

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

**SURINAME**

**WATER SUPPLY MASTER PLAN FOR SURINAME**

**(SU-T1045)**

**PLAN OF OPERATIONS**

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### **Abbreviations**

CDF	Community Development Fund
CDFS	Community Development Fund Suriname
ESG	Environment and Social Risk Mitigation Unit
FSO	Fund of Special Operation
GOSU	Government of Suriname
IDB	Inter American Development Bank
MDG	Millennium Development Goals
MPW	Ministry of Public Works
NH/DWV	Department for Water Supply of the Ministry of Natural Resources
NRW	Non Revenue Water
O&M	Operations and Maintenance
PAHO	Pan-American Health Organization
QBCS	Quality- and Cost-Based Selection
SFDA	Special Fund for Dutch Aid
SWM	N.V. Surinaamsche Waterleiding Maatschapij
TC	Technical Cooperation
UNICEF	United Nations Children Fund

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**EXECUTIVE SUMMARY**

<b>Beneficiary Country:</b>	Suriname
<b>Team Leader / Members</b>	Javier Grau (WSA/CGY), Team Leader; team members Yvon Mellinger (INE/WSA); Lu Shen (INE/WSA); Roy Parahoo (PDP/CGY); Nancy del Prado (CSU); Carol Lieveld (CSU); and Diego Sebastian Buchara (LEG/SGO)
<b>Executing Agency:</b>	N.V. Surinaamsche Waterleiding Maatschapij (SWM)
<b>Target Beneficiaries:</b>	The two water utilities in Suriname, SWM and NH/DWV, will benefit from the Program by being provided with better tools for planning and prioritization of investments, which will in turn provide both the urban and rural communities of Suriname with a better quality of water supply service.
<b>Financing Plan:</b>	IDB – Net Income of the Fund for Special Operations (FSO): 500,000 Local: 25,000 Total: 525,000
<b>Objective:</b>	The objective of the Technical Cooperation (the Program) is to contribute to the improvement in the provision of potable water of acceptable quality and quantity to the population of Suriname.
<b>Execution Timetable:</b>	Execution period: 13 months Disbursement period: 16 months
<b>Special Contractual Conditions:</b>	None
<b>Exceptions to Bank Policies and Procedures:</b>	None
<b>Environmental and Social Review:</b>	The Program is not anticipated to have negative direct environmental or social impacts and has been classified as a ‘C’ according to the Safeguard Classification Tool. However, recommendations from ESG have been included in the Plan of Operations (paragraphs 3.6, 6.2, 7.4 and Section VIII).
<b>Coordination with Other Donors:</b>	Specific attention will be given to coordination with the Special Fund for Dutch Aid (SFDA) and the Pan-American Health Organization (PAHO), agencies which have been active in financing projects in support of the development of the water supply sector in Suriname.

## **I. BACKGROUND AND JUSTIFICATION**

### **A. The Structure of the Water Sector in Suriname**

- 1.1 With an area of 163,800 km<sup>2</sup>, the physical geography of Suriname is divided into three areas: the Coastal Plain, the Savannah Belt, and the Interior Precambrian Shield (the Interior). Most of Suriname's 500,000 inhabitants live within the 30-kilometer wide Coastal Plain. Paramaribo, Suriname's capital, has a population of just about 200,000, and lies about 20 kilometers south of the coast at the west bank of the Suriname River. It is estimated that 70% of the population of the country live in Greater Paramaribo, which includes Paramaribo and Wanica<sup>1</sup>. The Savannah Belt is sparsely populated while the Interior, which makes up 80% to 85% of the total area, consists of hills, mountains, and tropical rainforests inhabited mainly by dispersed tribal people<sup>2</sup>.
- 1.2 Suriname has two rainy and two dry seasons, the long rainy and dry seasons being April to July and August to November, respectively. This climate makes the country prone to both floods and droughts. The Government of Suriname (GOSU) has designated responsibilities to two entities for water supply. Potable water supply to the densely settled urban areas in Greater Paramaribo is provided by SWM, a government-owned utility that supplies water to approximately 70% of Suriname's population. The Department for Water Supply under the Ministry of Natural Resources (NH/DWV) is responsible for water supply in the rural areas, covering approximately 50 villages, accounting for approximately 21% of the population of the country. The Ministry of Natural Resources is also responsible for the policy direction of SWM.
- 1.3 Other agencies with responsibilities in the water sector include: i) the Ministry of Health in charge of monitoring environmental health; ii) the Ministry of Agriculture in charge of irrigation; iii) the Ministry of Public Works (MPW) in charge of drainage and wastewater; and iii) the Ministry of the Regional Development in charge for drainage in secondary and tertiary systems.
- 1.4 SWM began operations in 1933 with a 50-year concession to supply potable water to Paramaribo. This concession lapsed in 1982, but SWM still maintains a monopoly position under a quasi contractual arrangement with the GOSU. SWM provides water supply services to 75,387 customers. SWM has approximately 450 staff, with a ratio of just under 7 employees per 1,000 connections. Its production and distribution capacity has been estimated at 86,000 m<sup>3</sup> per day predominantly abstracted from wells scattered over the three confined aquifers: the Zanderij, the Coesewijne, and the A-sand aquifer. Although the main population centers served by SWM reside on or near the banks of the rivers, these rivers are by and large tidal and therefore offer few opportunities for the development of affordable water supply systems.
- 1.5 SWM's last tariff increase was in 2004. The increase allowed SWM to achieve a net operating surplus, fulfilling the financial condition set by the Special Fund for Dutch

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<sup>1</sup> Water Supply and Sanitation Sector Diagnostic- Klas Ringskog, 2005

<sup>2</sup> Water Resources Assessment Of Suriname – US Army Corps of Engineers, 2001

Aid (SFDA). However, the operating surplus has eroded as a result of insufficient tariff adjustments, and SWM has sustained operating deficits for the last two years.

- 1.6 NH/DWV is responsible for the operation of river intakes and infiltration galleries in approximately 50 villages scattered throughout the rural areas and the Interior. These water systems have been developed over the years through *ad hoc* arrangements with other GOSU agencies such as the Community Development Fund of Suriname (CDFS), a semi-autonomous foundation set up under the Community Development Fund project (CDF) financed by the IDB; and other donor agencies such as PAHO, SFDA as well as NGOs. NH/DWV attempts to manage these systems through an arrangement of community participation and support from its maintenance division. Even though users of NH/DWV systems are subject to the same tariffs charged by SWM, revenue collection is not systematized. Further, NH/DWV only has a staff of 5 employees assigned intermittently to manage its village systems. Presently, there is an ongoing program of hand over of water supply systems under the control of NH/DWV to SWM.

## **B. Recent Developments in the Water Sector**

- 1.7 The 1998 Strategic Plan of Suriname “*1998 National Strategy towards 2015*” outlined the Strategic Plan for Village Water Supply and was intended to inform the development of water supply to rural communities. In 2002, a Coastal Master Plan was prepared for the development of Suriname’s coastal areas covering the period 2003 to 2010. The 2002 Master Plan had estimated a total investment need of approximately €65 million for an estimated period of 8 years. To date, very little has been done towards implementing the 1998 Strategic Plan for Village Water Supply; and only some elements of the 2002 Coastal Master Plan have been implemented.
- 1.8 The SFDA has provided €16 million for Suriname to finance some of the projects outlined in the 2002 Coastal Master Plan, for which SWM has been acting as the Implementing Agency. Projects undertaken include: (i) a well drilling program (completed); (ii) the expansion of water production facilities (75% complete); and (iii) selected rehabilitation and expansion works to reduce water losses and expansion of the distribution network (95% complete). However, the assistance provided by the SFDA was insufficient to undertake all the investments identified in the 2002 Coastal Master Plan, which is now targeted for update by the GOSU.
- 1.9 The major assistance by the IDB in the water sector came through the CDF, under which 18 small water projects for communities in the Interior and the Coastal Areas were implemented and are close to completion. A recent evaluation of these projects indicates difficulties in having these systems fully operational due to deficiencies in design, construction and maintenance. On commissioning, the facilities were handed over to NH/DWV. The CDF concept was that the facilities would be operated by the communities, with major maintenance undertaken by NH/DWV. While the communities by and large carried out the necessary operation and routine maintenance activities, major maintenance activities such as the replacement of pumps were beyond the capacity of NH/DWV because of shortages of funding and human resources.

- 1.10 As for the interior of Suriname, limited participation from the communities and the sustainability of the investments in terms of technical capability and adequate Operation and Maintenance (O&M) remain key areas to be addressed to improve water supply.

### **C. Sector Challenges**

- 1.11 Suriname has subscribed to the targets under the Millennium Development Goals (MDGs). Relevant to potable water is indicator 7.8 “Proportion of population using an improved drinking water source”. According to 2006 data, Suriname achieved the MDG goal of 85% of the population with access to an improved drinking water source in urban areas, where 97% of the population meets the goal. However, the goal in rural areas is not met. In 2006, only 79% of the population had access to an improved drinking water source. Additionally, the unreliability of water supply in both urban and rural areas makes the satisfactory achievement of these goals difficult to meet.
- 1.12 Current manifestations of the difficulties in providing an appropriate supply of potable water include: (i) *low system coverage* - only 70% of the population has adequate access to water through house connections, with the poorest access being in rural communities; (ii) *uncertainty with respect to the safe yield of aquifers and the quality of raw water from rivers* - neither the boundaries of the aquifers used by wells serving Paramaribo nor the major watersheds of rivers have been mapped; (iii) *unreliable quality of water distributed* – some of the water produced is not disinfected; the absence of a comprehensive water quality monitoring program does not allow to address this problem appropriately; (iv) *inadequate maintenance of the infrastructure* - the challenges in maintaining the distribution infrastructure is evidenced by the level of non-revenue water, presently estimated at over 40%, officials at SWM and NH/DWV have cited the shortfall in funding as the main reason for a declining maintenance effort from the two agencies (v) *inadequate financial performance of the sector* - SWM has not had a tariff increase since 2004. Currently, the organization operates in a deficit. In the case of systems operated by NH/DWV no revenue is collected.
- 1.13 The lessons learned from the implementation of water supply projects in Suriname are the following: (i) there must be closer coordination by all agencies involved in the development of the water sector in Suriname; and (ii) in order to ensure long-term sustainability, maintenance of water supply infrastructure should be planned and not left to ad-hoc arrangements for financing and the allocation of human resources. On the institutional side, no single agency has been given the responsibility for managing the water supply sector. Instead, the current situation is characterized by the assignment of responsibilities in the water sector to a number of agencies, which prevents the sector from having a common strategy. This situation is starting to change with the takeover of NH/DWV facilities by SWM, the institution where most of the knowledge in the water sector resides.

### **D. Rationale for the Proposed Operation**

- 1.14 The GOSU has requested assistance from the IDB to support the preparation of a Water Sector Master Plan for the entire country. The Program will assess the current situation



of the water sector, paying special attention to: (i) current and projected demand for potable water, (ii) assessment of current infrastructure and future needs which will lead to the preparation of investment plans to meet shortfalls.

- 1.15 The Program will also seek to address the deficiencies in the institutional arrangement of the sector by proposing measures for rationalization, coordination and integration of the relevant agencies.
- 1.16 The Program is consistent with the IDB's Country Strategy for Suriname in the area of Public Sector Modernization and Public Services Provision. Because of intensive government involvement in the provision of public services, there is no separation between sector policy development, sector regulation, and the provision of services. To increase economic efficiency in capital investments and in the O&M of water supply systems, the GOSU seeks to reform the water sector and separate the aspects of policy, regulation, and provision of services. The Program will advance this reform through the development of water sector master plan and institutional strengthening for the water sector.

## **II. PROGRAM DESCRIPTION**

### **A. Objective**

- 2.1 The objective of the Program is to contribute to the improvement in the provision of potable water of acceptable quality and quantity to the population of Suriname. The purpose of the operation is to provide the technical and institutional framework for the development of an improved and sustainable supply of potable water to urban and rural communities in Suriname through: (i) the development of a Water Supply Master Plan for the entire country; and (ii) the preparation for the update of the regulatory and institutional framework for the water sector.

### **B. Components**

#### **1. Component 1: Water Supply Master Plan**

- 2.2 This component will review and update the 2002 Water Supply Master Plan for the coastal areas, reviewing the rehabilitation needs in existing urban and rural areas and the financial requirements for the development of new production and distribution facilities. The Water Supply Master Plan will identify the rehabilitation and expansion investments required in Greater Paramaribo and the coastal areas and will provide a timetable for these investments. As a result of this TC, a detailed fifteen-year investment plan will be produced.
- 2.3 This component will also include the development of a Water Supply Master Plan for the Interior. This Plan will i) conduct: an assessment of water supply in the interior, ii) identify the communities in need of improvements in the supply of potable water, and iii) recommend the most suitable technical options for improved potable water supply.

- 2.4 In the urban areas operated by SWM, the following tasks will be performed: (i) an assessment of the current water demand and of the production and distribution systems and facilities; (ii) a review of the population distribution and forecast of population growth with an emphasis on the impact of new housing developments on current supplies; (iii) a projection of future demand for water. The outcome of this study will be the preparation of a capital investment program for water production and distribution infrastructure for Greater Paramaribo and the coastal areas for the next 15 years.
- 2.5 For the areas under the control of NH/DWV, a review of the current status of the infrastructure will be done for the coastal areas as well as for the villages located in the interior. This will lead to an estimate of capital improvements needed in the water production and distribution networks. A set of criteria will be established to prioritize communities in need of urgent investments. These criteria will include consideration for potential sources of water, technical options for potable water supply, their capital and operational costs, as well as the ability of communities to pay for water services. A key element will be the assessment of appropriate water supply technologies, particularly in terms of maintenance requirements and the O&M costs.
- 2.6 This component will also include the mapping of water production facilities and distribution networks and the mapping of hydrological and hydrogeological information. These maps will detail the boundaries of those watersheds used as water supply sources for Greater Paramaribo, the coastal areas and the interior. Additionally, digitized maps of the distribution networks operated by SWM will be prepared. For those systems under the control of NH/DWV, maps locating the sources of water and communities will be developed.
- 2.7 A consulting firm will be hired to implement all the activities under this component. The consulting firm will include an engineer, a hydrologist, a hydro-geologist, a GIS specialist and a water quality specialist.

## **2. Component 2: Institutional Development Strategy and Legislative and Regulatory Framework for Water Supply**

- 2.8 The second component of the Program will address issues related to the institutional development for the sector and the legislative and regulatory framework within which the sector operates. This will comprise: (i) a tariff policy for water; (ii) Business Plans for SWM and NH/DWV including proposals for a systematic takeover of NH/DWV facilities by SWM; (iii) formation of a regulatory body for the sector; and (iv) the design of a water quality monitoring program.
- 2.9 The tariff policy study will review the procedures for approving tariffs levied by SWM and NH/DWV and will include (i) a proposal for the establishment of a new regulatory body to adjudicate on tariff adjustments; (ii) recommendations for improving billing and collection efficiency; and (iii) proposals for the adjustment of the existing tariff aimed at ensuring the financial sustainability of water supply services while protecting low-income customers.

- 2.10 The Business Plans will help SWM and NH/DWV develop strategies and performance targets in order to properly carry out their respective functions. This activity will: (i) review the mission of each organization; establish strategic objectives and actions and timelines needed for the achievement of the strategic objectives; (ii) establish performance targets including operational indicators such as coverage, continuity of service, NRW, and response time to breakdown reports as well as financial indicators such as collection efficiency, coverage of O&M costs, or net income; (iii) develop systems for measuring consumer satisfaction and consumer communication and confidence reporting; and (iv) develop water service standards including water quality, water pressure, best practices for pipeline installation and the control of operating and maintenance expenditures, standards to be monitored by the new regulatory body.
- 2.11 This component will also assess staffing levels and remuneration in the two agencies, investment criteria and schedule for updating Master Plans, financing policies, and reporting policies and auditing procedures. In addition, proposals for updating the draft concession agreement for SWM as well as proposals for a systematic takeover of NH/DWV facilities by SWM will be reviewed.
- 2.12 In assessing draft legislation for the creation of an independent regulator, the Program will examine the norms and standards of quality of service, procedures for assigning licenses to qualified operators to provide the service, and specify the level and structure of the tariff that each licensed operator would be required to charge. In addition, a review will be conducted on the existing draft legislations for groundwater protection, supervision of water utilities and drilling. Amendments will be proposed if needed.
- 2.13 The design of a water quality protection program will include: (i) recommendations for the adoption of raw and treated water quality standards; (ii) a source water protection plan; (iii) a system for monitoring water quality including recommendations for strengthening the physical amenities, equipment and human resources at SWM and the Ministry of Health laboratories; and (iv) a system for sanitary surveys to identify deficiencies which might impact water quality or service and procedures for reporting any contamination events, monitoring failures, or water treatment deficiencies to the regulatory body to be established and the public.
- 2.14 The same consulting firm for Component 1 will implement Component 2. For this component, the staff will include an economist, a financial specialist, a lawyer, an institutional specialist and the water quality specialist mentioned for Component 1.

### **III. COST AND FINANCING**

- 3.1 The total cost of the Program is US\$525,000. An amount of US\$500,000 will be financed by the Bank on a non-reimbursable basis with the Net Income of the Fund for Special Operations (FSO). Local contribution of US\$25,000 will be in kind. The table below presents a summarized budget table.

Budget (US\$) <sup>3</sup>			
Category	Bank (FSO)	Local	Total
<b>I. Water Supply Master Plan</b>	<b>305,000</b>	<b>5,000</b>	<b>310,000</b>
i) Sector Diagnostic	190,000		190,000
ii) Investment Plans	75,000		75,000
iii) Travel, per diem, office support	40,000	5,000	45,000
<b>II. Inst. Development Strategy and Legislative &amp; Regulatory Framework</b>	<b>155,000</b>	<b>5,000</b>	<b>160,000</b>
i) Institutional & Regulatory assessments	30,000		30,000
ii) Tariff Policy and Regulatory Body	60,000		60,000
iii) Business Plans & Water Qual. Program	30,000		30,000
iv) Travel, per diem, office support	35,000	5,000	40,000
<b>Stakeholder Participation Plan <sup>4</sup></b>	<b>20,000</b>	<b>5,000</b>	<b>25,000</b>
<b>Administration Support</b>	<b>10,000</b>	<b>5,000</b>	<b>15,000</b>
<b>Steering Committee</b>		<b>5,000</b>	<b>5,000</b>
<b>Mid Term and Final Evaluation &amp; Audit</b>	<b>10,000</b>		<b>10,000</b>
<b>TOTAL</b>	<b>500,000</b>	<b>25,000</b>	<b>525,000</b>

- 3.2 **Sustainability.** The 1998 Strategic Plan and the 2002 Coastal Master Plan had limited success in terms of securing funding for the priority investments. An updated Master Plan for the entire country would facilitate the appropriate commitment of funds by the GOSU and foreign agencies such as the IDB and the SFDA. On the institutional side, SWM and NH/DWV will benefit from an updated investment plan, from updated legislation aimed at protecting water sources, and from increased financial resources that would be garnered for new investments and from a potential tariff increase. The establishment of a new regulatory body for the water sector would assist in achieving a proper monitoring of the quality of the services provided to the citizens of Suriname and therefore for a proper assessment of tariff increases. Finally, the development of methodologies for proper maintenance of water production facilities and distribution networks, combined with the updated mapping of water infrastructure will allow the water operators to conduct more efficient leak detection and repair programs and reduce the levels of NRW.

#### IV. EXECUTING AGENCY AND MECHANISM

##### A. Executing Agency and Executing Mechanisms

- 4.1 SWM will be the executing agency for the Program. Since its creation in 1930, SWM has been the main water supplier in Suriname, supplying water to over 70% of the population of the country. SWM is the main agency in Suriname where expertise in water supply

<sup>3</sup> A detailed budget is presented in Annex III

<sup>4</sup> This activity includes the preparation and implementation of at least ten stakeholder meetings in all administrative districts in Suriname, which includes both Paramaribo and the coastal areas as well as the interior of the country. This activity also includes a presentation of the final products to GOSU authorities and key stakeholders in Paramaribo (see paragraph 4.32 of Annex IV).

resides and is therefore best suited to be the executing agency for the operation. In addition to this, the GOSU has initiated a process by which water supply facilities operated by NH/DWV are being transferred to SWM. Given that SWM is gradually increasing its customer base, choosing it as Executing Agency is the most appropriate decision for the execution of the project.

- 4.2 The Program will be executed under the policy guidance of a Steering Committee comprising the Permanent Secretary of the Ministry of Natural Resources as Chairman with four other members drawn from SWM, Ministry of Finance, the Head of the Hydraulic Research Division of the MPW and the Ministry of Regional Development.

#### **B. Program implementation readiness**

- 4.3 Annex IV includes the Terms of Reference (TORs) for the implementation of the two components of the Program. Given that both components in this TC will be implemented by the same consulting firm, the Program will only require two procurement processes, one for the hiring of the consulting firm to implement the Program and a second one to hire an individual consultant to carry out the evaluation of the Program.

#### **C. Execution period and disbursement schedule**

- 4.4 The execution period of this operation will be 13 months. The disbursement period will be 16 months. Both periods (execution and disbursement) will initiate with the signature of the agreement between the GOSU and the Bank. This TC does not require opening a revolving fund as all disbursements to the consultants will be made through direct payment from CCB/CSU upon receipt of disbursement request from the GOSU.

#### **D. Procurement**

- 4.5 Procurement will be carried out by the Executing Agency, SWM, in accordance with the “Policies for the Selection and Contracting of Consultants financed by the Bank” (GN-2350-7) of July 2006. The project will include two procurement processes; the first being the selection and contracting of a consulting firm or association of firms to carry out the entire work required for the present TC, as stipulated in the TORs. The specific procurement method will be Quality- and Cost-Based Selection (QCBS) through an initial call for Expressions of Interest. The second procurement process will be the hiring of an individual consultant to carry out the mid-term and final evaluation of the Program.

### **V. MONITORING AND EVALUATION**

#### **A. Monitoring and reports**

- 5.1 The monitoring of the two components of the Program will be done through the review and technical approval by both the Executing Agency and the Bank of the progress reports prepared by the consultants, in accordance with the Logical Framework included in Annex II of this Plan of Operations.

- 5.2 Additionally, monitoring of the Program will be complemented by the Steering Committee to be created for this operation. The Steering Committee will hold by-monthly meetings. SWM will chair monthly progress meetings with the Consultants and will prepare monthly progress reports for review by the Steering Committee and the Bank. Public consultation with the public will also be ensured through the implementation of a Stakeholder Participation Plan.

**B. Technical and basic responsibility**

- 5.3 The Bank's Water and Sanitation Division (INE/WSA) will have Technical basic responsibility while disbursements will be the responsibility Suriname Country Office. Contact point will be Javier Grau Benaiges (email: javiergr@iadb.org, Tel: 592-225-7950) and Nancy del Prado (email: nancyd@iadb.org, Tel: 597- 46-2903).

**C. Progress and final reports**

- 5.4 The Executing Agency will submit by-monthly reports to the Bank, which will include the minutes from the Steering Committee meetings and a description of the status of the operation. The Executing Agency will submit to the Bank the progress and final reports from the consulting firm in accordance with the schedule for submission of deliverables included in the TORs for the consultancy. The operation will also include a mid-term evaluation to be carried out once 50% of the Bank's resources have been spent and a final evaluation once 90% of the Bank's resources have been spent. This evaluation is to be financed with Bank's resources. An audited financial report is to be submitted at the end of Project execution in accordance to Bank policies and procedures.

**VI. PROGRAM BENEFITS AND RISKS**

**A. Program benefits, beneficiaries, and developmental impact**

- 6.1 By providing the technical and institutional framework within which the development of the water supply sector should take place, the Program will produce the development impact of a well structured water sector providing quality and sustainable water supply services to both urban and rural communities throughout Suriname. The development impact of this TC is to support the GOSU in achieving the MDGs for access to an improved source of water in Suriname.
- 6.2 The targeted institutional beneficiaries of the Program will be SWM and NH/DWV. In the medium term, the beneficiaries will be the customers of both water operators through targeted investments aimed at improving and expanding the operation of the distribution networks and production facilities for potable water. Additionally, this Program will allow the GOSU to prioritize investments in the water sector and approach potential funding partners to assist in addressing possible funding gaps.

**B. Risks**

- 6.3 The water sector in Suriname is organized along the lines of separation of institutions with responsibility for water supply and wastewater collection and disposal. SWM, in

charge of water supply in urban areas is organized along the lines of most water utilities in the Caribbean. On the other hand, the MPW, in charge of wastewater collection operates what could be described as a rudimentary wastewater sector lagging far behind the water sector in terms of institutional and infrastructural development. There is a risk that this Program would further widen the gap between the water supply and wastewater subsectors. To mitigate this risk, the Bank has recently set aside funds under its Water and Sanitation Initiative to assist the GOSU in conducting an initial assessment of the wastewater sector. Additionally, coordination between the MPW, SWM and NH/DWV will be achieved through the participation of all these agencies in the Steering Committee to be established for this Program.

- 6.4 An inadequate supervision of the consultants could result in the Program not achieving its objectives. This risk is mitigated by the establishment of a Steering Committee which will not only ensure that proper coordination among all agencies involved in water supply takes place, but will also contribute to the proper monitoring of the consultant's activities. In addition to this, and as specified in the TORs attached in Annex IV, the selected consulting firm will be required to design and implement a Stakeholder Participation Plan to ensure that proper public participation is included in the implementation of the two components of the Program.

## **VII. ENVIRONMENTAL AND SOCIAL STRATEGY**

- 7.1 The Program is not anticipated to have negative direct environmental or social impacts and has been classified as a "C" according to the Safeguard Classification Tool. This operation is expected to have positive social and environmental impacts. Improving the quantity and quality of potable water will contribute to the health and well being of Suriname's population and will assist in the achievement of the MDGs for water. Additionally, the intended reform of the water sector through more appropriate policy and legislation will help achieve the goal of social equity in water sector.
- 7.2 While classifying the operation as "C", the Environment and Social Risk Mitigation Unit (ESG) recommended the project team that water production and conservation measures and stakeholder participation be strengthened.
- 7.3 The program includes an assessment of both water availability and quality for both surface and ground water sources to ensure the long-term development of a sustainable water supply system for the country. Specifically, the program will map the watersheds used for water supply in both the coastal areas and the interior with information on water availability and quality. The inclusion of a GIS specialist will assist in ensuring that these activities are successfully implemented. The mapping and assessment of water availability and quality will allow an assessment of the level of stress in the watersheds used for water supply and will allow for recommendations for the establishment of conservation sites and measures in recognition of changing rainfall patterns.
- 7.4 Additionally, the TORs include a specific component for the design and implementation of a 'Stakeholder Participation Plan' to be implemented in all districts in Suriname with

the goal of ensuring that proper public communication and consultation is established and appropriate feedback from the local communities is obtained.

#### VIII. CERTIFICATION

- 8.1 The Grants and Cofinancing Management Unit (VPC/CGM) certifies that the amount of US\$500,000 from the Fund for Special Operations (FSO) are available for the financing of the proposed program budget of the current Plan of Operations.

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Marguerite S. Berger, Chief  
VPC/GCM

Dec 5, 2008

Date

#### IX. APPROVAL

Approved:

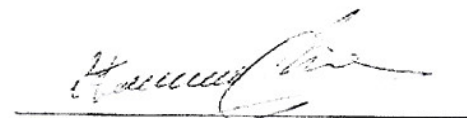


Ancile E. Brewster  
Country Representative  
CCB/CSU

Dec 08, 2008

Date

Vo.Bo.



C. Federico Basaños  
Chief  
Water and Sanitation Division  
INE/WSA

05, Dec 08

Date



**SURINAME**  
**WATER SUPPLY MASTER PLAN FOR SURINAME**  
**(SU-T1045)**

**LOGICAL FRAMEWORK**

Objective	Indicators	Means of verification	Assumptions
<b>Goal</b>			
To contribute to the improvement in the provision of potable water of acceptable quality and quantity to the population of Suriname.	By 2015 Suriname meets Millennium Development Goal 7.8 “Proportion of population using an improved drinking water source” by exceeding 90% in both rural and urban areas.	Official Statistics of the Government of Suriname and United Nations	
<b>Purpose</b>			
To provide the technical and institutional framework for the development of an improved and sustainable supply of potable water to urban and rural communities of Suriname	<ul style="list-style-type: none"> <li>By July 2010, two Investment Plans for improvements in potable water in urban areas and the interior for the period 2010-2024 completed and approved by the GOSU.</li> <li>By July 2010, proposal to set up a new regulatory body for the water sector submitted to the GOSU for consideration.</li> <li>By January 2010, a new Water Tariff Policy developed and submitted for GOSU’s consideration</li> </ul>	<p>National budget for water sector for years 2010-2011.</p> <p>Reports from Suriname’s Environmental Agency (NIMOS)</p> <p>Reports from SWM and NH</p>	<p>Elections in 2010 do not change priorities in water sector</p> <p>Different agencies within GOSU accept changes in the institutional and regulatory framework of the sector</p>
<b>Outputs</b>			
<p>Investment Plans for Water Supply improvements in Suriname</p> <p>Proposal for establishment of regulatory body for water sector</p> <p>Business Plans for water utilities</p> <p>Water Tariff Policy</p> <p>Water Quality Monitoring Programs</p>	<ul style="list-style-type: none"> <li>By July 2010, two Investment Plans prepared for Suriname’s coastal areas and the interior.</li> <li>By December 2009, 4 sets of digital maps prepared for existing infrastructure for water supply in Coastal Areas and the interior and for watersheds in the coastal areas and in the interior.</li> <li>By July 2010, one proposal for a new regulatory body prepared and submitted for GOSU’s consideration</li> <li>By July 2010, two Business Plans prepared one for SWM and one for NH/DWV</li> <li>By July 2010, one Water Quality Monitoring Program designed for Greater Paramaribo, coastal areas and the interior.</li> </ul>	<p>Documents prepared by consulting firm.</p> <p>Endorsement by GOSU through Steering Committee for project.</p> <p>Tariff rates as approved by GOSU.</p> <p>Reports from NIMOS, SWM and NH</p>	<p>Economic stability</p> <p>Different agencies within GOSU accept changes in the institutional and regulatory framework of the sector</p> <p>Public participation is active and population support TC outcomes</p> <p>Public participation is active and population support TC outcomes</p>

**SURINAME**  
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**(SU-T1045)**

**DETAILED BUDGET**

Component	Unit	#	Value US\$	Source		Total US\$
				FSO	Local	
<b><u>Component 1: Water Supply Master Plan</u></b>						
Sector Assessment Greater Paramaribo & Coastal Areas	Months	4.0	20,000	80,000		80,000
Sector Assessment Interior	Months	4.0	20,000	80,000		80,000
Mapping of watersheds & infrastructure	Months	1.5	20,000	30,000		30,000
Investment Plan Greater Paramaribo & Coastal Areas	Months	1.75	20,000	35,000		35,000
Investment Plan Interior	Months	2.0	20,000	40,000		40,000
Travel, per diem	Global			40,000		40,000
Transport, office costs, general support	Global			-	5,000	5,000
Subtotal				305,000	5,000	310,000
<b><u>Component 2: Inst. Development Strategy and Legislative &amp; Regulatory Framework</u></b>						
Institutional assessment	Months	1.5	20,000	30,000		30,000
Design Tariff Policy	Months	1.5	20,000	30,000		30,000
Design regulatory body water sector	Months	1.5	20,000	30,000		30,000
Business Plans SWM and NH/DWV	Months	1.0	20,000	20,000		20,000
Water quality monitoring program	Months	0.5	20,000	10,000		10,000
Travel, per diem	Global			35,000		35,000
Transport, office costs, general support	Global				5,000	5,000
Subtotal				155,000	5,000	160,000
<b><u>Stakeholder Consultation Plan</u></b>						
Design and Implementation of Plan	Months	0.75	20,000	15,000		15,000
Travel, per diem	Global			5,000		5,000
Transport, office costs, general support	Global				5,000	5,000
Subtotal				20,000	5,000	25,000
<b><u>Monitoring and Evaluation</u></b>						
Progress Reports, office support	Global			10,000	5,000	15,000
Steering Committees	Global				5,000	5,000
Evaluation and Auditing	Global			10,000		10,000
Subtotal				20,000	10,000	30,000
<b>Total</b>				<b>500,000</b>	<b>25,000</b>	<b>525,000</b>

**SURINAME**  
**WATER SUPPLY MASTER PLAN FOR SURINAME**  
**(SU-T1045)**

**PROCUREMENT PLAN**

**General information**

**Country:** Suriname

**Beneficiary:** Suriname

**Executing Agency:** N.V. Surinaamsche Waterleiding Maatschapij (SWM)

**Project name:** Water Supply Master Plan for Suriname

**Project number:** SU-T1045

**Brief description of the project's objectives and components:** The objective of this operation is to contribute to the improvement in the provision of potable water of acceptable quality and quantity to the population of Suriname. The purpose of the operation is to provide the technical and institutional framework for the development of an improved and sustainable supply of potable water to urban and rural communities of Suriname.

**Estimated date of project approval:** November, 2008

**Estimated date of signature:** January, 2009

**Estimated date of the final disbursement:** May, 2010

**A. Introduction**

Procurement will be carried out by the Executing Agency, SWM, in accordance with the "Policies for the Selection and Contracting of Consultants financed by the Bank" (GN-2350-7) of July 2006. The project will finance two procurement processes: i) the selection and contracting of a consulting firm or association of firms to carry out the two components of the TC, as stipulated in the TORs presented in Annex IV; and ii) an individual consultant to carry out the final evaluation of the project.

**B. Procurement plan**

The procurement plan for the "Water Supply Master Plan for Suriname" covering the 13 months of project execution has been agreed between the Bank and the Government of Suriname. The plan, which is summarized in Appendix 1, indicates the procedure to be used for the procurement of goods, the contracting of works or services, and the method of selecting consultants, for each contract or group of contracts. It also indicates the estimated cost of the contract.

SWM will be the executing agency for the TC. Since its creation in 1930, SWM has been the main water supplier in Suriname, supplying water to over 70% of the population of the country. SWM is the principal agency in Suriname where expertise in water supply engineering resides and is therefore best suited to be the executing agency for the operation. In addition to this, the GOSU has initiated a process by which water supply facilities operated by NH/DWV are being transferred to SWM. Given that SWM is gradually

increasing its customer base, choosing it as Executing Agency is the most appropriate decision for the execution of the project.

The procurement plan is available on the Bank's website: [Project Procurement Information](#)

### **C. Project procurement**

The following is a general description of the procurement planned for the proposed project.

**Procurement of consulting services:** Consulting services for the project include the hiring of a consulting firm to develop the Water Supply Master Plan for Suriname (both components of the TC). Additionally, one individual consultant will be hired to do the final evaluation of the TC.

## APPENDIX 1

### General information

**Country:** Suriname

**Beneficiary:** Suriname

**Executing Agency:** N.V. Surinaamsche Waterleiding Maatschapij (SWM)

**Project name:** Water Supply Master Plan for Suriname

**Project number:** SU-T1045

**Brief description of the project's objectives and components:** The objective of this operation is to contribute to the improvement in the provision of potable water of acceptable quality and quantity to the population of Suriname. The purpose of the operation is to provide the technical and institutional framework for the development of an improved and sustainable supply of potable water to urban and rural communities of Suriname.

**Estimated date of project approval:** November, 2008

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**Estimated date of the final disbursement:** May, 2010

**Support for Second Low Income Settlement Program  
(SU-T1055)**

**Period included in this Procurement Plan: From: January 2009 until May 2010**

Ref. No. <sup>1</sup>	Description and type of the procurement contract	Estimated Contract Cost (US\$)	Procurement method <sup>2</sup>	Review (ex-ante or ex-post)	Source of financing and percentage		Pre-qualification <sup>3</sup> (Yes/No)	Estimated dates		Status <sup>4</sup> (pending, in process, awarded, cancelled)	Comments
					IDB/FSO %	Local/ Other %		Publication of specific procurement notice	Completion of contract		
	<b>1. <u>Consulting services</u></b>										
	○ <b>Development of the Water Supply Master Plan for Suriname.</b>	US\$ 490,000	QCBS	Ex-ante	100%		Yes	Mar. 2009	May 2010	Pending	
	○ <b>Mid Term and Final Evaluation</b>	US\$10,000	IICC	Ex-ante	100%		No	Nov. 2009	May 2010	Pending	

<sup>1</sup> If a number of similar individual contracts were to be executed in different places or at different times, these can be grouped together under a single heading, with an explanation in the comments column indicating the average individual contract amount and the period during which they would be executed. For example, an education project that includes school construction might include an item "school construction" for a total of US\$20 million, and an explanation in the comments column such as: "This encompasses some 200 contracts for school construction averaging US\$100,000 each, to be awarded individually by participating municipal governments over a three-year period between January 2006 and December 2008."

<sup>2</sup> **Goods and Works:** **ICB:** International competitive bidding; **LIB:** limited international bidding; **NCB:** national competitive bidding; **PC:** price comparison; **DC:** direct contracting; **FA:** force account; **PSA:** Procurement through Specialized Agencies; **PA:** Procurement Agents; **IA:** Inspection Agents; **PLFI:** Procurement in Loans to Financial Intermediaries; **BOO/BOT/BOOT:** Build, Own, Operate/Build, Operate, Transfer/Build, Own, Operate, Transfer; **PBP:** Performance-Based Procurement; **PLGB:** Procurement under Loans Guaranteed by the Bank; **PCP:** Community participation procurement. **Consulting Firms:** **QCBS:** Quality- and Cost-Based Selection **QBS:** Quality-Based Selection **FBS:** Selection under a Fixed Budget; **LCS:** Least-Cost Selection; **CQS:** Selection based on the Consultants' Qualifications; **SSS:** Single-Source Selection. **Individual Consultants:** **NICQ:** National Individual Consultant selection based on Qualifications; **IICC:** International Individual Consultant selection based on Qualifications

<sup>3</sup> In the case of new Policies it applies only for Goods and Works. In the case Old Procurement Policies it applies for Goods, Works and Consulting Services.

<sup>4</sup> This column "Status" should be used for retroactive procurement and for procurement plan updates.