

PROJECT COMPLETION REPORT(PCR)

A. PROJECT DATA AND KEY DATES

I. BASIC INFORMATION

Project number: P-RW-E00-010	Project name: Rural Drinking Water Supply and Sanitation Programme - PNEAR (First Sub-programme)	Country: Republic of RWANDA	
ID numbers of Lending Instrument(s): Loan Agreement No. 2100150007224 (13/05/2004) Grant Agreement No. 2100155002044 (13/05/2004)		Sector: Drinking Water and Sanitation	Environmental classification: II
Original commitment: UA 17.18 million comprising: UA 13.00 million from the ADF, and UA 4.18 million from the Government and beneficiaries	ADF amount re-allocated for the food crisis (FC): UA 3.442 million	ADF amount disbursed net of the FC: UA 9 351 895. 30	% of ADF amount disbursed net of the FC): 98.06 %
Borrower: Government of the Republic of Rwanda			
Executing Agency (ies): Ministry of Infrastructure (MININFRA), Programme Coordination Unit (PCU), Common Development Fund (CDF ¹), Kigali Institute of Science and Technology (KIST), Central Bureau of Public Investments and External Financings (CEPEX).			
Co financiers and Other External Partners: NA			

II. KEY DATES

Project Concept Note approved by Ops. Com: NA	Appraisal report cleared by Ops.Com.: NA	Board Approval: 17 December 2003	
Restructuring(s): NA			
	Original date	Actual date	Difference in months
Monitoring and supervision mission dates	No original mission timetable was provided in the Project Appraisal Report (PAR).	17 to 26 March 2005 17 to 28 April 2007 09 to 15 December 2007 02 to 11 April 2008 24 November to 02 December 2008 10 to 18 June 2009 28 October to 5 November 2009	-
Date of signing grant and loan agreements	No date was originally scheduled in the PAR.	13 May 2004	-
EFFECTIVENESS	01 January 2005	30 March 2005	3
MID-TERM REVIEW	NA	NA	N/A
CLOSING	31 December 2009	31 December 2009	0

¹ Otherwise referred to as the Community Development Fund, this Fund was established by the Government in 2002 to implement and support its decentralization policy. The State annually votes 10% of the national budget in addition to the contributions of the various donors to finance the different development projects in all the country's districts.

III. RATINGS SUMMARY

CRITERIA	SUB-CRITERIA	SCORE
PROGRAMME OUTCOME	Achievement of outputs	4
	Achievement of outcomes	4
	Timeliness	4
	OVERALL PROJECT OUTCOME	4
BANK PERFORMANCE	Design and Readiness	3
	Supervision	3
	OVERALL BANK PERFORMANCE	3
BORROWER PERFORMANCE	Design and Readiness	3
	Implementation	4
	OVERALL BORROWER PERFORMANCE	3

IV. BANK STAFF RESPONSIBLE

POSITIONS	AT APPROVAL	AT COMPLETION
Regional Director	J. GHARBI	D. GAYE, OREA
Sector Director	G. MBESHURUBUSA	S. JALLOW, OWAS
Sector Division Head	M.S.K NNAMA	S. JALLOW
Task Manager	M.M. EL AZIZI	ELHADJI AMADOU MBAYE
PCR Team Leader		ELHADJI AMADOU MBAYE
PCR Team Members		MOHAMMED KHOALI

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B. PROJECT CONTEXT

Based on the Communities' demands in its different phases of implementation, the Sub-programme has remained in keeping with the Water and Sanitation sector policy. It is also consistent with the Government's decentralization policy, which became effective in March 1999 with the election of Community Development Committees (CDC) in the units, sectors and municipalities.

The Sub-programme contributed to the realization of the sector water and sanitation policy objectives in the intervention zones, namely: (i) providing families with drinking water that is accessible in adequate quantities, (ii) providing families access to an adequate system of sanitation, (ii) Community management and involvement and in all sector activities, (iii) the protection, preservation, rehabilitation and development of all water resources; and (iv) development of the sector through a process geared toward high community involvement in projects that propose viable financial and technological options for sustainable development of the sector (Ubudehe approach)².

The Sub-programme has promoted as well as slotted into the decentralization strategy adopted by the Government. It gave underprivileged rural folk enhanced access to a sustainable drinking water supply and sanitation and also increased their income through the community activities adopted as part of the Ubudehe approach. The Sub-programme resulted in consolidation of the self-management capacities of the grassroots communities as well as reinforcement of public and private institutions, since it provided them support and assistance. Consequently, the Sub-programme contributed to attaining the general goal of improving the living conditions of the rural populations.

² This approach advocated by the Government for community activities consists in getting the community itself to carry out the relevant activities with the technical and financial assistance provided by the projects concerned. It was therefore a way of building the technical capacities of the grassroots communities while generating income for them as part of poverty reduction efforts, as recommended by the Economic Development and Poverty Reduction Strategy Paper (EDPRS)

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C. PROJECT OBJECTIVES AND LOGICAL FRAMEWORK

1. Objectives

Overall programme objective

The programme objective was to provide rural communities with sustainable drinking water supply and sanitation services to improve their living conditions.

Specific objectives of the Sub-programme

The specific objectives of the sub-programme were: i) improve access to drinking water and sanitation in rural localities in the Kibuye, Kibungo, Byumba provinces and in the Lava region; ii) provide the country with the means of monitoring/evaluating the DWSS sector; iii) build capacities to ensure sustainability of DWSS services in rural areas; and iv) prepare the subsequent phases of execution of the national programme (PNEAR).

2. Components

Component A): Studies and Planning tools

To ensure enhanced knowledge of the country's water resource potential and existing infrastructure, as well as the monitoring of interventions in the sector, consultancy services were commissioned to establish the relevant planning and monitoring tools. Thus, with a view to properly monitoring and evaluating the various phases of the programme up to its completion in 2020, a Plan of Action underpinned by environmental and social impact studies was designed at the end of the first stage of the PNEAR, for the next phase. It was discussed by the Government and donors for adoption. Each subsequent phase of the national programme will follow the same procedure.

Component B): Capacity building

This activity involved building the capacities of: (i) the State organs at the centralized level (including the Common Development Fund, CDF) and the decentralized level, with a view to facilitating the execution of the Sub-programme while promoting development of the sub-sector; (ii) the grassroots communities, to enable them ensure the sustainable functioning of the DWSS infrastructure put in place; (iii) the private operators and NGOs involved in the sector in the rural areas, especially for enhanced management and operation of hydraulic structures.

Component C): Development of DWSS infrastructure

Different types of sub-projects were implemented under the Sub-programme:

i) Small sub-projects: simple water supply systems comprising development of a source, a supply pipe connected to a small reservoir, and a standpipe. These were accompanied by the construction of latrines in the villages concerned. The works were executed (through the community participatory process, "Ubudehe") by the communities or groups of beneficiaries organized under the responsibility of the CDC, with the assistance of a standpipe operator.

ii) Medium sub-projects: multi-village pipe-water supply network with a catchment system, a borehole or intake system and two to three reservoirs connected to standpipes. These types of works were entrusted to specialized local enterprises. The CDC was to play the role of project owner/supervisor, with the assistance of a technical support organization.

iii) Sub-projects grouped into an inter-municipal project: These WSS systems cover several districts, since the links between the different districts consist of headworks (sources, water treatment plants, water supply, discharge, reservoirs). The integration and consolidation of these types of sub-projects have been achieved through awareness campaigns and community mobilization, and their realization has been entrusted to technical and social support organizations.

iv) Complex sub-projects: these were large rural water supply systems composed of a water supply connection, treatment plant, delivery and supply pipes, pumping stations, buffer tanks, distribution networks and, lastly, standpipes and individual service pipes. This type of large water supply system was implemented under this Sub-programme.

v) Pilot sub-projects: these consisted in the disposal of sewage and rainwater of the new “*Imidugudu*³” villages and neighbourhood Centres, including experiments in community refuse collection and its composting and processing into biogas. The choice of the villages and centres to benefit from these actions was dictated particularly by the following criteria: (i) the willingness of districts and communities concerned to share investment costs and bear all the costs of maintenance and operation of the installations; (ii) prevalence of diseases linked to the stagnant used and rain water; and (iii) risk of inundation.

Component D)- Programme management

This component comprised all the activities required for the implementation of this Sub-programme and the subsequent phases of the national programme (PNEAR). They are:

- (i) planning, management and coordination of the operations;
- (ii) monitoring of the activities for execution of the of the Sub-programme components;
- (iii) keeping of accounts and monitoring disbursements;
- (iv) accounts audit;
- (v) CDC supervision;
- (vi) validation of Community sub-projects,
- (vii) procurements for national projects,
- (viii) monitoring and evaluation;
- (ix) establishment of the National Drinking Water and Sanitation Agency in rural areas;
- (x) monitoring and coordination of studies for preparation of the subsequent phases of the programme; and
- (xi) information and communication.

3. Assessment of project objectives

PROGRAMME OBJECTIVES DIMENSIONS		ASSESSMENT	SCORE
RELEVANT	a) Relevant to the country's development priorities.	Increasing economic and social development through availability of water and reducing water-borne diseases in rural areas by providing sanitation structures will lead to consolidation of the outputs of the Government programme as set out in the economic development and poverty reduction strategy paper (EDPRS) and proposed in the MDG and Rwanda's Vision 2020.	4
ACHIEVABLE	b) Objectives could in principle be achieved with the programme inputs and in the expected timeframe.	Given the resources available, the water supply objectives were attained and even exceeded within the originally prescribed deadlines. In addition, the Government counterpart was raised to a level higher than the initial commitments.	4

³ Local term for communal settlements.

CONSISTENT	c) Consistent with the Bank's national or regional strategy.	The objectives help consolidate the country's strategy (EDPRS) and are consistent with that of the Bank, in terms of the rural DWSS.	4
	d) Consistent with the Bank's general priorities.	The objectives are consistent with the general priorities of the Bank and with the Bank's rural drinking water supply and sanitation Initiative.	4

4. Table of Outputs and Indicators

COMPONENTS	ACTIVITIES	OUTPUTS	EXPECTED OUTCOMES	INDICATORS TO BE MEASURED
Component A: Studies and Planning tools	Activity 1: Establishment of a Planning system	Output 1: Sector Monitoring and Planning tools available	Outcome 1: Provide the country with the means for monitoring the DWSS sector	1 National PNEAR monitoring/evaluation system and 1 National Information database on rural DWSS infrastructure established and operational
	Activity 2: Technical and Preparatory studies	Output 2: Subsequent Programme phases prepared	Outcome 2: Prepare the subsequent Programme phases	. Water works plans for 6 districts prepared . Final designs for preparation of the second phase of the Programme carried out.
Component B: Capacity building	Activity 1: Build the capacities of the parties involved (central, decentralized level, private sector, NGO, management staff and programme technicians)	Output 1: Capacities of the parties involved built	Outcome 1: Build capacities to ensure the sustainability of DWSS services in the rural areas	358 persons trained within the following departments/agencies: (i) Ministries concerned with the programme, DEA and Rwandan Regulatory Authority; (ii) Decentralized departments of the North and East Provinces (formerly Byumba and Kibungo Provinces), REAP, CDCs, NGOs and private operators of the sector.

	<p>Activity 2:</p> <p>Training and sensitization of beneficiaries</p>	<p>Output 2:</p> <p>Beneficiaries sensitized and trained</p>	<p>Outcome 2:</p> <p>Build capacities to ensure the sustainability of DWSS services in rural areas</p>	<p>In the West province (formerly Kibuye Province): 10,000 persons, 50 facilitators, and 30 resource persons were trained. Teaching equipment for 5,000 persons was re distributed, and 5,000 persons educated and sensitized</p>
<p>Component C:</p> <p>Development of DWSS infrastructure</p>	<p>Activity 1:</p> <p>Development of water infrastructure</p>	<p>Output 1:</p> <p>The East and West provinces (formerly Kibungo and Byumba Provinces) as well as in the Lava region equipped with DWS networks</p>	<p>Outcome 1:</p> <p>Improve access to drinking water and sanitation in rural areas in the East and West Provinces (formerly Kibungo, Kibuye and Byumba Provinces as well as in the Lava region (Ruhengeri and Gisenyi provinces). These works made it possible to provide 495,623 persons with drinking water and 16,200 with adequate sanitation systems.</p>	<ul style="list-style-type: none"> . Network of large DW systems of the Lava region (Mutobo basse) rehabilitated and extended. . 4 DWS networks established as part of the project for 4 water supply systems in the North and East regions (formerly Byumba and Kibungo provinces), 1,084 water sources developed for DWS and equipped with hand-wash basins. . Update of tender dossiers for the secondary distribution network in the Lava region. . Update of technical studies and tender dossiers for batches 6 and 7 in the Lava region. . Control and monitoring of the works carried out in the Lava region

	<p>Activity 2:</p> <p>Development of sanitation infrastructures</p>	<p>Output 2:</p> <p>Kibuye province equipped with water points and individual sanitation</p>	<p>Outcome 2:</p> <p>Improve access to rural drinking water and sanitation in the Kibungo, Kibuye and Byumba provinces</p>	<p>. 2,120 family latrines dug and 19 collective latrine blocks constructed (126 cubicles), for 16,200 users.</p>
<p>Component D: Programme Management</p>	<p>Activity 1:</p> <p>Programme Management and Technical Assistance</p>	<p>Output 1:</p> <p>PCU and, subsequently, Agency established</p>	<p>Outcome 1:</p> <p>Ensure programme coordination and management</p>	<p>Agency study conducted and Manual of procedures of Agency available, personnel recruited</p>
		<p>Output 2:</p> <p>Programme Monitoring and Evaluation tools established</p>	<p>Outcome 2:</p> <p>Prepare the subsequent phases of the programme</p>	<p>. Social and Environmental Impact Study Reports available</p> <p>. Three programme audits conducted</p> <p>. Programme monitoring and evaluation system described in the Manual of Procedures</p>
		<p>Output 3:</p> <p>Donors sensitized and mobilized on the question of the rural DWSS</p>	<p>Outcome 3:</p> <p>Undertake promotion of the Initiative</p>	<p>Significant increase of investments in rural DWSS</p>

5. Attainment of logical framework objectives.			
LOG FRAME DIMENSIONS		ASSESSMENT	WORKING SCORE
LOGICAL	a) Presents a logical causal chain for achieving the development objectives	The activities, outputs and outcomes are linked by a causal chain to achieve the development objectives of the Programme	4
MEASURABLE	b) Expresses objectives and outcomes in a way that is measurable and quantifiable.	Expresses the objectives and outcomes in a way that is measurable and quantifiable.	4
THOROUGH	c) States the risks and key assumptions.	Assumptions and risks well identified at design, and mitigative measures are proposed but do not appear in detail in the logical frame.	3

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D. OUTPUTS AND OUTCOMES

I. ACHIEVEMENT OF OUPUTS

PRINCIPAL ACTIVITIES		Working Score	Proportion of Project costs in % (as referred to in the appraisal report)	Average scores (automatically generated)
Expected outputs	Actual outputs			
1. Monitoring and Planning tools available	. Database available . Information management system established . DWSS infrastructure monitoring and evaluation system available	4	4.17	0.167
2. Six technical study reports expected	. Six technical study reports available	4	6.06	0.242
3. Training of 329 persons at central and decentralized level in the private sector and in the NGOs	358 persons trained at central and decentralized level in the private sector and in the NGOs	4	2.02	0.081
4. Training of 30 Resource persons and 50 facilitator/outreach workers, and sensitization of 1,000 persons. Teaching materials for 5,000 persons distributed; 5,000 persons educated and sensitized	<ul style="list-style-type: none"> ❖ 30 trainers and 50 facilitators/outreach workers trained; ❖ 1,000 persons trained to manage the sources developed; ❖ Sensitization materials; procured ❖ 10 000 persons sensitized ❖ 59 standpipe operators and 78 masons trained. 	4	2.02	0.081
5. Construction of 5 water supply networks and 1,000 developed sources to initially serve 270,000 persons	. 6 water supply networks constructed and 1,084 sources serving 495,623 persons ⁴	4	77.20	3.09
6. Construction of 2000 individual	. 2,120 individual latrines and 19 public latrine blocks (126 cubicles)	4	3.16	0.126

⁴ The 84 % increase in the number of persons connected (from 270,000 to 495,623) in relation to the original estimates is due to a combination of the following 3 factors: (i) at appraisal, each of the 1,000 sources was expected to connect about 100 persons, at achievement, however, it was observed that each of the 1,084 sources developed connected about 235 persons, i.e. a total of 255,276; (ii) the fact that preference was given to the rehabilitation of high-capacity reservoirs (2,000 m³) instead of the construction of new modest structures for the 4 medium-scale DWS, 94,375 persons were connected, compared to the 58,000 originally anticipated; and (iii) the major Mutera DWS constructed with additional Government funds made it possible to connect 38,562 more people. To these figures must be added the 107,410 persons connected by the major DWS carried out under the project.

latrines initially to serve 12,000 persons	constructed, 25 rainwater collection Reservoirs (360 m ³ capacity) serving 16,200 persons			
OVERALL OUTPUT SCORE [score is calculated as the average of working scores]				3.729
		X	Check here to override the calculated score	
Provide justification for overriding the auto-calculated score				
Insert the new score or re-enter the auto-calculated score				3.729
II. ACHIEVEMENT OF OUTCOMES				
OUTCOMES				Working score
Expected	Actual			
1. Provision of the country with the means to monitor the DWSS sector	<ul style="list-style-type: none"> . Database is available . An information management system is established . A system for monitoring and evaluating DWSS infrastructure is available 			4
2. Improvement of per capita consumption from 8 l/day/inh. to 20 l/day/inh. . Improvement of the rate of access to water and sanitation from 40 % to 49 % in these zones. . Sustainable water supply to 270,000 persons in the project zones . Provision of 12,000 persons with adequate sanitation systems	<ul style="list-style-type: none"> . Per capita consumption improved from 8 l/day/inh. to 20 l/day/inh. . Rate of access increased from 40 % to 54 % for drinking water and from 5% to 9 % for sanitation in these zones. . 495,623 persons sustainably supplied with water in the project zones instead of the 270,000 initially anticipated. . 16,200 persons provided with sanitation instead of the 12,000 originally anticipated. 			4
3. Build capacities to ensure the sustainability of DWSS services in rural areas	<ul style="list-style-type: none"> . Capacity building for 358 management staff and municipal authorities; . 78 masons, 59 standpipe operators trained; . Committees set up to manage the water structures, and their directors trained; . The whole population sensitized to hygiene and maintenance of the living environment. 			4
4. Promote the Initiative and preparation of the subsequent phases of the national Programme	The Bank and the Borrower promoted the DWSS initiative in rural areas: (i) the second phase was prepared and evaluated; and (ii) donors of the sector are adhering to the process.			4
OVERALL OUTCOME SCORE				4

		Check here to override the calculated score
Provide justification for overriding the auto-calculated score		
Insert the new score or re-enter the auto-calculated score		4
2. Other outcomes:		
<p>One of the major impacts of the Sub-programme for women and children lies in the fact that it saved the precious time (nearly 3 hours) and energy hitherto spent fetching water, since the households obtained standpipes nearby. This time gain will enable women to become more involved in other income-generating activities such as market gardening, and children will improve their school attendance rate.</p>		
3. Constraints weighing on the viability of the outcomes obtained.		
<p>Five principal threats to the viability of the Sub-programme results have been identified concerning: <i>i)</i> the local communities' capacity to meet the responsibilities falling to them within the framework of the Government's envisaged decentralization policy, especially the actual transfer of water structure management skills at local level, without any interference by the Government or its local representatives in the choice of beneficiary communities or in the management of equipment; <i>ii)</i> the lack of application of the institutional provisions contained in the Government's sector policy documents to sanitize the sector and make it more attractive; <i>iii)</i> the lack of contribution by the beneficiary populations; <i>iv)</i> the failure to extend private management to the structures of the Sub-programme; and, lastly, <i>v)</i> the Government's failure to recruit the requisite permanent and well-trained personnel for the management of the computer databases and the DWSS infrastructure monitoring and evaluation system put in place at national level; indeed, that would keep the sustainability and durability of the system compromised. These constraints have however been remedied under this project, giving the instructive lessons set out in section H of the report.</p>		

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E. PROGRAMME DESIGN AND READINESS FOR IMPLEMENTATION

Programme design took account of the experience gained in the execution of water sector and sanitation projects, such as the one funded by the World Bank: Project for the Supply of Drinking Water and Sanitation in Rural Areas (PEAMR). A few aspects were noted in the process: limited intervention capacities of the stakeholders in the sector, weaknesses in coordination of the actions of the different parties involved, and the private operators' inadequate management and operation of the structures once they had been put in place. It is for these reasons that provision was made in the design of this Sub-programme for a major component to build capacities. Furthermore, the Programme Coordinating Unit was entrusted with the extremely important roles of facilitator and catalyst. Account was also taken of ongoing activities and those envisaged by the other partners in the water and sanitation sector in determining the Sub-programme's areas of intervention, with the result that there was enhanced efficacy and synergy of actions with the other actors.

2. Design assessment

PROGRAMME DESIGN AND READINESS FOR IMPLEMENTATION DIMENSIONS		ASSESSMENT	Working score
REALISM	a) Programme conditionality is matched by country capacity and political commitment.	The programme is complex in its design. However, adequate measures were taken jointly by the different partners (manual of procedures) to facilitate its execution and ensure successful implementation.	3
RISK ASSESSMENT AND MITIGATION	b) Programme design includes adequate risk analysis.	To the extent possible, the evaluation of the Sub-programme took account of the risks evident at the time of the design. Nonetheless, additional mitigative measures were taken during its implementation with a view to attaining the objectives.	3
USE OF COUNTRY SYSTEMS	c) Systems of procurement, financial management, monitoring and/or other systems are based on those already in use by Government and/or other partners.	The country's procedures were applied through the CDF and KIST in carrying out Community activities (Ubudehe approach) for the development of 1,084 sources and construction of 2,120 family latrines and 19 public comfort stations.	4

For the following dimensions, provide separate working scores for Bank performance and Borrower performance:			Working score	
			Bank	Borrower
CLARITY	d) Responsibilities for programme implementation are clearly defined.	Responsibilities were clear on the Bank's side and for the other stakeholders of the water and sanitation sector.	4	4
PROCUREMENT READINESS	e) Documents required for execution (documents on specifications, design, procurement, etc.) are ready at appraisal.	The documents on the major supply works were available. However, those concerning the studies and Community sub-projects were not, given the demand approach recommended by the national programme (PNEAR).	4	4
MONITORING READINESS	f) Monitoring indicators and plan are adopted.	Monitoring indicators were clear and followed during the missions.	3	3
BASELINE DATA	h) Baseline data available or under collection	Certain baseline data, such as the rate of supply of drinking water and sanitation facilities, types of water and sanitation structures, appropriate sanitation technologies, intervention of the different donors, constraints and opportunities, were available at project appraisal. These data were subsequently supplemented and others identified through the national inventory of water infrastructure constructed under the Sub-programme.	4	4

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F. IMPLEMENTATION

- The implementation of the first phase of the national programme was on schedule. The quality of the water and sanitation structures was satisfactory. The performance of the construction companies, consultancy firms and suppliers was also satisfactory. There was no significant delay in the attainment of the objectives within the contract deadlines.
- Performance of ADB supervision: The Bank fielded 7 out of the anticipated 10 supervision missions. There is no doubt that the instability of the project directors during the initial years of the sub-programme implementation contributed to delaying some non-objection notices required during that period. That apart, the Bank's intervention was constructive and positive on the whole. Through the participatory approach involving the Government side, it arrived at rapid and relevant solutions to the problems raised, thus making an appreciable contribution to attainment of the Sub-programme objectives .
- Borrower Performance: The Government provided additional financial support that made it possible to fund the realization of more structures than anticipated (1 additional DWS and 30 supply network extensions). That partly explains the fact that the sub-programme was able to provide drinking water to 495,623 persons instead of the 270,000 initially anticipated.

2. Comments on the role of the other partners

- The programme contractors proved equal to their commitments. The only setbacks related to the unavailability on the local market of certain equipment required for executing the structures . This situation sometimes caused delivery delays.
- Thanks to the agreement signed between the oversight Ministry and the Kigali Institute of Science and Technology (KIST), Biogas systems, water and rainwater collection reservoirs as well as latrines were put in place, in accordance with the initial plan.
- Furthermore, within the framework of the decentralization policy initiated by the Government, the funds for the construction of the 2,120 latrines for vulnerable families and development of the 1,084 sources were transferred to the districts via the Common Development Fund (CDF). This process led to speedy realization of the corresponding works in keeping with the "Ubudehe" Community approach.
- As regards collaboration between the sector financial partners, quarterly coordination meetings of the water and sanitation sector including all the other donors (World Bank, ABEDA, European Union, IFAD, UNICEF, UNDP, Japanese, Austrian, German and Belgian Cooperation) led by the ADB, made it possible to harmonize the intervention of the different partners and chart a path for consolidation of the programme approach chosen by the Government. It is in this context that a harmonized manual of procedures of PNEAR was adopted by the Government and its technical and financial partners.

3. Harmonization.

The Bank, in collaboration with the other technical and financial partners, was involved in the discussions on the establishment and adoption of the manual, with a view to harmonizing the sector's procedures. Moreover, at the proposal of CEPEX, the Government procured standard software for the monitoring/evaluation of national projects and programmes so as to better unify the intervention frameworks per sector. Lastly, the Government harmonized procurement procedures, under the supervision of Rwanda's Public Procurement Office (RPPA).

4. Attainment of implementation objective				
PROGRAMME IMPLEMENTATION DIMENSIONS		ASSESSMENT		Working score
TIMELINESS	a) Extent of project adherence to the original closing date. If the number on the right is: below 12, 4 is scored; between 12.1 and 24, 3 is scored; between 24.1 and 36, 2 is scored; and beyond 36.1, 1 is scored.	Difference in months between original closing date and actual closing date or date of 98 % disbursement	The set closing date of the Sub-programme, 31 December 2009, was respected.	4
		0		
BANK PERFORMANCE	b) Bank enforced:			
	Environmental safeguards	The environmental benefit of the Sub-programme will without doubt be significant for the communities, considering the nature of the sanitation structures put in place, the protection of the intervention zone reinforced through implementation of measures such as systematic reforestation of the catchment areas located alongside the water collection sources, as well as the institution of periodic analyses of water quality,		4
	Fiduciary requirements	The fiduciary provisions were respected on the whole.		4
	Conditions and Triggers	There was no delay in signing the agreements.		3
	c) Bank provided quality supervision in the form of skills mix and practicality of solutions.	The Bank's supervisions were constructive and satisfactory. Moreover, execution of some activities was accelerated by delegating some aspects to the field office.		3
d) Bank provided quality management oversight.	The average frequency of oversight was 1.6 per year (higher than the 1.5 norm) from the actual start-up of the sub-programme.		4	
BORROWER PERFORMANCE	e) Borrower complied with:			
	Environmental safeguards	Provisions relating to environmental safeguards were included in the Tender Documents for the construction of the DWSS systems. These works were executed taking due account of the environmental safeguards existing in the relevant national Code.		4
	Fiduciary requirements	The Government counterpart was paid on a regular and timely basis. The Government even went beyond its original commitments to enable more people to have convenient access to drinking water.		4
	Conditions and Triggers	There was a 3-month slippage in the implementation of the sub-programme. This however did not have any impact on the attainment of the specific objectives.		2
	f) Borrower was responsive to Bank supervision findings and recommendations	The Borrower was always responsive to Bank supervision mission recommendations and the assessment of their implementation in each		4

		subsequent mission gave satisfactory results.	
	g) Borrower collected and used monitoring information for decision-making.	For decision-making, the Borrower made good use of the information drawn from the monitoring process.	4

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G. COMPLETION

1. Was the PCR delivered on a timely basis, in compliance with Bank Policy?

Date of 98 % disbursement (or closing date, if applicable)	Date PCR was sent to pcr@afdb.org	Difference in months	WORKING SCORE (auto-calculated) If the difference is 6 months or less, a 4 is scored. If the difference is 6 months, a 1 is scored.
31/12/2009	06/04/2010	0	4

A first PCR draft was prepared by the Coordinating Unit in October 2009 and discussed with the Bank supervision mission in late October – early November 2009. These were followed by meetings, field visits and exchanges with beneficiaries and officials of the Ministry of Infrastructure, Ministry of Finance and Economic Planning (CEPEX/MINECOFIN), the technical team of the ADB resident mission and the Programme Coordinating Unit.

This enabled the different stakeholders to appraise the output of the Sub-programme and to make recommendations on the measures required to ensure that the water infrastructure and sanitation systems put in place function sustainably. As a result, it was recommended that the management and operation of the drinking water structures be delegated to private operators, considering the positive results already obtained by that process in the country.

Moreover, the pilot project carried out by KIST contributed to mitigating the risks of underground water contamination and especially combating deforestation (biogas replacing the use of domestic wood).

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H. LESSONS LEARNED FROM THE APPRAISAL/EVALUATION

The following four main lessons can be drawn from the Bank's previous commitments in the water sector and sanitation in the country, especially those of Phase 1 of the PNEAR (first sub-programme):

(i) The efficiency of DWSS infrastructure management by private operators in the framework of Public/private partnership in rural areas. This is seen in the fact that this mode of private management of water supply systems has caught on in the rural areas, as compared with the classic community modes. Management of hydraulic systems by private operators increased from 7% in 2003 to nearly 30% by late 2007 (the 847 DWS systems) with the Government aiming to attain 100 % over time, and extending this mode of management to the structures in the rural areas. It is therefore an added benefit that, in the effort to improve on and consolidate the positive gains made in that approach, the Sub-programme provided management capacity building for these sector private operators;

(ii) the use of the Common Development Fund (CDF) as a liaison facility in financing activities at district level not only helped encourage and consolidate the Government's decentralization policy but also accelerated the construction of the structures, while promoting the participation of the beneficiary populations, and subsequently strengthened their enhanced ownership of the structures put in place. This is a guarantee of the sustainability of service provided by the structures. Following this conclusive experience, the CDF was proposed to serve as a local liaison facility in the financing of DWS and construction of family and collective latrines, as part of phase II of the national programme (PNEAR);

(iii) inefficiency due to the multiplicity of agencies for execution of the different operations included in the national programme by the different donors; the Government therefore decided to establish a national water and sanitation agency, for more more effective unification and harmonization of all the donors' procedures in the sector. This agency, designated the *Energy, Water and Sanitation Agency (EWSA)*, was actually instituted on 24 December 2009, and its definitive establishment is in the process of finalization; and lastly

(iv) inadequate preparation of some projects of the Bank's portfolio for the country; nonetheless, considering the Government's decision to use the already-existing PNEAR Phase 1 coordinating unit, and the present availability of tender documents for the different works, the next phase of the PNEAR which is starting up, could be conducted without too much delay.

PROJECT COMPLETION REPORT (PCR)

I. PROJECT RATINGS SUMMARY

All working scores are auto-generated by the computer from the relevant section in the PCR

CRITERIA	SUB-CRITERIA	Working score
PROGRAMME OUTCOME	Achievement of outputs	4
	Achievement of outcomes	4
	Timeliness	4
	OVERALL OUTCOME SCORE	4
BANK PERFORMANCE	Design and Readiness	
	Project objectives are relevant to country development priorities	4
	Project objectives could in principle be achieved with the project inputs and in the expected timeframe.	4
	Project objectives are consistent with the Bank's country or regional strategy	4
	Project objectives are consistent with Bank's general priorities	4
	The logical framework presents a logical causal chain for achieving the programme development objectives.	4
	The logical framework expresses objectives and outcomes in a way that is measurable and quantifiable.	4
	The logical framework states the risks and key assumptions	4
	Project complexity is matched with country capacity and political commitment	4
	Programme design includes adequate risk analysis.	4
	Procurement, financial management, monitoring and/or other systems are based on those already in use by government and/or other partners.	4
	Responsibilities for programme implementation/execution are clearly defined	4
	Documents required for implementation (documents on specifications, design, procurement, etc.) are ready at appraisal	3
	Monitoring indicators and monitoring plan are adopted	4
	Baseline data is completed or ongoing	4

	DESIGN AND READINESS SUB-SCORE	4
	Supervision:	
	Bank enforced:	
	Environmental safeguards	4
	Fiduciary requirements	4
	Covenants and Triggers	3
	Bank provided quality supervision in the form of a skills mix and practicality of solutions	3
	Bank provided quality management oversight	4
	The PCR was delivered on time	4
	SUPERVISION SUB-SCORE	4
	OVERALL BANK PERFORMANCE SCORE	4
BORROWER PERFORMANCE	Design and readiness	
	Responsibilities for programme implementation were clearly defined	4
	Documents required for implementation (documents on specifications, design, procurement, etc.) were ready at appraisal	3
	Monitoring indicators and monitoring plan were approved	3
	PROJECT DESIGN AND READINESS SCORE	3
	Implementation	
	Borrower complied with:	
	Environmental safeguards	4
	Fiduciary requirements	4
	Covenants and Triggers	2
	Borrower was responsive to Bank's supervision findings and recommendations	4
Borrower collected and used monitoring information for decision making	4	
IMPLEMENTATION SUB-SCORE	3	
OVERALL BORROWER PERFORMANCE SCORE	3	

J. PROCESSING

STEP	SIGNATURE AND COMMENTS	DATE
Sector Manager Clearance	Sering JALLOW	29 March 2010
Regional Director Clearance	Diariétou GAYE	06 April 2010
Sector Director Approval	Sering JALLOW	06 April 2010

APPENDIX 1

Scale for Working Scores and Ratings

SCORE	EXPLANATION
4	Very Good - Fully achieved with no shortcomings
3	Good - Mostly achieved despite a few shortcomings
2	Fair - Partially achieved. Shortcomings and achievements are roughly balanced
1	Poor - Very limited achievement with extensive shortcomings
NA	Non Applicable

N.B.: Note: The formulas round up or down for decimal points. Only entire numbers are computed.

ANNEXES

A. MANDATORY INFORMATION

ANNEX 1: PROJECT COSTS AND FINANCING

a) PROJECT COST PER COMPONENT

Components	(RWF Million)			(UA Million)			% FE
	LC	FE	Total	LC	FE	Total	
A. Studies and planning tools	161	673	834	0.21	0.90	1.11	81 %
Establishment of a planning system	79	385	464	0.11	0.51	0.62	83 %
Technical and preparatory studies	82	251	333	0.11	0.33	0.44	75 %
Audits	0	38	38	0.00	0.05	0.05	100 %
B. Institutional support and capacity building	168	282	450	0.22	0.38	0.60	63 %
Capacity building at central level	44	175	218	0.06	0.23	0.29	80 %
Capacity building of decentralized structures	82	82	164	0.11	0.11	0.22	50 %
Capacity building of grassroots communities	42	26	68	0.06	0.03	0.09	38 %
C. Development of DWSSDWSS infrastructure	3436	4946	8382	4.57	6.58	11.16	59 %
Development of Water infrastructure	3151	4875	8026	4.20	6.49	10.68	61 %
Development of sanitation infrastructure	285	71	356	0.38	0.09	0.47	20 %
D. Programme management	202	356	558	0.27	0.47	0.74	64 %
Programme management	202	249	451	0.27	0.33	0.60	55 %
Technical Assistance	0	106	106	0.00	0.14	0.14	100 %
Project Total	3967	6257	10224	5.28	8.33	13.61	61 %
Physical contingencies	397	626	1022	0.53	0.83	1.36	61 %
Price escalation	644	1016	1660	0.86	1.35	2.21	61 %
TOTAL COST OF PROJECT	5007	7898	12906	6.67	10.51	17.18	61 %

b) SOURCE OF FUNDS

Sources of funds	Total in Million			% total
	LC	FE	Total	
Government	2.63	0	2.63	15 %
Beneficiaries	1.55	0	1.55	9 %
ADF loan	0	4.00	4.00	24 %
ADF grant	2.49	6.51	9.00	52 %
TOTAL	6.67	10.51	17,18	100 %

ANNEX 2: BANK INPUTS

a) INPUTS DURING PREPARATION

PRINCIPAL TEAM MEMBERS	POSITIONS
1. G. MBESHERUBUSA.	Director, OCIN
2. S.K. NNAMA	Division Manager, OCIN.1
3. M.EL AZIZI	Water and Sanitation Engineer, OCIN.1
4. O. NAKOULIMA	Financial Analyst, OCIN.2
5. L. ENNAHLI	Agricultural engineer, OCAR.1
6. J.VARANGO	Procurement Expert, PPRU
7.. R. BA	Gender Expert, OCAR
8.. L. JOOTTUN	Environmentalist, OCIN.0

b) INPUT DURING SUPERVISION

N°	Mission	Date	N° days	N° of pers.	Composition
1	Review and acceleration of programme implementation	17-26/05/2005	9	1	Ibrahima Amadou TRAORE, Water Engineer, Consultant and Mission leader
2	Supervision	17-28/04/2007	12	3	- Abderrahmane OUTAGUEROUINE, Senior Water and Sanitation Engineer, Mission leader - Akouété Folly - Patrick RUGUMIRE
3	Supervision	09-15/12/2007	6	3	
4	Supervision	02-11/04/2008	11	2	- El Hadji Amadou MBAYE, Senior Water and Sanitation Engineer, Mission leader - Mehdi KHOALI
5	Supervision	24/11 to 02/12/2008	9	4	- El Hadji Amadou MBAYE, Senior Water and Sanitation Engineer, Mission leader - Mehdi KHOALI - Dr Johanna Kristina MAULA - Patrick RUGUMIRE
6	Supervision	10-18/06/2009	9	2	- El Hadji Amadou MBAYE, Senior Water and Sanitation Engineer, Mission leader - Mohammed KHOALI
7	Supervision	28/10 to 05/11/2009 23/03/02	9	2	- El Hadji Amadou MBAYE, Senior Water and Sanitation Engineer, Mission leader - Mohammed KHOALI

ANNEX 3: ECONOMIC ANALYSIS

I. Rationale

1.1. As a drinking water supply and sanitation project, the PNEAR is not of the type of productive projects that aim at immediate financial returns or returns on investment. Its aim is to ensure a sustainable supply of the drinking water and sanitation services for rural dwellers, in order to improve their living conditions.

1.2. The Sub-programme was specifically aimed at: (i) improving the availability and quality of drinking water and sanitation services in rural areas; (ii) reducing arduous water fetching chores, especially of women and children; (iii) reducing the cost of water; (iv) reducing water-borne diseases; (v) promoting water-related income-generating activities; (vi) providing the country with the means of monitoring the DWSS sector and; (vii) building capacities to ensure the sustainability of DWSS services in rural areas.

1.3. In light of the foregoing, the analysis of the profitability of a rural DWSS project is mainly geared towards analysis of the overall economic benefits generated by the infrastructure put in place. In contrast, the normal project financial analysis procedure is found to be restrictive for the PNEAR, since the sanitation structures - family and/or collective - do not generate financial cash-flows allowing for financial analysis.

II- Economic analysis

2.1. Since a financial analysis would not be appropriate, it becomes necessary to gauge the impact of the Sub-programme through an analysis of the overall benefits for the country. Considering its nature and specific objectives, only an economic analysis reflects the benefits generated and their distribution among the parties concerned.

2.2. Assuming a 12 % economic opportunity cost, the analysis indicates an economic NPV of RWF 22 584 million, i.e., an ERR of 27 %, translating into significant impact and benefits for the entire country. The Sub-programme aims at results with a medium and long-term economic rate of return.

2.3. These results take into account, during the lifespan of the structures, of 5-yearly additional investments for renewing pumping equipment (pump and motor) and for network extension as a result of an increase in the population to be served (See table below).

2.4. The other main assumptions retained for economic analysis are as follows: (i) the population served, which is 495,623 persons; (ii) the average size of a Rwandan rural household, which is 6 persons; (iii) the present rate of access to drinking water, which is estimated at 51 %; (iv) the rate of prevalence of water-borne diseases, which is 14 %; (v) school repeat and failure rates, which are 13% and 4%, respectively; (vi) the average cost of primary school attendance, which is RWF 50,000/yr; and lastly, (vii) an inflation rate of 8.9 %.

2.5. The following benefits were thus obtained through the DWSS structures put in place: (i) time *gains*, due to the closeness of the water points to the beneficiaries' households; (ii) improvement in children's school attendance, given their release from water-fetching chores, and (iii) reduction in water-borne diseases.

III- Sensitivity tests

3.1. The tests performed proved that the most significant variables for the economic NPV are: (i) the time saved; (ii) reduction in the school repeat rates; and (iii) reduction in water-borne diseases.

3.2. Sensitivity: The difference between the NPV estimated at Sub-programme appraisal using the basic assumptions, and the NPV obtained through a sensitivity test using the variables mentioned above demonstrates that the basic assumptions adopted for the economic analysis are reasonable. Specifically, the simulation reveals that even in the most unfavourable situations, the economic NPV remains largely positive. It therefore emerges, on the basis of these results, that the Sub-programme yielded substantial economic benefits. (See the table below).

IV- Constraints, lessons and recommendations

4.1- Constraints

4.1.1. Financial institutions involved in the rural areas have developed financial instruments well suited to seasonal credits for farmers or loans for agricultural equipments. On the other hand, the current financial instruments are not well suited to infrastructure financing entailing long amortization periods, such as DWS networks. Furthermore, since private DWS management is quite a recent practice, the private sector has not fully assessed the advantages of investing in the water sector. Moreover, the remuneration is inadequate to cover the operators' risk and not such as would encourage private investment in this type of activity. This is due to: (i) limited predictability of the increase in demand for drinking water; and (ii) the population's possible preference for free untreated water.

4.1.2. Rwanda's sector policy provides for three levels of cost recovery: (i) Level 1 (L1): operating, routine servicing and occasional repair charges; (ii) Level 2 (L2): L1 plus charges for renewal of electro-mechanical installations; and (iii) Level 3 (L3): L2 plus the renewal of the networks and civil engineering equipment.

4.1.3. Extremely few of Rwanda's systems correspond to L2, with none corresponding to L3. Most are still at the level of minimal recovery (L1). Consequently, the receipts are generally not sufficient to ensure long-term viability, and the Government must cover not only the initial investment, but should also renew equipment and undertake major repair and rehabilitation. However, Rwanda is not an exception in this area in Africa, since cost recovery from beneficiaries is exclusively limited to Level 2 all across African rural areas.

4.2- Lessons

4.2.1. Private sector involvement in the rural DWS is in keeping with the Government's general policy, which seeks withdrawal from production of goods and services in order to devote attention to strategic orientations for economic operators. The new Water policy is a true reflection of this general policy.

4.2.2. Water supply management by private operators is facilitated by an improvement in the households' capacity to pay. This has been the case, with the improved living standards. That also explains the considerable increase in the number of individual connections in commercial centres and secondary towns, where management is transferred to private operators.

4.3- Recommendations

4.3.1. Mobilize the section of the population still using non-drinking water sources and further sensitize them to the fact that it is in their interest to consume treated water as a means of reducing water-borne diseases.

4.3.2. *Increase sensitization of private operators* to establish DWS structures through the adoption of incentive measures to further encourage private operators to invest in rural DWS infrastructure for producing and marketing water.

4.3.3. *Extend contract duration* to over 5 years, to enable amortization of investments made by the operator.

4.3.4. *Fix the fee to be paid to the district, in accordance with the volume of water sold; and provide details of what the fees cover.*

CALCULATION OF ECONOMIC NET PRESENT VALUE

Year	Population served	Investments	* Recurrent Costs	* Direct Benefits	Education Benefits	Health Benefits
2009	0	0	0	0	0	0
2010	495 623	-7 014	-2 100	7 089	1 162	567
2011	600 000	0	-5 459	7 992	1 192	607
2012	612 000	0	-6 317	8 937	1 223	649
2013	624 240	0	-6 282	9 082	1 255	693
2014	636 725	0	-7 893	9 229	1 287	739
2015	649 459	-2177	-6 637	9 377	1 321	787
2016	662 448	0	-6 608	9 526	1 355	837
2017	675 697	0	-6 722	9 677	1 391	889
2018	689 211	0	-6 979	9 830	1 427	943
2019	702 996	0	-15 665	9 983	1 464	999
2020	717 056	-3134	-7 080	10 138	1 502	1 057
2021	731 397	0	-7 344	10 295	1 541	1 118
2022	746 025	0	-7 332	10 452	1 581	1 181
2023	760 945	0	-7 462	10 611	1 622	1 247
2024	776 164	0	-7 596	10 771	1 664	1 316
2025	791 687	0	-7 732	10 933	1 707	1 387

Economic NPV at 12 %: RWF 22.584 million

***Recurrent costs include:**

- Procurement of inputs and other miscellaneous operating expenses
- Labour costs
- Maintenance costs
- Renewal costs

*** Direct benefits**

include:

- drinking water time gain benefits
- Willingness to pay for drinking water
- Willingness to pay for sanitation
- sanitation time gain benefits

ANNEX 4: LAST PROCUREMENT PLAN

N°	Purpose of Procurement	Contract		Suppliers	Nationality	procurement Mode
		Amount	Currency			
A.1	A. WORKS - Supply and completion works for the primary pipe, Mutobo Basse, Lava region	RWF 3.824.590.747	60 %: USD 40 %: RWF	CGC	Chinese	ICB
A.2	- Rehabilitation of the MUTERA DWS in the Lava region	RWF 600.978.293	RWF	EMA	Rwandan	NCB
A.3	- Supply and works on 4 medium drinking water supply systems	1.285.752.023	60 %: RWF 40 %: Euros	EGC	Rwandan	ICB
A.4	- Community works for the development of 1,044 sources, ... public latrines, ... individual latrines	2.625.000	USD	CDF	Rwandan	Community works
A.5	Refurbishment of buildings of the projects and Programme (2006)	4.327.968	RWF	EGETA	Rwandan	NCB
A.6	Refurbishment of buildings of the projects and programme (2008)	3.159.555	RWF	ECESE	Rwandan	NCB
A.7	Works for the replacement of drinking water pipes upstream from Mutobo Basse	45.444.280	RWF	CGC	Chinese	Negotiated contract
A.8	Pilot project for the use of rainwater, collection of used water for Biogas and composting of solid wastes	303.856	USD	KIST	Rwandan	Negotiated contract

	B. SERVICES					
B.1	- Engineering control and oversight of major supplies/DWS	474.120 124.590.000	Euros RWF	IGIP	German	SBQ
B.2	- Control and oversight of MUTERA DWS rehabilitation works	18.773.800	RWF	GEOTOP	Rwandan	NCB
B.3	- Engineering, control and oversight of works of 4 medium DWS.	80.266.883	RWF	GEOTOP	Rwandan	SBQC
B.4	- Consultancy service for the establishment of a Monitoring/Evaluation system and Water sector management and national inventory of the DWSS	543.500	USD	AAW	Egyptian	SBQ
N°	Purpose of procurement	Contract		Suppliers	Nationality	Mode of procurement
		Amount	Currency			
B.5	- Study and development of drinking water supply and sanitation infrastructure in rural areas	24.800	USD	SNANE Mohamed Habib	Rwandan	C.I
B.6	- Services for training, education in hygiene, outreach work and sensitization for PNEAR	436.670,75	Euro	ISADE/ECU/ ADHR	Senegalese/ Rwandan/Rw andan	SBQC
B.8	Oversight of works for the execution of the Muhingo in the Lava region	10.624.446	RWF	SEMUCYO RUTSILI	Rwandan	C.I
B.9	Studies to upgrade technical dossiers, control and oversight of works for the Project “DWS 8 former municipalities around the city of Kigali”	36.955.535 & 6.438.965/month	RWF	Sammy. UB Consult	Rwandan	NCB
B.10	- Audit of PNEAR accounts (2005-2007)	17.400.000	RWF	ABC	Rwandan	SBMCC
B.11	- Audit of PNEAR accounts (2008-2009)	10.000.000	RWF	RUMA CPA	Rwandan	SBMCC

C. GOODS						
C.1	Supply of computer equipment for PNEAR	20.938.532	RWF	Cool Service	Rwandan	NCB
C.2	Supply of office equipment for PNEAR	8.943.833	RWF	Cool Service	Rwandan	NCB
C.3	Supply and installation of computer network for PNEAR	10.710.420	RWF	Computer Point	Rwandan	NCB
C.4	Supply of 3 servers	10.485.000	RWF	Jireh Computer Tools	Rwandan	NCB
C.5	Supply of 5 Laptop computers, 1 digital camera and 1 camcorder for PNEAR	13.773.000	RWF	HIGH TECH	Rwandan	RCB

ANNEX 5: LIST OF SUPPORTING DOCUMENTS

N° Doc	Title of document	Sources
1	Project appraisal report,	ADF
2	Loan and grant agreement	ADF
3	Disbursement tables	UCP/ADF
4	Activity reports	UCP/ADF
5	Audit reports	UCP/ADF
6	Memoranda of Bank missions	UCP/ADF

DESIGN AND PHYSICAL EXECUTION

CONTEXT OF THE DESIGN AND EXECUTION OF THE SUB-PROGRAMME

a) Design

The national programme (PNEAR), of which this sub-programme constitutes an integral part, was designed in keeping with the Rwandan Government's policy in consultation with the sector stakeholders, especially the populations, decentralized State finance institutions, donors, NGOs and other stakeholders present in the country. This was also consistent with the Bank's DWSS Initiative in rural areas. Its design was generally based on the following strategies:

Mobilization. Designed in the spirit of the Bank's Initiative, the programme aimed at initiating and facilitating the intervention of donors, NGOs, the private sector and other stakeholders in rural water and sanitation sector. It was not a pilot programme, nor was it exclusively funded by the Bank. Rather, it was a national investment framework needed to attain the objectives of Government's Vision 2020. It entailed the proposal, in conjunction with the stakeholders, of a platform for execution of rural DWSS projects, enabling all parties to contribute significantly, effectively and rapidly to the realization of these objectives.

Planning and acceleration. Considering the gaps noted with regard to knowledge of the country's water resources and in the survey of existing infrastructure, this Sub-programme has led to the establishment of a database on the existing infrastructure (SIG), the conduct of studies on Water Plans for 70 districts and hydro-geological exploration in the Bugesera, Kibungo and Umutara zones, making greater use of the underground water resources. Detailed technical studies for preparing the second phase of PNEAR execution were also conducted under this Sub-programme. Similarly, at decentralized level, with the assistance of support organizations, the Sub-programme laid down accelerated mechanisms for the preparation, appraisal and implementation of community projects.

Involvement. The Sub-programme was implemented based on the decentralization scheme prepared by the Rwandan Government. It promoted the demand approach and involvement of the grassroots communities in the design, preparation and implementation of the projects. All the sub-projects identified for financing by the Sub-programme were previously included in the Community Development Plan (CDP) drawn up by the district, and established by the beneficiaries with the assistance of the decentralized State technical services. This approach is the one adopted in the community development policy prepared in November 2001.

Simplification. Preference was given to appropriate technologies broadly agreed upon by the beneficiaries and simple systems largely based on the country's experience. Special emphasis was consequently laid on the development of sources, small water supply systems, and simple sanitation systems (such as VIP or ECOSAN latrines). These projects were carried out by the "Ubudehe" approach used for traditional community works. A large water supply system was however put in place in the Lava region (at Mutobo Basse), which was affected by an extreme scarcity of water sources.

b) Physical execution

Activities	Infrastructure			Achievement rate
	Type	Expected	Actual	
a) DWS works	Water supply systems	Number: 5 (1 Large water supply system and 4 medium water supply systems)	Number: 6 (1 large water supply system and 5 medium water supply systems)	120 %
	Developed sources	1 000	1 084	108 %
b) Sanitation works	Family latrines	2 020	2 120	105 %
	Public latrine blocks	6	25	417 %
	Rainwater collection reservoirs	23	25	109 %
	Biogas	2	2	100 %
	Composter	2	2	

Other activities	Type	Expected	Actual	Achievement rate
c) Studies	Technical studies	i. Update of 4 DWS studies ii. Studies on secondary distribution networks in the Lava region. iii. Establishment of a DWSS resource and infrastructure management and monitoring system iv. Studies and TD of six former districts v. Environmental and social impact studies vi. Study on the standardization of DWSS structures. vii. Audits	7	100 %
d) Capacity building	i) Training of sector officials and stakeholders	329	358	109 %.
	ii) Production of training modules	7	7	100 %
	iii) Training of masons	0	78	
	iv) Training of standpipe operators	0	59	

Impact in relation to objectives

Component	Population	
	Expected	Served
a) Drinking water	270 000	495 623
b) Sanitation	12 000	16 200

PROJECT IMPACT ON RURAL DEVELOPMENT

Given its importance for health, its size and multiple positive environmental and social impacts, the Sub-programme offered significant environmental benefits for the people. The protection of the intervention area was strengthened through the implementation of measures such as systematic reforestation of catchment areas located by the water collection sources of and introduction of periodic analyses of the quality of water of developed water sources. Furthermore, the availability and proximity of water, the autonomous public sanitation systems, and the education and hygiene campaigns conducted are resulting in: (i) greater attention paid to hygiene and cleanliness in the domestic living environment; and (ii) increased involvement of women and children in improving cleanliness and development of inhabited village areas and surrounding areas (cleaning and maintenance, creation of nurseries, windbreak plantations, development of school grounds, etc).

Climate Change. For many years, Rwanda has experienced external phenomena such as: (i) heavy rains causing floods; (ii) climatic variables, notably El Nino and La Nina; and (iii) drought with a 16% rainfall deficit. These phenomena have multiple repercussions, including on water resources, such as reduced river flows and lake levels and drying up of some water sources especially in the East, South-East and parts of the central plateau. The Sub-programme effectively addressed these effects through construction of storm water harvesting reservoirs in water-stress areas. Since the water sector is the most critical sector because of its impact on the other sectors, the Sub-programme approach fits perfectly into the priority framework for integrated management of water resources (IWRM) promoted by the National Adaptation Programme of Action.

Social Aspects. The populations' permanent access to water (495 623 persons) and household and public sanitation facilities (16 200), will positively impact on their hygiene and health conditions and help curb the common water-borne diseases such as malaria, dysenteries, skin conditions and cholera. The positive health impacts will result, in the medium term, in savings in health expenses, improved productivity and, consequently, a significant reduction in poverty. Moreover, social cohesion will be strengthened through the installation of the large pipe-water scheme of Matobo Basse that will pass through several districts, bringing the communities concerned to join user associations. The Ubudéhé community approach, which promotes remunerated employment of beneficiaries in the implementation of some simple community schemes such as developed water sources and latrines, will also raise incomes and significantly reduce poverty. Besides, the various training programmes for masons, standpipe repairers and private operators will help them to acquire the requisite skills to earn a living from similar projects. Lastly, the design of the proposed latrines will be adapted for use by disabled persons.

Gender Aspects. One of the major impacts of the sub-programme for women and children consists in the time saved; about 3 hours saved in water fetching, given the proximity of water collection points to dwellings. Furthermore, the installation of laundry tubs at 1000 developed water sources will save women from the chore of carrying water for laundry. All this will lead to greater involvement of women in income-generating activities, particularly market gardening, and to improved school attendance and performance, particularly for the girls, whose success rate is very low compared to boys (41% against 59% at primary level). Furthermore, the approach adopted, geared towards gender equality and women's employment in water management, will help to address the specific constraints that hamper women's integration as private water network operators. The sub-programme will provide steady employment to women, notably as standpipe repairers (recruitment in the user' associations created) and private operators for the running and maintenance of the structures.

Furthermore, the sub-programme will enhance the opportunities provided by the Government through the Ministry of Gender and Family Affairs (MIGEPROF), specifically the National Women's Council, which has a network of women's associations countrywide. Indeed, the outreach and sensitization activities that will accompany the physical outputs will boost empowerment of rural women through water management, particularly those residing in the sub-programme areas: (i) the active involvement of women in outreach activities for water users' associations (WUAs) and their training in the management and maintenance of water points; (ii) sensitization activities for women's organizations in the selected sites in order to stimulate their members' candidacy for managerial functions in the DWS networks and standpipe operations; (iii) advocacy with sector and district authorities to target women under the sub-programme; and lastly (iv) close involvement in the awareness campaigns organized by MIGEPROF which has sound experience in that field. Furthermore, it should be noted that the availability of water will contribute to creating income-generating activities, such as market gardening, which is primarily a female activity in rural areas.

FINANCIAL EXECUTION

Source of finance	Amount allocated (UA million)	Amount committed (UA million)	Disbursement (UA million)	%
1. Grant	9,00	5.558 ⁵	5.384	96.87
2. Loan	4,00	3.97	3.97	99.25 ⁶
3. Counterpart	4.18 (*)	4.18	3.86	92.34
Average rate of disbursement				96.15

(*): This amount does not take account of the additional Government contribution of UA 1,260,760. This last amount was used in financing the following projects: (i) DWS works in the Mutera district for an amount of UA 800,012, allowing for supply to an additional 38,562 persons; (ii) Final designs of the districts of Ngororero, Gakenke and Gicumbi, and the training of 60 standpipe operators at a cost of UA 396,532; and (iii) hiring of 10 engineers to develop 1,084 sources and mobilization of the populations concerned for an amount of UA 64,216.

Audit and accounts management

Since 2005, the audit reports are regularly prepared and transmitted to the Bank for its opinion. They have all been approved by the Bank, sometimes with a few comments for improving bookkeeping. In that regard, the recruitment of the Accountant in accordance with the audit recommendation which was reiterated by the Memorandum of April 2007, considerably improved project accounts management and led to respect of the rules. The 2009 audit to close the project will be conducted in March 2010 by an audit firm already recruited.

⁵ This amount corresponds to the UA 9 million ADF grant minus the amount of UA 3,442 million re-allocated to the Ministry of Agriculture (MINAGRI) during the Food Crisis, based on the joint agreement concluded in 2008 between the Bank and the Ministry of Finance and Economic Planning (MINECOFIN).

⁶ The average disbursement rates for ADF resources is 98.06 %.