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AFRICAN DEVELOPMENT BANK GROUP

NIGER NATIONAL RURAL DRINKING WATER SUPPLY AND SANITATION PROGRAMME (NRDWSSP) (PHASE II: SECOND SUB-PROGRAMME - 2011-2014)

APPRAISAL REPORT

Date: September 2011

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CURRENCY EQUIVALENTS

(Rate in May 2011)

Currency Unit	:	CFAF
1 UA	:	CFAF 715.531
1 UA	:	EUR 1.09082

WEIGHTS AND MEASURES

Metric system

FISCAL YEAR

1 January – 31 December

LIST OF ABBREVIATIONS AND ACRONYMS

ABEDA	Arab Bank for Economic Development in Africa
ADF	African Development Fund
ADPRSP	Accelerated Development and Poverty Reduction Strategy Paper
AEMV	Multi-Village Water Supply
AFD	French Development Agency
DWSC	Drinking Water Supply Complex
DWSS	Drinking Water Supply and Sanitation
FAO	Food and Agriculture Organization
GTZ	German Technical Cooperation
IFAD	International Fund for Agricultural Development
IRH-SIGNER	Water Resources Inventory-Geographic Information System of Niger
IWRM	Integrated Water Resources Management
MHE	Ministry of Water Resources and the Environment
MPATDC	Ministry of Planning, Territorial Planning and Community Development
NEPAD	New Partnership for Africa's Development
NGO	Non-Governmental Organization
PCU	Programme Coordination Unit
PDC	Community Development Plan
NDWSSP	National Drinking Water Supply and Sanitation Programme
RBCSP	Results-Based Country Strategy Paper
RDS	Rural Development Strategy
SME	Small and Medium-size Enterprises
UN	United Nations
WPMC	Water Point Management Committee
WUA	Water Users' Association



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SUB-PROGRAMME INFORMATION SHEET

Client Information

BORROWER	:	Government of Niger
EXECUTING AGENCY	:	Ministry of Water Resources and the Environment (MHE) P.O. Box: 257, Niamey - NIGER FAX: (227) 20 72 40 15 TEL: (227) 20 72 38 89 E-mail: meelcd@yahoo.fr

Financing Plan

Source	Amount (UA)	Instrument
ADF	16.000 million	ADF Loan
Initiative Trust Fund	3.670 million ¹	RWSSI Trust Fund Grant
French Development Agency (AFD)	11.000 million	AFD
Beneficiaries	0.995 million	-
GVT	2.404 million	-
TOTAL COST	34.069 million	-

Duration – Key Stages (expected)

Approval of concept note	May 2011
Project approval	September 2011
Effectiveness	November 2011
Last disbursement	December, 2015
Completion	December, 2014

¹ This RWSSI Trust Fund grant amounts to EUR 4 million at the exchange rate for May 2011.

Sub-programme Executive Summary

1. This Rural Drinking Water Supply and Sanitation (RWSS) Sub-programme covers all the 11 departments of the two regions concerned (Dosso and Tillabéry). These regions are among the poorest in the country, with 70% of their populations living below the poverty line - a higher proportion than the 60% national average. The main outputs of the sub-programme expected at the end of the scheduled 36 months of implementation are: (i) 9,881 new household latrines for the most vulnerable families; (ii) 9,881 laundry tubs and hand washing devices; (iii) 295 new multi-compartment latrines, attached to village public infrastructure (schools, health centres and other public places); (iv) 99 drinking water supply (DWS) structures and systems; (v) 297 new boreholes fitted with hand pumps; (vi) 130 boreholes fitted with hand pumps, rehabilitated; (vii) 300 masons trained in latrine construction techniques; (viii) 300 female outreach workers and 150 school teachers trained in hygiene and prevention in villages; (ix) 99 Water Users' Associations (WUAs), and 427 Water Points Management Committees (WPMCs) set up, operated and trained in the management and maintenance of water points; (x) about 30 private operators supported and trained in the operation and maintenance of complex DWS systems; (xi) 50 artisan borehole repairers trained and provided with repair equipment under pumping equipment contracts; and (xii) training, outreach and sensitization campaigns conducted in nearly 526 localities of the two regions of the sub-programme.

2. The cost estimate of the sub-programme, exclusive of tax, is UA 34.069 million, including provisions for physical contingencies and annual price escalation. This amount is co-financed to the tune of 58% by the Bank, 32% by the French Development Agency (AFD), 7% by the Government, and 3% as contribution from beneficiaries. The construction of structures and implementation of activities of the sub-programme will help to meet the water and sanitation infrastructure needs of about 465,000 people in the two regions, including nearly 355,000 persons directly concerned with drinking water supply, and 110,000 with household and public sanitation.

3. Given the nature of the structures put in place, the sub-programme will, in particular: (i) improve the availability and quality of drinking water; (ii) ease the burden of water-fetching chores, particularly for women; (iii) reduce water costs; (iv) reduce the prevalence of water-borne diseases; and (v) promote water-related income-generating activities. Furthermore, the community labour approach recommended for the construction of household latrines will enable local craftsmen to fully participate in building the facilities.

4. While the implementation of this sub-programme forms part of an ongoing consultative process with the country's major donors in the water sector, it also constitutes the second phase of the Bank's Rural Drinking Water Supply and Sanitation Initiative in Niger. Furthermore, it is part and parcel of the National Rural Drinking Water Supply and Sanitation Programme (NRDWSSP) for the year 2020. The national monitoring-evaluation system, whose sanitation-related module the Bank will help to put in place, will analyze the performance of this sub-programme and draw the relevant lessons for future operations of the Bank and other donors of the sector.

RESULTS-BASED LOGICAL FRAMEWORK

COUNTRY AND PROJECT NAME:	Niger – Second Rural Water Supply and Sanitation Sub-Programme in Dosso and Tillabéry regions
PROJECT OBJECTIVE:	Sustainably improve the populations’ drinking water supply, sanitation, hygiene and health

OUTCOME CHAIN	PERFORMANCE INDICATORS			MEANS OF VERIFICATION	RISKS/ MITIGATION MEASURES
	Indicator (including ISC)	Baseline Situation	Target		
IMPACT Improved living conditions and socio-economic health of the rural populations	1) Average rate of access to drinking water 2) Average rate of access to sanitation 3) Prevalence of waterborne diseases 4) Infant and child mortality rate 5) Poverty rate in the two regions	1) 54% in 2010 2) 7% in 2010 3) 21% in 2010 4) 198‰ 5) 70%	1) 62% in 2014 2) 10% in 2014 3) 15% in 2014 4) 158‰ in 2014 5) 56% in 2014	<u>Sources:</u> Reports of MHE and RDS Secretariat <u>Method:</u> National surveys	<u>Risks</u> Capacity of local and village communities to ensure sustainability of the service <u>Mitigation measures</u> Operation and maintenance of structures thanks to strengthening of the capacities of local communities, users’ associations and private operators
EFFECTS Improved access to DWSS; Positive behavioural changes achieved;	- Population to be supplied with drinking water - Population to be provided access to sanitation - Average daily consumption per person.		- 355,000 persons for drinking water; - 110,000 for sanitation - 20 litres per person per day	<u>Sources:</u> Reports of MHE, RDS Secretariat and National Statistics	
OUTPUTS Component A 1) DWSS infrastructure put in place; 2) Populations sensitized and trained	1.1) Boreholes drilled; 1.2) Boreholes fitted with HPP 1.3) DWS systems built; 1.4) Household latrines built; 1.5) Public latrines built; 2.1) WUAs formed; 2.2) WPMCs formed; 2.3) Private operators trained; 2.4) Masons trained; 2.5) Female outreach workers trained; 2.6) Teachers trained		1.1) 396 boreholes drilled; 1.2) 297 boreholes equipped; 1.3) 99 mini DWS systems built; 1.4) 9,881 household latrines built; 1.5) 295 public latrines built. 2.1) 99 WUAs; 2.2) 427 WPMCs; 2.3) 99 private operators; 2.4) 150 masons trained 2.5) 300 female outreach workers; 2.6) 150 teachers.	<u>Sources:</u> MHE progress reports. Works acceptance reports Progress reports of NGOs and Associations Bank supervision reports. Mid-term review. Audit reports. Training reports	<u>Risks</u> Failure of beneficiaries to contribute; <u>Mitigation measures</u> Contribution levels acceptable and consistent with current experiments. <u>Risks</u> Low capacity of private delegates; <u>Mitigation measures</u> The project provides for training and support of private delegates and users’ associations
OUTPUTS Component B: 3) Support for stakeholders involved in the sector. Component C: 4) Sub-programme management	3.1) Effective support for central and regional structures of the project. 4) Accounts auditing. Contracts signed and project monitoring ensured				

KEY ACTIVITIES	COMPONENTS	RESOURCES
	<p>Component A: Development of infrastructure to provide access to drinking water and sanitation (95.53%);</p> <p>Component B: Institutional support (2.80%);</p> <p>Component C: Project management (1.67%).</p>	<p>Sources of financing:</p> <p>ADF Loan: UA 16,000,000</p> <p>RWSSI-TF: UA 3,580,000</p> <p>AFD: UA 11,000,000</p> <p>Beneficiaries: UA 995,000</p> <p>Government: UA 2,404,000</p> <p>TOTAL : UA 34,069,000</p>

NIGER

NATIONAL RURAL DRINKING WATER SUPPLY AND SANITATION PROGRAMME (NRDWSSP)

(PHASE II: SECOND SUB-PROGRAMME - 2011-2014) APPRAISAL REPORT

Management hereby submits this report concerning the proposal of an ADF loan of UA 16 million and a RWSS Initiative Trust Fund grant of UA 3.67 million from the Bank to Niger to finance Phase II of the NDWSSP sub-programme.

I. Strategic Orientation and Justification

1.1. Sub-Programme Linkages with Country Strategy and Objectives

1.1.1 This sub-programme is fully consistent with the Government's sector policy. Indeed, in addition to being an integral part of the national programme (NDWSSP), it is also in line with: (i) Niger's rural development vision which, within an integrated water resource management (IWRM) framework, seeks to provide access to drinking water for the maximum rural population by 2020; (ii) the new orientations of the Government's sector policy that seeks optimal use of water resources and adequate access to water and sanitation services for all; and (iii) the current Accelerated Development and Poverty Reduction Strategy Paper – ADPRSP (2008 – 2012) – of which Pillar 5 gives priority to access by the population to adequate water and sanitation services, as well as to the use of water to promote income-generating activities and reduce poverty.

1.2. Justification for Bank Intervention

Apart from being in line with the ADPRSP, the RBCSP extended to 2012, is fully consistent with the Bank's Vision, particularly its Strategic Plan. Consequently, its primary objective is to support the Government in the fight against poverty, under the following two pillars: **(I) Pillar I: Support the development of rural areas through mobilization of water resources.** This is fully consistent with the Bank's Rural Water Supply and Sanitation Initiative (RWSSI). **(II) Pillar II: Promote the reinforcement of infrastructures.** The formulation of these pillars shows that this sub-programme is fully consistent with the country's priorities. In addition, the satisfactory completion of the ongoing first RWSS sub-programme is further encouragement for the Bank to implement this project so as to consolidate its outputs. Indeed, all the DWS structures of Phase I (220 of them), have been completed and currently allow access to drinking water for nearly 245,000 people in three rural regions of the country. The 4,860 latrines under the sanitation component of this phase, currently being finalized, should provide access to 50,000 people. The current Phase II will supplement the efforts made so far, and other phases are envisaged to continue assisting the country in implementing the NDWSSP up to 2020.

1.3 Aid Coordination

Stakeholders – Annual Public Expenditure (average) **			
Government	Donors		
18%	ADB, ADF*, EU, JICA, DANIDA, World Bank/WSP, IDB, ABEDA, Swiss Cooperation	82%	
Level of Aid Coordination			
Existence of thematic working groups		Yes	
Existence of an overall sector programme		Yes	
Role of ADB in aid coordination		Active	
(*) : AFD (the sub-programme's co-financier) currently is the lead donor of the sector.			

Comments on Aid Coordination

1.3.1 The adherence of the major donors² of the sector to the Bank's RWSS Initiative approach is a major factor of success. Furthermore, the Government has closely involved all the donors in the country in designing the National RWSS Programme for 2020 (NRDWSSP – 2020). Several meetings were held in which NGOs operating in the sector also participated. All the participants adhered not only to the principles, but also to the provisions and objectives of NRDWSSP. In this regard, it should be noted that the ADF, which is co-financing this sub-programme, is currently the lead donor in the water and sanitation sector in Niger.

II. Description of the Sub-Programme

2.1. Components of the Sub-programme

2.1.1 The sub-programme will comprise the following components:

Number	Name of Component	Cost Estimate in UA million and %	Description of Components
A	Development of DWSS infrastructure.	32.545 - (95.53%)	- Construction of water and sanitation structures and support engineering.
B	Institutional support for intervention structures of the sub-programme.	0.955 - (2.80%)	- Support for training of staff and artisan repairers and private delegates.
C	Programme management	0.569 - (1.67%)	- Operating costs of PCU and audit.

The sub-programme, which is classified under environmental category II, does not belong to any of the five project categories defined by the relevant Presidential Directive.

² Key donors of the water and sanitation sector in Niger: ADF (lead), ADB, World Bank, European Union, IDB, ABEDA, IFAD, UNICEF, UNDP, as well as the Japanese, Swiss, Danish and Belgian Cooperation Agencies.

2.2 *Technical Options Selected*

2.2.1 The technical design of the present sub-programme is based on: (i) the referential of technical supply options selected for the NDWSSP; (ii) a nationwide core planning to prepare the NDWSSP investment plan for achieving the MDGs by 2015 and the objectives by the country by 2020; and (iii) the programming of works, which involves the participation and request of users and local elected representatives, in consultation with the Government's technical services.

2.2.2 For drinking water, the referential or "technical package" of water supply options include: (i) connection of the requesting locality to a multi-village water supply network (AEMV) to be constructed, with a pumping system and reservoirs and networks of variable capacity depending on the number and size of localities to be served; (ii) connection of the requesting locality to a gravity flow multi-village water supply network (AEMV) to be constructed from a water source located on a crest; (iii) connection of the locality to an existing network by extending the said network to the village to be supplied; and (iv) supply of water to the locality from a borehole fitted with a hand pump in areas where surface water is scarce and where the rocky geological context allows for only low-flow boreholes.

2.2.3 The criteria for selecting a technical option for a locality take into account: (i) the needs expressed at the grassroots level of the community itself (demand approach); (ii) the current situation of its access to water; (iii) its projected population by 2015 and, beyond, by 2020; (iv) the level of its adherence to the current system of private management of water facilities to ensure sustainability of the operation; (v) its location in relation to the radius of influence of an existing water supply network; and (vi) the proximity of other similar localities with which it could form a sufficient concentration area to justify a new AEMV. The connection of a locality to an existing DWS system is the first option explored, with the other options being assessed only where a connection by extension of the network is not technically possible or justified.

2.2.4 With respect to household sanitation, the referential or "technical package" of sanitation options comprise: (i) a dual-pit VIP latrine or hand flush toilet (TCM); (ii) a laundry tub with a soakaway; and (iii) a hand-wash basin. These are standard low-cost facilities that provide reasonable sustainability and hygiene guarantees.

2.2.5 As regards to community sanitation, the public lavatory model is made up of a standard multiple cubicle structure (5 to 6 cubicles) with hand flush toilet (TCM) and separate male-female sections, including urinals and 2 hand-wash points. A single standard plan will be used for all the facilities of the sub-programme.

2.3. *Type of Sub-programme*

2.3.1 Budget support does not yet exist for this sector, at least not as an instrument for financing the water and sanitation sector in Niger, nor is there a sectoral approach per se. However, the Government, in conjunction with technical partners and financiers, is exploring ways of moving towards that approach. Consequently, this approach could be applied for the next implementation phases of the national programme (NDWSSP). This sub-programme will use the mechanisms already existing in the country that are being used for the ongoing operations.

2.4 *Sub-programme Cost and Financing Arrangements*

2.4.1 The cost estimate of the sub-programme, exclusive of tax, is UA 34.069 million, comprising 17.845 million in foreign exchange (52 %) and 16.224 million in local currency

(48%). It includes provisions for physical contingencies (10%) and annual price escalation (3% for foreign currency and 5% for local currency). The sub-programme will be financed by: (i) an ADF loan of UA 16 million: 47% ; (ii) an RWSSI Trust Fund grant of UA 3.670 million (equivalent to EUR 4 million at May 2011 rate of UA 1 = EUR 1.09082): 11%; (iii) the French Development Agency (AFD) in the amount of UA 11 million: 32% ; (iv) the Government to the tune of UA 2.404 million: 7%; and (iv) the beneficiary communities to the tune of UA 0.995 million: 3%. The detailed costs by component are presented in Annex A.1.7.

Table 2.1: Sources of Finance

Sources of Finance	UA Million			Total %
	L.C.	F.E.	Total	
ADF Loan	4.790	11.210	16.000	47
RWSSI Trust Fund Grant	3.670	0.000	3.670 ³	11
AFD	4.365	6.635	11.000	32
Beneficiaries	0.995	-	0.995	3
Government	2.404	-	2.404	7
TOTAL COST OF SUB-PROGRAMME	16.224	17.845	34.069	100.000

Table 2.2: Sub-programme Costs by Component

Components	CFAF Million			UA Million		
	L.C.	F.E.	Total	L.C.	F.E.	Total
A. Basis Infrastructure Development						
Sanitation Works	4,933.350	-	4,933.350	6.895	-	6.895
Drilling Works	1,001.880	4,007.520	5,009.400	1.400	5.601	7.001
DWS Works, including extension of networks	1,207.800	4,831.200	6,039.000	1.688	6.752	8.440
Drainage equipment and Rehabilitation of Boreholes	309.110	1,236.440	1,545.550	0.432	1.728	2.160
Studies, Supervision and Control of Works	290.615	660.923	951.539	0.406	0.924	1.330
Campaign for DWS Structures (Tillabéry - Dosso)	370.814	-	370.814	0.518	-	0.518
IEC Campaign for Sanitation Works	803.043	-	803.043	1.122	-	1.122
Sub-total Development of Basic Infrastructure	8,916.612	10,736.083	19,652.696	12.462	15.004	27.466
B. Support for Local Structures of the Sub-programme						
- Support for the two Regional Divisions of the Sub-programme	-	3.000	3.000	-	0.004	0.004
- Support for MHE Central Departments involved in implementation of the Sub-programme	405.381	212.484	617.866	0.567	0.297	0.864
Sub-total Institutional Support	405.381	215.484	620.866	0.567	0.301	0.868
C. Sub-Programme Management						
Sub-programme Coordination Unit (PCU)	219.100	60,100	279.200	0.306	0.084	0.390
Auditing of Annual Accounts and Procedures Manual	75.000	-	75.000	0.105	-	0.105
Sub-total Sub-Programme Management	294.100	60.100	354.200	0.411	0.084	0.495
Total Base Cost	9,616.094	11,011.668	20,627.762	13.439	15.390	28.829
Physical Contingencies	857.092	1,063.916	1,921.008	1.198	1.487	2.685
Price Escalation	1,135.158	693.179	1,828.337	1.586	0.969	2.555
TOTAL COST OF SUB-PROGRAMME	11,608.344	12,768.763	24,377.107	16.223	17.846	34.069

³ This amount is equivalent to EUR 4 million at May 2011 rate of UA 1 = EUR 1.09082.

Table 2.3: Sub-Programme Cost by Expenditure Category

Expenditure Categories	CFAF Million			UA Million		
	L.C.	F.E.	Total	L.C.	F.E.	Total
A. GOODS	225.910	1,058.740	1,284.650	0.316	1.480	1.795
B.WORKS	7,235.330	9,207.920	16,443.250	10.112	12.869	22.980
C.SERVICES	1,941.854	745.008	2,686.862	2.714	1.041	3.755
D.OPERATING COSTS	213.000	-	213.000	0.98	-	0.298
Total Base Cost	9,616.094	11,011.668	20,627.762	13.439	15.390	28.829
Physical Contingencies	857.092	1,063.916	1,921.008	1.198	1.487	2.685
Provision for Price Escalation	1,135.158	693.179	1,828.337	1.586	0.969	2.555
TOTAL COST OF SUB-PROGRAMME	11,608.344	12,768.763	24377.107	16.223	17.846	34.069

Table 2.4: Expenditure Schedule by Component

Components	2012	2013	2014	Total
A. Basic Infrastructure Development				
Sanitation Works	0.554	4.470	3.416	8.440
Drilling Works	-	4.123	4.145	8.267
DWS Works, including extension of networks	-	5.044	4.919	9.964
Drainage Equipment and Rehabilitation of Boreholes	-	2.210	0.307	2.517
Studies, Supervision and Control of Works	0.500	0.612	0.360	1.471
Campaign for DWS Works (Tillabéry - Dosso)	0.139	0.246	0.214	0.599
IEC Campaign for Sanitation Works	0.389	0.473	0.425	1.287
Sub-total Basic Infrastructure Development	1.582	17.178	13.786	32.545
B. Support to the Local Structures of the Sub-Programme				
- Support to the two Regional Divisions of the Sub-programme	0.005	-	-	0.005
- Support to the MHE Central Departments involved in the implementation of the Sub-programme	0.491	0.387	0.072	0.950
Sub-total Institutional Support	0.496	0.387	0.072	0.955
C. Sub-Programme Management				
Sub-programme Coordination Unit (PCU)	0.212	0.115	0.122	0.450
Annual audit of PCU accounts and the Sub-programme	0.053	0.032	0.034	0.119
Sub-total Sub-Programme Management	0.265	0.147	0.156	0.569
TOTAL COST OF SUB-PROGRAMME	2.343	17.712	14.014	34.069

2.5. Sub-Programme Areas and Beneficiaries

2.5.1 The beneficiaries of the sub-programme are the rural population of 11 departments of the two regions (Tillabéry and Dosso), representing a total of 4.293 million inhabitants out of the country's population of 15 million people. Justification for the choice of these areas lies in the following three major factors: (i) the low rate of access by these communities to DWSS services, especially sanitation which stands at about 7%. Furthermore, the rate of access per DWS network indicates that, as a result of inadequate facilities, about 20% of the population of the two regions still rely on vulnerable water sources of dubious quality for their supply; (ii) the need to enhance the impact of ADB's sector operations in the regions where it was already operating during the first phase of NDWSSP and where significant needs are yet to be met in the area of water and sanitation (Tillabéry). The need to make the Bank's sector operations in these regions more significant is also in line with Government's desire to assign

a well-defined area of the territory to each of the sector donors in order to avoid overlap of the various operations; and lastly (iii) the high priority which the Government accords to the poverty reduction programme in these regions that account for nearly 30% of the country's population (with as high as 70%, against the 60% national average, living below the poverty line). Indeed, the sub-programme's activities in the water and sanitation sector will significantly contribute to the poverty reduction effort by promoting income-generating activities, especially through access to water.

2.6. Participatory Approach to Sub-Programme Identification, Design and Implementation

2.6.1 The participatory approach adopted by the Government, through effective involvement of communities in the design and implementation of the national programme, under the rural development strategy (RDS), will enhance their feeling of ownership, thereby guaranteeing sustainability of the structures. Field trips undertaken during the appraisal mission provided an opportunity to interact with the communities and observe how this approach has taken hold at their level. Furthermore, the decentralization policy adopted by Niger has thus been favourable. Indeed, given that the municipal councils are now responsible for preparing their community developing plans, the communities are gaining experience from this participatory identification of their needs, the search for solutions to their problems and in the area of planning. Thus, they will participate in: (i) validation of the location of DWS structures; (ii) determination of the beneficiaries of household sanitation facilities (exclusively reserved for the poorest households); (iii) supply of local labour and materials for community works; and (iv) selection of management method for the infrastructure. Lastly, they will be members of the water point monitoring committees (WUAs or WPMCs).

2.7. Consideration of Bank Group Experience and Lessons Learnt in Sub-programme Design

2.7.1 The previous commitments of the Bank in the water and sanitation sector in the country, particularly under Phase 1 of NDWSSP, have made it possible to learn the following major lessons: **(i)** effective management of DWSS infrastructural systems by private operators and public/private partnership in rural areas. This is evidenced by the rapid growth and entrenchment of this type of management of water supply systems in rural areas as opposed to the conventional methods. Indeed, private operators currently manage close to 50% of the water structures, the ultimate goal being to achieve 100%. Consequently, the Government decided to extend this management method to all structures in rural areas. Thus, to improve and consolidate the positive achievements of this approach, the sub-programme will strengthen the management capacity of private sector operators; **(ii)** the use of community labour in the construction of household latrines, involving the effective participation of the beneficiaries; this approach will enhance and strengthen the communities' feeling of ownership of the facilities and their willingness to maintain them in order to ensure better sustainability of services. In view of this conclusive experience, community labour will be used once again under the present sub-programme for the construction of 9,881 household latrines, accounting for 17% of the overall funding; **(iii)** inefficiency due to multiplicity of execution agencies for the various operations included in the national programme by various donors. This is why the Government has decided to set up a single coordinating structure within the Ministry of Water Resources and the Environment (MHE) to ensure greater effectiveness in unifying and harmonizing donor procedures in the sector; and lastly **(iv)** inadequate preparation of some of the projects in the country. However, considering that the

same coordination structure as during Phase I of NRDWSSP (MHE) will be used - which is familiar with Bank procedures and already has standard bidding documents for the various works - implementation delays could be avoided at start-up of this sub-programme. Furthermore, the regional water departments of the municipal councils concerned could save precious time in works implementation by carrying out specific identification of beneficiary villages prior to recruitment of the IEC consultant.

2.8. *Monitoring/Evaluation and Key Performance Indicators*

2.8.1 A national monitoring-evaluation system of the NDWSSP, including easily-quantifiable performance indicators, currently exists for drinking water in the computerized water-resource database (IRH-Signer). This geographic information system, established for the NDWSSP, defines a set of criteria aimed at measuring, at any moment, the rate of access to safe drinking water and the performance of the various sub-programmes implemented under the national programme. This system will be supplemented by a sanitation module set up under this funding. Hence, the entire system will, at the end of each year, help to conduct a review of both the Government and its technical and financial partners (donors and NGOs). In the course of such reviews, an assessment of each stage will be made at the end of each cycle and the relevant adjustments made, if necessary. Mention may be made of the following indicators in the sub-programme areas:

Effectiveness Indicators of Sub-programme Outputs by 2014	
Existence and effectiveness of a water resources monitoring system	
Exist	Existence and effectiveness of a DWSS infrastructure construction monitoring system
Number of water points and water supply schemes established (526)	
Number of adequate sanitation systems provided (10 176)	
Structure breakdown rate which falls from the current rate of 18% to 9%	
Number of water points subjected to drinking water quality analysis (526)	
Rate of access to drinking water increases from 54 to 62% on average in both regions (355,000 persons served)	
Rate of access to household sanitation increases from 7 to 10% (110,000 persons served)	
Number of artisan masons trained (300)	
Number of women trained and integrated into the 526 WUAs and WPMCs created	
Number of female managers among the 526 WUAs and WPMCs created (30%)	
Number of women outreach workers recruited for environmental hygiene (300)	
Number of private borehole operators (30) trained and put in place.	
Effectiveness Indicators of Sub-programme in terms of Impact on Development	
Rate of decline of prevalence of water-borne diseases from the current average threshold of 21% to 15% by 2014	
Reduction of infant mortality rate from the current average level of 198 per thousand to 158 per thousand by 2014	
Number of efficient private operators in the sector, particularly in the maintenance of water structures, numbering at least 30	
Average per capita safe water consumption reaching national standard of 20 litres/day/person by 2014	

III. **Sub-Programme Feasibility**

3.1. *Economic and Financial Performance*

Table 3.1: Key Economic Data

ERR and Economic NPV	(13.41 % ; CFAF 1.720 billion)
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3.1.1 *Economic Analysis:* The economic costs used in calculating the economic rate of return and economic net present value are investment costs, excluding taxes and provision for price escalation, adjusted for appropriate conversion factors for the works. Maintenance costs and other operating expenses have been adjusted accordingly. The key economic benefit considered is the sale by volume of drinking water. There are many other significant benefits

generated by the sub-programme. They are, primarily, direct benefits related to the water and sanitation structures. They represent the value created for the beneficiaries through the provision of new or improved access to safe water and sanitation. Another essential benefit generated by the sub-programme is the saved time resulting from the supply of clean water and evacuation of excreta and wastewater. Also, for the education system, the community and parents, the cost savings related to reduced truancy or decline in class repeat and failure at school are all economic benefits generated by the sub-programme. Lastly, the sub-programme has a positive impact on the health sector. Indeed, the reduced incidence of water-borne diseases and their impact on the health system (the time of the medical staff, immobilization of medical equipment, drugs) and on the communities (medical expenses, time lost during consultations and examinations, related transport costs, lost time from work) generates significant economic benefits for the entire country.

3.1.2 *Sensitivity*. The sensitivity of the project's economic performance was analysed with respect to: (i) 10% increase in investment costs, (ii) 10% increase in operating expenses, and (iii) 10% decrease in the selling price of water. It follows from this analysis that the rate of return and net present value of the project, although sensitive to the variation of these factors, particularly the drop in selling prices, are both still higher than the weighted average cost of capital and the opportunity cost of capital in Niger.

3.2. *Environmental and Social Impact*

3.2.1 *Environmental Aspects*: Given the type of work to be undertaken and its ensuing potential direct and indirect impact, the project is classified under Category 2 in accordance with Bank rules and procedures. Accordingly, an Environmental and Social Management Plan (ESMP) was developed and will be implemented to mitigate the potential adverse impacts. In addition to increasing access to safe water and sanitation services for the people, the most likely positive impacts expected pertain to: (i) creation, during construction works, of temporary jobs for labourers and jobbers; (ii) decrease in the prevalence of waterborne diseases; (iii) improvement of living conditions in households, schools and other public areas through broader access to clean water and sanitation infrastructure. The major negative impacts expected relate to: (i) accelerated decline of groundwater levels due to over-exploitation and climate change; (ii) water quality-related risks; (iii) risk of conflict stemming from the management of water points. Such environmental impacts will be limited, reversible and manageable through the implementation and monitoring of appropriate mitigation measures proposed in the Environmental and Social Management Plan (ESMP).

3.2.2 *Climate Change*: In Niger, climate change occurs through: (i) increased variability and reduced rainfall ranging from 1 to 40%, with an average of 10 to 20% by 2025; (ii) the continued southward shift in isohyets; and (iii) increased frequency of heavy rainfall and droughts. The most likely impacts on groundwater are: (i) decreased groundwater and alluvial aquifer recharge, and (ii) deterioration of water quality. According to the National Strategy and Action Plan for Climate Change and Variability in Niger, the adaptation options considered in the project concern the quantitative and qualitative monitoring of water resources. This translates into: (i) the procurement of hydrological and IT equipment (GIS software and computer hardware) for hydrological monitoring and data management; (ii) the training of 20 officers and 16 workers of the Ministry of Water Resources for the purpose of updating the national computerized IRH-Signer database; and (iii) providing support for the monitoring of water quality.

3.2.3 *Social Aspects:* The permanent access by the population to safe water and household and public sanitation facilities, which has doubled from phase 1 to 10,176, will positively impact on the health and hygiene conditions of 465,000 direct beneficiaries (52% women), and help to curb the prevalence of common waterborne diseases such as malaria, dysenteries, skin diseases and cholera. These positive health impacts will result in savings in health expenses, improved productivity and, consequently, a significant reduction in poverty. Furthermore, social cohesion will be strengthened through the installation of multi-village water supply systems, which include several communities within the same users' association (WUA). The labour-intensive (LI) community service approach, which fosters the involvement of local artisans and beneficiaries in the construction of latrines, will also increase the incomes of the people and significantly reduce poverty. In this regard, it should be noted that the poverty index in both regions of the sub-programme (72% in Tillabéry and 67% in Dosso) is higher than the national average (60%). Besides, the various training programmes for masons, borehole repairers and private operators will help them to acquire the requisite skills to enable them to earn a living in similar projects. Lastly, the design of the proposed latrines will be adapted for use by disabled persons.

3.2.4 *Gender Aspects:* One of the major impacts of the sub-programme for women and children will be the time saved, about 3 hours, in water fetching as a result of proximity of water collection points to homes. All this will foster greater involvement of women in income-generating activities, particularly market gardening, and lead to improved school attendance and performance, particularly for girls. Furthermore, by encouraging gender mainstreaming and promoting women's employment in water management, this approach will help to address the specific constraints limiting women's integration into the private DWS operation trade. Hence, the sub-programme will provide steady employment to women, particularly as borehole repairers (recruitment of at least 30% of women in the 526 users' associations - WUAs and WPMCs) and private operators for the running and maintenance of water supply structures. Furthermore, 300 female outreach workers will be recruited and trained by the consultant in charge of training and sanitation outreach campaigns.

Involuntary Resettlement: The sub-programme activities do not require the involuntary resettlement of the population.

IV. Implementation

4.1. Implementation Arrangements

4.1.1 The General Secretariat of the Ministry of Water Resources and the Environment (MHE) will be responsible for coordinating, within a unified intervention framework, the implementation of the entire national rural programme (NRDWSSP) activities in the sector until completion in 2020. In addition, it will ensure proper planning of activities in the sector by harmonizing DWSS approaches, standards and technologies. However, due to the manifold duties of the General Secretariat under the NRDWSSP, a coordination structure specific to this second sub-programme will be established by the MHE to avoid a repeat of the delays experienced during the implementation of Phase I.

4.1.2 This coordination structure will be headed by an experienced engineer from the MHE, and buttressed by the recruitment of an Administrative and Financial Officer (RAF) with solid relevant experience, to ensure better financial and accounting management of the sub-programme. The RAF will delegate powers to the accountant seconded to him by the

MHE, throughout the project. An engineer will be appointed as focal point for monitoring activities in each of the two regional water resources directorates of the sub-programme. The transmission to the Bank, for prior approval, of the CVs of the above-mentioned coordinator, and two (2) regional focal points at Tillabéry and Dosso, will be a condition precedent to the award of the loan and grant. In any case, the performance of all senior staff in the coordination structure will be measured on the basis of relevant criteria, established at the start-up of the sub-programme. The steering committee, responsible for ensuring consistency and monitoring the proper implementation of the various operations carried out under the national programme (NRDWSSP), will also ensure proper functioning of the coordination structure of this sub-programme. The steering committee already existing under phase I will be extended to this project.

4.2. Implementation Schedule, and Procurement and Disbursement Procedures

4.2.1 *Implementation Schedule:* The sub-programme will be implemented over a period of 36 months starting from January 2012. The works will begin in June 2012 and cover 24 months, and end in May 2014 for the drinking water component, and cover 30 months up to December 2014 for household sanitation. As regards implementation monitoring, the Bank will undertake a launching mission, as well as regular supervision missions, in accordance with the provisions in force. The indicative implementation schedule for the sub-programme is as follows:

<u>Activity</u>	<u>Responsible</u>	<u>Date /Period</u>
Approval of financing	ADF	September 2011
Effectiveness ADF/GVT	December 2011	
Establishment of the coordination team	GVT	December 2011
Preparation and launching of BDs	PCU /FAD	January to June 2012
Signing of contracts PCU	March to June 2012	
Start-up of works PCU	March 2012	
Works PCU/Enterprises	June 2012	
End of sub-programme	PCU	December 2014

4.2.2 *Procurement Procedures:* Goods, works and consultancy services financed from the Bank's resources will be procured in accordance with its *Rules and Procedures for Procurement of Goods and Works (May 2008 edition)* or, as appropriate, *Rules and Procedures for the Use of Consultants (May 2008 edition)*, using the Bank's standard documents. Pending the outcomes of the reform of the national public procurement system currently underway in Niger, it is recommended that during the implementation of this project, the Bank's national shopping rules and procedures should apply. In conjunction with the Financial Resources and Equipment Directorate (DRFM) of MHE, the Project Coordination Unit (PCU) will be responsible for coordinating all project-related procurements. Table A.2.6 shows the various procurement types and procedures.

4.2.3 *Disbursement Procedures:* Under the implementation of the sub-programme, there will be three disbursement methods: the special account, direct payment and, where necessary, reimbursement. Evidence of the opening of two (2) special accounts with a bank acceptable to the ADB will be a condition of the grant. The two accounts to receive the resources of the ADF and RWSSI Trust Fund will be as follows: *(i) the first account opened by the PCU* to receive ADF loan resources to cover the operating costs of the PCU, support

for the regional and central structures of MHE involved in the sub-programme, the preparation of the accounting and financial procedures manual, as well as any other expenses below UA 20,000; *(ii) the second account opened by the PCU* will receive RWSSI Trust Fund resources for the financing of household sanitation works (household latrines and laundry tubs). The direct payment method will be used by the Bank for procurements relating to: (i) drilling works, DWS systems, community sanitation networks and the procurement of hand pump equipment; and (ii) services, studies, works control and supervision, for the conduct of sensitization campaigns (IEC campaigns on clean water and sanitation) and for auditing the sub-programme's accounts. For all other activities, the Bank will use the Special Account method by wire transfer in the two special accounts mentioned above, opened and managed by the PCU.

4.2.4 *Financial Management and Project Auditing*: The project coordinator in MHE will be responsible for the management of financial resources. The project's internal control will be based on the administrative, financial and accounting procedures manual to be prepared by the project and submitted to the Bank for approval. The Project will adopt the private-sector accrual accounting system. The TOMPRO accounting system procured in Phase I of the project will be set following the management principles in the procedures manual. It will facilitate the keeping of the project's general, budget and cost accounts. *Audit*: The keeping of project accounts will be subject to the usual controls by State control structures. The project will be audited annually by independent external auditors recruited on a competitive basis and under the terms of reference agreed upon with the Bank. The coordinator will implement the implementation of audit recommendations, with a view to improving project governance. Payments for audit services will be subject to validation of the audit report by the Bank.

4.3. *Governance*

4.3.1. Since 2007, the Government of Niger has tried to establish a procurement system based on procedures that fully comply with international industry standards. This system predominantly highlights the principles of transparency and economy in the procedures. However, in spite of such progress, much still remains to be achieved, particularly with respect to institutional capacity building.

4.4. *Sustainability*

4.4.1. One of the major factors of sustainability of rural water supply services can be measured by the ever increasing desire of the Government to entrust the management and operation of the water facilities to private operators. This form of management is being adopted for nearly 50% of the rural water structures. And in view of the positive results achieved, the Government has made a firm commitment to extend this type of management to all the water supply structures in the country. Consequently, the country's private sector small- and medium-sized enterprises (SME) are beginning to acquire considerable experience in these kinds of works and services and, by the same token, are being strengthened. Furthermore, the availability of sufficient spare parts for equipment maintenance will sustain the outputs even more. Moreover, the intensity of the works and duration of the National Programme (by 2020) allow for beneficial development of spare parts activities for the sector. Furthermore, the sensitization campaigns planned under the sub-programme and aimed at enhancing the population's sense of ownership of the facilities constructed will also help to strengthen the sustainability factors.

4.4.2 *Cooperation with other donors*: The adherence of major donors⁴ of the sector to the design and adoption of the National RDWSS programme 2020 (NRDWSSP) as a unified framework for all sector-based interventions is also another major factor for the success and sustainability of actions undertaken in the sector. Indeed, all the donors present in the country were closely associated, by the Government, with the preparation of this programme. Several meetings, including NGOs active in the sector, were held. Hence, all participants adhered to the provisions and objectives of the NRDWSSP. In this regard, it should be noted that the AFD, which is currently the major donor in the water and sanitation sector in Niger, is co-financing Phase II alongside the ADB, after having done so for Phase I.

4.5. *Risks and Mitigation Measures*

4.5.1 *Risks*: Three major risks have been identified for the implementation of the sub-programme: (i) the capacity of local authorities to effectively fulfil their responsibilities under the Government's decentralization policy, particularly the effective transfer of management responsibilities for water structures to local authorities, thereby excluding any negative interferences by the Government or its local representatives in the selection of beneficiary populations or in the management of the infrastructure; (ii) failure by the beneficiary population to contribute; and lastly (iii) non-extension of the private management approach to the structures of the sub-programme.

4.5.2 *Mitigation measures*: (i) With regard to the capacity of the local authorities to effectively fulfil their responsibilities under the decentralization policy, while avoiding interference in the selection and management of the equipment, it should be noted that, as in the national programme (NDWSSP), under Component B, the capacities of grassroots communities will be strengthened in planning, management of small water and sanitation schemes, and procurement procedures. Furthermore, the village water users' associations (WUAs and WPMCs) will benefit from training in the management of DWS structures and sensitization on social mobilization and hygiene education, (ii) With regard to the contribution of beneficiaries, the levels proposed are acceptable in view of the past and ongoing experiences in the sector, averaging 2% for drinking water structures and at most 30% for household sanitation technical package structures. In this regard, the requested contribution from the populations should not constitute a handicap for the sub-programme, given the financial capacities of the said population, particularly since for drinking water, the contribution is not part of the investment for the construction of the structures, but constitutes an advance in the form of a revolving fund to cover the running costs during the initial months of operation in order to avoid any stoppage that would adversely affect the beneficiary population. Furthermore, for household sanitation, the beneficiaries will make part or all of their contributions in kind by providing unskilled labour or local materials to be used in the construction of the latrines. (iii) Lastly, with regard to the risk relating to non-extension of private management to water structures of the sub-programme, it should be noted that in view of the positive results obtained following the adoption of this method of management and operation, the Government took the firm decision to enact a law extending the scheme to both new and old water supply schemes. In this regard, it should be noted that 50% of the national rural water structures is currently managed by private operators. Hence, the sub-programme under review intends to provide support to these private operators, so as to enable them to better fulfil their mission.

⁴ Key donors in the water and sanitation sector in Niger: AFD (lead), ADB, World Bank, ABEDA, European Union, IDB, UNICEF, Japanese, Swiss and Danish Cooperation Agencies.

4.6. Knowledge Development

4.6.1 It will be necessary to build capacities in order to enhance the efficiency of operators and ensure sustainability of the DRWSS services. Establishing the sub-programme is all the more crucial in rural areas as there is no planning and programming reference framework: water supply has been developed for several years based on a series of independently implemented schemes. Admittedly, substantial results were obtained in the area of water infrastructure development and incorporated into the IRH-Signer data base at the MHE, but there is no indicator on the actual rate of access to water, given that data published in previous years showed wide discrepancies. Hence, through this financing, the ADB intends to support the MHE to undertake an inventory of sanitation infrastructures that would not only help to build the necessary knowledge, but also establish a sanitation information system (SIS) connected to the already existing drinking water system. Once established, the SIS will help to update, nationwide, the rates of access by the population to water and sanitation for all the structures provided under NDWSSP-2020.

4.6.2 In addition to building on the knowledge developed during Phase 1 of NRDWSSP, the current sub-programme will allow for: (i) the training of leaders of the 99 water users' associations (WUAs) and 427 water point management committees (WPMCs) to ensure rational and sustainable management of the DWSS structures constructed; (ii) the training of 50 repairers to ensure maintenance of the water structures; (iii) the training of 300 masons in VIP household latrine construction; (iv) strengthening of the capacities of 30 private operators in the operation and maintenance of rural drinking water networks; (v) the training of sector workers of the 8 regions of the country in updating the computerized national water and sanitation database; and (vi) the introduction of 300 female outreach workers and 150 school teachers to the techniques of maintaining the environment and sanitation structures to ensure sustainability of sensitization activities on hygiene and environmental cleanliness in the localities concerned. Furthermore, the training programmes developed under the present sub-programme will target village grassroots community capacity building in the planning and management of small water and sanitation schemes and procurement procedures to enable them to fulfil their responsibilities as contracting authorities under the current decentralization policy.

V. Legal Framework

5.1. Legal Instrument

5.1.1 *Conditions precedent to effectiveness of the grant.* Effectiveness of the loan and grant agreement will be subject to fulfilment, by the Borrower, of the conditions defined in Section 12.01 of the General Conditions.

5.1.2 The ADF will make the first disbursement of the grant resources only if, in addition to effectiveness of the Financing Agreement, the Borrower fulfils, to the satisfaction of the ADF, the following commitments and conditions:

Conditions precedent to the first disbursement

- i) Provide the Bank with evidence of the opening of two special accounts by the Project Coordination Unit (PCU) with a bank acceptable to the Bank to receive both the grant and loan resources;

- ii) Provide the Bank with evidence of the appointment of the Coordinator of the Sub-programme and two focal point engineers in Tillabéry and Dosso regions, whose CVs have been submitted to the Bank for prior approval; and
- iii) Provide the ADF with evidence of providing the Sub-programme Coordination Unit with operational premises large enough to accommodate its staff.

Other Conditions

- i) Provide the ADF with evidence, not later than 31 March 2012, of extending the mandate of the Steering Committee under Phase I to the current Sub-programme; and
- ii) Transmit to the ADF for approval, not later than 30 June 2012, the administrative, technical and financial management procedures manual of the programme, which will also define the respective roles of the various donors, as well as the procedures for the use of community labour in building household latrines.

5.2. Compliance with Bank Policies

- (X) This sub-programme complies with all the Bank's relevant policies.
- () It is recommended that the following waivers to the Bank's policies should be approved. The sub-programme is consistent with all other relevant policies.

Special Conditions (where applicable): (not applicable)

VI. RECOMMENDATION

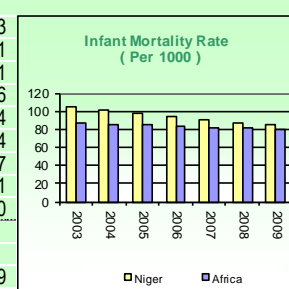
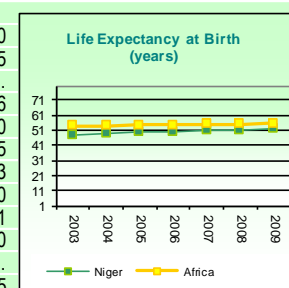
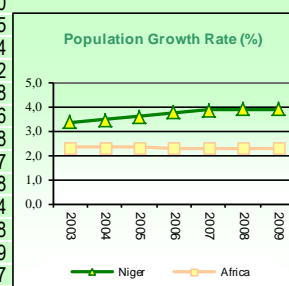
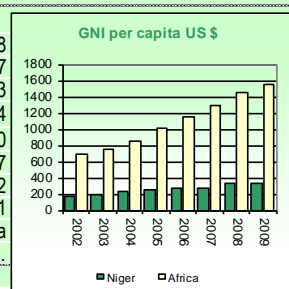
Management recommends that the Board of Directors should approve the proposal of an ADF loan of UA 16.00 million and a Rural Water Supply and Sanitation Initiative (RWSSI) Trust Fund grant of UA 3.67 million from the Bank to the Government of Niger for the purposes and subject to the conditions defined in this report.

COMPARATIVE SOCIO-ECONOMIC INDICATORS

Niger

COMPARATIVE SOCIO-ECONOMIC INDICATORS

	Year	Niger	Africa	Developing Countries	Developed Countries
Basic Indicators					
Area ('000 Km ²)		1 267	30 323	80 976	54 658
Total Population (millions)	2010	15,2	1 031,5	5 659	1 117
Urban Population (% of Total)	2010	20,4	39,9	45,1	77,3
Population Density (per Km ²)	2010	12,5	34,0	69,9	20,4
GNI per Capita (US \$)	2009	340	1 525	2 968	37 990
Labor Force Participation - Total (%)	2010	31,3	40,1	61,8	60,7
Labor Force Participation - Female (%)	2010	31,6	41,0	49,1	52,2
Gender -Related Development Index Value	2007	0,308	0,433	0,694	0,911
Human Develop. Index (Rank among 169 countries)	2010	167	n.a	n.a	n.a
Popul. Living Below \$ 1 a Day (% of Population)	2008	59,5	42,3	25,2	...
Demographic Indicators					
Population Growth Rate - Total (%)	2010	3,3	2,3	1,3	0,6
Population Growth Rate - Urban (%)	2010	4,5	3,4	2,4	1,0
Population < 15 years (%)	2010	50,1	40,3	29,0	17,5
Population >= 65 years (%)	2010	2,1	3,8	6,0	15,4
Dependency Ratio (%)	2010	108,8	77,6	55,4	49,2
Sex Ratio (per 100 female)	2010	100,4	99,5	93,5	94,8
Female Population 15-49 years (% of total population)	2010	21,5	24,4	49,4	50,6
Life Expectancy at Birth - Total (years)	2010	52,5	56,0	67,1	79,8
Life Expectancy at Birth - Female (years)	2010	53,4	57,1	69,1	82,7
Crude Birth Rate (per 1,000)	2010	52,7	34,2	21,4	11,8
Crude Death Rate (per 1,000)	2010	14,1	12,6	8,2	8,4
Infant Mortality Rate (per 1,000)	2010	83,7	78,6	46,9	5,8
Child Mortality Rate (per 1,000)	2010	198,0	127,2	66,5	6,9
Total Fertility Rate (per woman)	2010	7,0	4,4	2,7	1,7
Maternal Mortality Rate (per 100,000)	2010	647,0	530,2	290,0	15,2
Women Using Contraception (%)	2009	15,7	...	61,0	...
Health & Nutrition Indicators					
Physicians (per 100,000 people)	2008	2,0	58,3	109,5	286,0
Nurses (per 100,000 people)*	2008	11,4	113,3	204,0	786,5
Births attended by Trained Health Personnel (%)	2009	17,4	50,2	64,1	...
Access to Safe Water (% of Population)	2008	48,0	64,5	84,3	99,6
Access to Health Services (% of Population)	2009	44,2	65,4	80,0	100,0
Access to Sanitation (% of Population)	2008	9,0	41,0	53,6	99,5
Percent. of Adults (aged 15-49) Living with HIV/AIDS	2007	0,8	4,9	0,9	0,3
Incidence of Tuberculosis (per 100,000)	2009	181,0	294,9	161,0	14,0
Child Immunization Against Tuberculosis (%)	2009	96,0	79,9	81,0	95,1
Child Immunization Against Measles (%)	2009	87,0	71,1	80,7	93,0
Underweight Children (% of children under 5 years)	2006	39,9	30,9	22,4	...
Daily Calorie Supply per Capita	2007	2 376	2 465	2 675	3 285
Public Expenditure on Health (as % of GDP)	2008	5,0	5,7	2,9	7,4
Education Indicators					
Gross Enrolment Ratio (%)					
Primary School - Total	2010	72,9	102,7	107,2	101,3
Primary School - Female	2010	63,9	99,0	109,2	101,1
Secondary School - Total	2010	13,3	37,8	62,9	100,1
Secondary School - Female	2010	10,5	33,8	61,3	99,6
Primary School Female Teaching Staff (% of Total)	2010	44,7	47,0	60,5	81,4
Adult literacy Rate - Total (%)	2005-08	28,7	64,8	80,3	98,4
Adult literacy Rate - Male (%)	2005-08	42,9	74,0	86,0	98,7
Adult literacy Rate - Female (%)	2005-08	15,1	55,9	74,8	98,1
Percentage of GDP Spent on Education	2009	4,5	4,6	3,8	5,0
Environmental Indicators					
Land Use (Arable Land as % of Total Land Area)	2008	11,4	7,8	10,6	10,9
Annual Rate of Deforestation (%)	2005	...	0,7	0,4	-0,2
Annual Rate of Reforestation (%)	2005	...	10,9
Per Capita CO2 Emissions (metric tons)	2009	0,1	1,1	2,9	12,5



Sources : ADB Statistics Department Databases; World Bank: World Development Indicators;

last update :

May 2011

UNAIDS; UNSD; WHO; UNICEF, WRI, UNDP; Country Reports.

Note : n.a. : Not Applicable ; ... : Data Not Available.

Appendix II

Table of ADB Portfolio in Niger as at 30/06/2011

Division	Project Name	SAP Code	Status	Source of Fin.	Sector	Apprv Date	Total Amt	Disb'd as at 30/06/2011	Disburs. Rate
OITC1	Tibiri-Dakoro and Madaoua-B Roads project	P-NE-DB0-008	OnGo	ADF loan	Transport	19/12/2005	22 00 000.00	9 588 554.40	43.58
ORWA	EMERG. HUMANIT. AID TO DROUGHT VICTIMS	P-NE-AAB-001	APVD	SRF	Agriculture	20/07/2010	636 675.03	0	0
				ADF Grant		21/02/2007	3 000 000.00	1 078 408.35	36
OWAS1	RDWSS Project in 3 Regions	P-NE-EA0-007	OnGo	RWSSI TF	Water Sup/San	21/02/2007	11 035 029.38	7 974 467.81	64
				ADF loan		22/10/2003	15 000 000.00	13 790 585.08	91.94
OSAN2	DIFFA AGRO-PASTORAL DEVELOPMENT PROJECT	P-NE-A00-002	OnGo	ADF loan	Agriculture	22/10/2003	447 569.55	447 569.55	100
OSAN2	WATER RESOURCES EXTENSION PROJECT	P-NE-AAC-008	OnGo	ADF Grant	Agriculture	5/10/2006	13 000 000.00	6 282 639.19	48.33
				ADF loan		29/10/2008	20 000 000.00	2 198 172.87	10.99
OSAN4	KANDADJI PROGRAMME	P-NE-AA0-017	OnGo	ADF Grant	Agriculture	29/10/2008	20 000 000.00	1 720 902.72	8.6
OSAN4	INVASIVE AQUATIC WEEDS - NIGER	P-Z1-AA0-081	OnGo	ADF loan	Agriculture	22/09/2004	1 220 000.00	408 876.94	33.51
OSGE2	DECENTRALIZATION SUPPORT PROJECT	P-NE-K00-008	OnGo	ADF Grant	Multi-Sector	29/11/2006	3 000 000.00	2 131 405.10	71.05
				ADF loan		6/12/2010	23 970 000.00	14 170 000.00	59.12
				ADF Grant		6/12/2010	4 030 000.00	0	0
OSGE2	DEVELOPMENT STRATEGY SUPPORT PROGRAMME	P-NE-KA0-006	APVD	ADF Grant	Multi-Sector	6/12/2010	4 030 000.00	4 030 000.00	100
				ADF loan		3/12/2003	10 000 000.00	9 744 477.46	97.44
				ADF Grant		3/12/2003	2 000 000.00	1 458 108.39	72.91
OSHD2	EDUCATION II	P-NE-IA0-005	OnGo	ADF loan	Social	3/12/2003	85 113.18	85 113.18	100
				ADF loan		15/12/2010	7 870 000.00	0	0
OSHD2	VOCATIONAL EDUCAT&TRAINING SUPPORT-PADEFPP	P-NE-IAE-001	APVD	ADF Grant	Social	15/12/2010	17 630 000.00	0	0
AWTF	Niger PANGIRE	P-NE-EAZ-002	OnGo	AWTF	Water Sup/San	30/04/2007	581 279.25	0	0

Map of the Sub-Programme Area

