - Construction of a 100 l/s water intake. - Construction of an approach channel in the Sinu River, 1m wide and

		<p>15m long.</p> <ul style="list-style-type: none"> - Construction of 2 desander units of 498.74l/s with pumping station. - Pipeline construction: 70,000m of 700mm, 860m of 600mm, 40,483m of 450mm, 5493m of 400mm and 190m of 300mm. - Construction of 2 storage tanks of 2,930 m3 - Construction of the Toluviejo Drinking Water Treatment Plant for a flow rate of 38.38 l/s. - Construction of San Onofre Drinking Water Treatment Plant for a flow of 66.23 l/s.

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		- Installation of 7 macro meters	
	Located in a protected area or with indigenous/ Afro-descendant communities:	Yes ___ No <input checked="" type="checkbox"/> Which _____	
Duration by Phases		PHASE	DURATION
		Stage 1	18 months
		Stage 2	24 months
		Stage 3	24 months
		CONSTRUCTIONS TO BE EXECUTED	
		Intake (intake), Pumping station (pumps), Pumping house (civil works), Pumping house (equipment), Drive line (section 1), High tank Los Cerros, Drive line (section 2, 3.27km)	
		Pipeline (section 2, 58.50km), Tolviejo high tank (first phase), New Tolviejo WTP	
		Pipeline (section 3), Pipeline (section 4), Tolviejo high tank (second phase), New San Onofre WTP, Optimization of North Santiago de Tolú WTP, Optimization of South Santiago de Tolú WTP.	
Contributions	Total Value	\$447.932.011.985 COP	
	National Contribution	\$	
	Contribution from Territorial Entities	\$	
	Private Contribution	\$	
Opportunity to Investment	<p>Considering the high investments required for the construction of the supply system of each of the technical alternatives and considering that, when including them in the cash flows, no recovery values of these investments are obtained in any case, this project can be classified as loss-making and, therefore, its sustainability depends on public contributions to subsidize the construction. Thus, the sources analyzed for financing, i.e., for the loss-making contribution, correspond to the General System of Royalties SGR and the General System of Participations SGP. In the event that the three years of work were not executed in those years and were to be carried</p>		

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	<p>out one more year (2025 to 2027), the deficit would increase to \$165,132 million, When reviewing the current peso values of each year of the CAPEX and comparing them with the regional allocations in those same periods, we obtain shortfalls in each period totaling \$247,032 million.</p> <p>There are no values for unrestricted use and the potable water resources are mostly destined to the granting of subsidies in the department, so there were no sources of financing available for projects.</p>
<p>Analysis of Market</p>	<p>The sources analyzed for financing, that is, for the contribution to losses, correspond to the General System of Royalties SGR, the General System of Participations SGP or International Cooperation.</p>
<p>Projections Financial</p>	<ol style="list-style-type: none"> 1. Considering CAPEX: <ul style="list-style-type: none"> - The results show that there is no possibility of recovering the resources invested in the operation since it has a negative net present value and a negative internal rate of return. These results imply that the investment contributions should be made by the State on a sunk cost basis, considering that no specialized operator will have any incentive to take charge of the operation since it is loss-making if it contributes the value of the CAPEX. In accordance with these results, it is necessary that the construction should be contracted independently from the operation. 2. Financial evaluation considering CAPEX and without %R <ul style="list-style-type: none"> - In this scenario, the results reflect that there is no possibility of recovering the resources invested in the operation given that it has a negative net present value and a negative internal rate of return. Likewise, it is not considered a convenient scenario since the project would not generate resources for technical and institutional improvement projects for the beneficiaries. 3. Financial Evaluation without CAPEX <ul style="list-style-type: none"> - The results reflect sustainability in the operation and a rate of return of 20.64%, giving a discount (%R) of 15%, which represents an availability of resources of \$70,269 million over 25 years, with an annual average of \$3,194 million and a net present value equivalent to \$18,275 million. 4. Financial Evaluation with differential rate <ul style="list-style-type: none"> - This result shows positive results in all indicators, however, the impact of the purchase of untreated water by the municipalities is still not completely minimized. 5. Financial evaluation lowest possible tariff, lowest possible contribution and no %R <ul style="list-style-type: none"> - In this scenario the impacts on the municipalities are minimized to the maximum since the lowest possible tariff is charged and the operation is still sustainable. In this scenario the cost per cubic meter has been estimated in current pesos, which is \$272.03/m³ expressed in 2023 current pesos and projected in current pesos for each period. <p>The selection of the scenarios considered the different positions of the National Planning</p>

Department, Territory and the municipalities and, in accordance with the different meetings from which each of the scenarios were presented, the joint selection decided to recommend scenario No. 5.

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Considerations of Sustainability and ESG

The project is aligned with the Water and Basic Sanitation Regulations (RAS) in force, ensuring the limitation of water leaks and the implementation of adequate maintenance measures. The promise to comply with the coverage, continuity and quality of service will be carried out in a timely manner, positively impacting the environment. Likewise, from the social point of view, community participation will be promoted, and the most vulnerable population will be reached. The initiative will contribute to improving the population's quality of life by addressing unmet basic needs in terms of access to public services, particularly drinking water supply.

Evaluation and Mitigation of Risks

Construction contract:

Risk	Component	% allocation to contracting party	% allocation to contractor	Probability of occurrence
Low liquidity to pay suppliers	Financial	0%	100%	20%
Unforeseen archaeological findings that generate delays and cost overruns.	Social and operational	10%	90%	2%
Transfer of nets due to inaccuracy	Operating Technician	20%	80%	40%

Risk	Component	% allocation to contractor	% allocation to contractor	Probability of occurrence
Cadastre that generates delays and cost overruns				
Variations in exchange rates for purchase of supplies	Financial	0%	100%	40%
Management of public resources disbursements	Financial	10%	90%	35%
Floods	Technician	0%	100%	20%
Inadequate management of the advance payment	Financial	0%	100%	5%
Inflationary effects	Financial	0%	100%	15%
Failure to sign an audit contract	Legal and financial	100%	0%	5%
Higher labor costs due to labor reforms	Financial	0%	100%	25%
Increased labor costs due to tax reforms or other reforms that generate new unforeseen costs	Financial	0%	100%	25%
Delays in processing environmental permits	Legal	10%	90%	10%
Affected by climatic phenomena	Technician	10%	90%	20%
Occupational accidents	Technician	0%	100%	5%
Extortion by illegal groups	Social	30%	70%	5%

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Operation contract:

Risk	Component	% allocation to contractor	% allocation to contractor	Probability of occurrence
Bidder offers very high %R	Financial	0%	100%	20%
Beneficiaries do not have the liquidity to pay utility bills	Financial and commercial	0%	100%	20-50% depending on %R value
Affected by climatic phenomena	Technician	0%	100%	20%
Corrective maintenance of equipment	Technician	100%	0%	10%
Demonstrations and community blockades impeding operations	Social	0%	100%	10%

Risk	Component	% allocation to contractor	% allocation to contractor	Probability of occurrence
Breakage of structures	Technician	0%	100%	10%
Power failures	Technician	0%	100%	15%
Contamination of water sources by a third party	Environmental	50%	50%	5%
Extortion by illegal groups	Social	30%	70%	5%
Low quality of inputs	Technician	0%	100%	10%

Project Team and Experience

1. Project Manager
2. Legal Specialist in Structuring
3. Hydraulic aqueduct specialist
4. Expert in Drinking water treatment plant evaluation and design
5. Financial structuring specialist
6. Hydrology specialist
7. Institutional Specialist
8. Tariff specialist
9. Social professional
10. Property Lawyer
11. Cadastral Engineer
12. Environmental Engineer
13. Structural Specialist
14. Geotechnical specialist
15. Electromechanical specialist
16. Costing and budgeting professional
17. Design Engineer (3 people)
18. Draughtsman (2 persons)
19. Drawing assistant

Information Additional

- The forest inventory was 100% completed for a length equivalent to 40 km. A total of 1,529 trees were inventoried, of which 141 will be felled and 1,388 will undergo integrated treatment focused on root pruning and stabilization.
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Source: Consorcio Islas Grupo II

Within this list are linked the areas where there are currently structures that are part of the area proposed for the operation of the project. Below is a table showing the number of areas required and the type of negotiation required for the development of these constructions:

Table 20 Quantities of area and negotiation approach

GENERAL INFORMATION				AREAS REQUIRED m2		
Property ID	Dept	Municipality	Address	BUY	SERVIDUM	POSSESSION MPIO
1	Córdoba	Lorica	San Miguel	41.883,26	464,51	Not applicable
2	Córdoba	Lorica	St. Agnes	8.798,62	0,00	Not applicable
3	Sucre	Tolú Viejo	Zaragoza	8.798,62	1099,26	Not applicable
7	Sucre	Tolu	Solar	Not applicable	Not applicable	1.629,05
8	Sucre	Tolu	3 20 6th Street	Not applicable	Not applicable	956,69
9	Sucre	San Onofre	The Treasury	Not applicable	Not applicable	10.252,06
10	Córdoba	Lorica	San Miguel Plot 10	Not applicable	867,41	Not applicable
11	Córdoba	San Antero	Plot 8	Not applicable	2.489,08	Not applicable
12	Córdoba	San Antero	Plot 11	Not applicable	42,09	Not applicable
13	Córdoba	San Antero	Las Delicias Plot 12	Not applicable	1.640,26	Not applicable
14	Córdoba	San Antero	Petroski Farm	Not applicable	2.057,44	Not applicable
15	Córdoba	San Antero	Plot 20	Not applicable	1.281,39	Not applicable
16	Córdoba	Lorica	Pumping Station	Not applicable	2,36	Not applicable

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Source: Group II Islands Consortium

It is important to note that as can be seen in the table above, for the implementation of the project, the partial purchase of three (3) plots of land, the constitution of nine (9) easements and the issuance of the administrative act of healthy possession of three (3) properties are required, as well as the constitution of nine (9) easements and the issuance of the administrative act of healthy possession of three (3) properties.

(3) properties. In the same way, the official procedures were carried out for the requests for network crossings over the national and municipal roads before the ANI and INVIAS.



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**Comercio, Industria
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