



## BRIEFING NOTE NIGER

### Key findings

- Challenges in Niger
  - a. Niger is one of the poorest countries in the world with recurring droughts, and a high water scarcity;
  - b. The country's literacy rate is 28.7% which directly impacts on the human resources development;
  - c. Of the total deaths in Niger, 23 % are WASH-related<sup>1</sup>
- Sanitation coverage is low at 38.4% in urban areas and only 6.7% for the rural population according to the estimates of the National Programme.
- It is extremely difficult to assess the exact HR capacity working in the NGOs and business sectors;
- There are not enough engineers working at regional and departmental levels, because the majority works at the central level;
- The HR competency and capacity to work in hygiene and sanitation, particularly in rural and dispersed rural areas are inadequate;
- There is a general lack of hygiene and WASH focus in public-sector institutions on regional and departmental levels, particularly in the health directorates;
- There is a general lack of opportunities for training specialists in WATSAN middle and high training centres;
- There is very little coordination between NGOs and government departments in charge of water and sanitation;
- There are very few employment opportunities in the WATSAN sector and also very little opportunity for self-employment;
- Operators working in the wastewater sector are not organised.

## Background

This Briefing Note summarises the findings from an IWA-led study in Niger, made possible through the support of the United States Agency for International Development (USAID) under the auspices of their West Africa WASH (WA-WASH) programme and was co-funded by Department for International Development (DFID UK). It sets out to assess the human resources (HR) needs to provide water supply and sanitation services in four countries: Senegal, Ghana, Niger and Burkina Faso. The study was executed by staff from the Abdou Moumouni University of Niamey and the study was supported by Cap-Net who facilitated the connections with the country study team.

Situated in the Sahelian zone in West Africa, the Republic of Niger covers an area of 1,267,000 km<sup>2</sup>, making it the largest nation in the region. The country is divided into eight administrative regions (Agadez, Diffa, Dosso, Maradi, Tahoua, Tillaberi, Zinder and Niamey), 63 departments and 366 rural districts (communes). Niger is one of the poorest countries in the world with recurring droughts, and a high water scarcity. Ninety percent of the country's surface water resources originate from outside the country. Groundwater is dependent on the rainfall that is more and more erratic and poorly distributed. Access to drinking water and sanitation are among the lowest in the world. Environmentally, the country is plagued by overgrazing, soil erosion, deforestation, desertification and droughts. It is landlocked and one of the hottest countries in the world. The northern part of Niger is 80% desert, with the southern 20% savannahs, suitable for livestock and limited agriculture. Agriculture contributes about 40% of GDP and provides livelihood for about 80% of the population.

The majority of the population lives in rural and rural dispersed areas where abject poverty is widespread and the life expectancy of the population at birth is low at 53.8 years. The country's literacy rate is 28.7% which directly impacts on the human resources development. Thus, poverty and geographical impediments are the two main reasons for Niger's coverage deficits. Linking to this is the direct impact that this has on human resources development.

## Assessment approach

The main objective of this study was to assess human resource requirements in the water supply and sanitation sectors to facilitate achieving MDGs target 7c in the Niger. In addition, the methodology adopted in this study also estimated the human resources requirements to achieve universal coverage of water supply and sanitation for the predicted population in 2015. The study focused on the human resource requirements from the public sector and parastatal institutions, and the private sector (private consultancy companies, individual contractors, etc.), as well as NGOs and CBOs active in the WASH sector.

## Methodological framework

To assess the human resources requirements in WATSAN sector, in terms of numbers (shortages), skills and competencies (gaps), the methodological framework, has set the following steps to:

1. Estimate the 2015 population to incorporate growth;
2. Determine the current water supply and sanitation coverage and calculate the increases needed to achieve a) the MDGs and b) universal coverage (access to water and sanitation for all);
3. Estimate a proxy of HR demand per type of service delivery per 10,000 people;

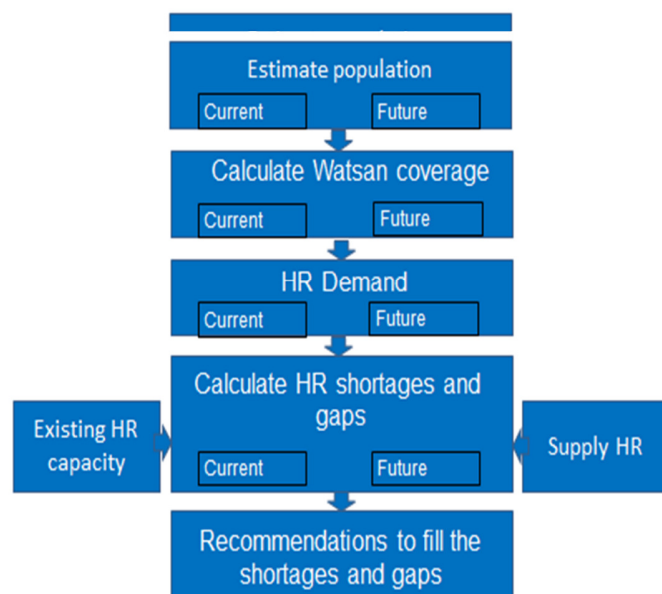


Figure 1: Methodological framework to assess human resource shortages and gaps

4. Determine the existing HR capacity in the country in terms of numbers and skill sets;
5. Assess the HR supply in the years up to 2015 in terms of graduates as well as vocational training;
6. Calculate the HR shortages and assess the HR gaps; and
7. Provide recommendations for the way in which training institutions can address the shortages and gaps, as well as provides recommendations for alternative ways to meet the said shortages and gaps.

### Disciplines to map human resources capacity

The study used the following disciplines to map HR capacity in the WATSAN sectors:

- **Technical specialisation specific to water and sanitation services (WATSAN technical field):** a person who is professionally engaged in a technical field specifically related to the provision of water and sanitation facilities or infrastructure (for instance civil/environmental engineers).
- **Technical specialisation, not specific to the provision of water and sanitation services (Technical field):** a person who is professionally engaged in another technical field that is required in the planning, design or operation of water and sanitation facilities or infrastructure (such as hydro-geologists, mechanical/electrical engineers), but is not water and sanitation sector specific.
- **Management and finance:** a person who is professionally engaged in management (for instance finance, human resources or strategic managers and office managers fulfilling administrative functions) as well as persons who procure goods and services or cost planners.
- **Social development:** a person who is professionally engaged in hygiene promotion or other relevant water, sanitation and health professions in the social sciences (for instance health promotion specialist, sociologist, community development worker).

### Components of the WASH service delivery pathway

The study investigated the capacity of the four employment disciplines, whilst distinguishing the human resource requirements for three different types of work noted below. While this study reflects data from the water supply and sanitation sectors, the research considered hygiene practices as defined by the WASH sector.

- Design and construction;
- Operation and maintenance (O&M);
- Community mobilisation/sanitation and hygiene promotion.

### Data collection and Location

The study was done considering only data obtained from the water supply and sanitation (WATSAN) sector in Niger through (i) a literature review; ii) through visits to selected institutions (Ministry of Water Resources, National Institute of Statistics) and (iii) field surveys within the headquarters of the eight regions of Niger (see figure 2).

While the bulk of the HR information came from government sources, the researchers collected data from 51 organisations among which are six NGOs, eight private enterprises, nine regional directorates, 24 public sector organisations, and 12 training institutes.

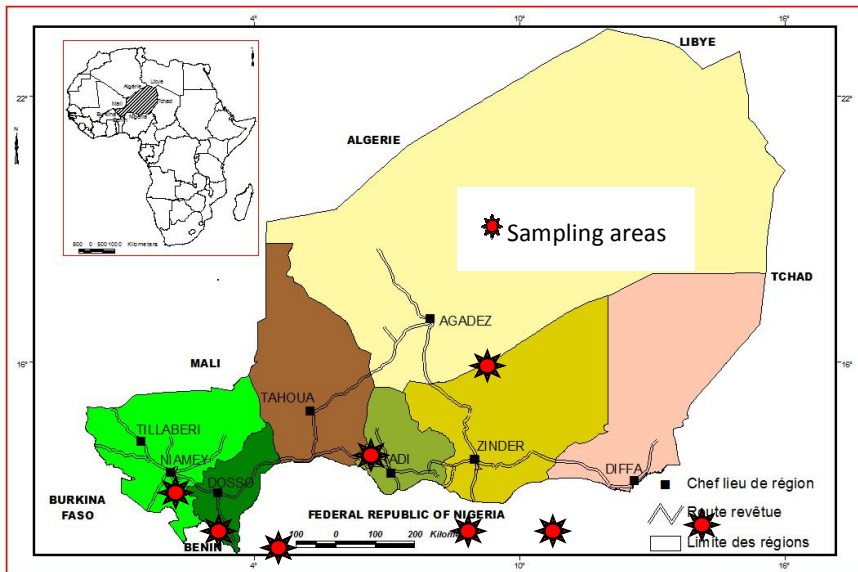


Figure 2: Boundaries of the Niger and areas surveyed

### Assumptions and limitations

The study hinged on a number of methodological and country-specific assumptions:

- Existing coverage data is sufficiently accurate;
- National targets and coverage (MICS and MHE) figures are used;
- Different agglomeration sizes are typically served in each country by the same water and sanitation service delivery mechanism;
  - a. Settlement sizes above 10.000 in this study are considered urban. This means that the methodological settlement size rural village is incorporated as urban
- The methodology assesses professionals, hence does not include household and community involvement.

The main factors that were considered as limitations to the study are:

- Whilst methodology assigns JMP, this study used national coverage figures:
  - Water: According to JMP 2010 figures Niger has achieved 100% urban water coverage and 39% rural water coverage, against 73.75% urban coverage and 64.25% rural coverage reported through national standards.
    - There is an enormous discrepancy in these figures, probably caused by differences in definition.
    - This has impact on HR figures required for expansion of access
  - Sanitation: According to JMP sanitation coverage is 34% and 4% for urban and rural populations respectively while equivalent figures for coverage of sanitation are 38.4 % and 6,7 % according to national figures
- The classification settlement sizes does not coincide with those in Niger, where population figures are available according to Administrative Division;
- The disciplines in different WATSAN sectors as mentioned in the methodology did not always correspond to Niger graduate types.

- Lack of databases of players in the WASH sector;
- Period of field mission (rainy season) coincided with the period of leave for business of drilling, so these were difficult to include;
- Some targeted organisations did not provide useful information, or were reluctant to provide some 'sensitive information' requested, such as wages and the age of their employees.

## Sector context

In 2011, and as part of government's plan to achieve the MDGs, the National Plan for Water Supply and Sanitation (PNEA) was drafted, which serves as the implementation framework for drinking water supply and sanitation in both urban and rural areas for the period 2011-2015. Notwithstanding this plan, Niger can neither provide, implement, operate and maintain all water and sanitation infrastructure nor can it meet the needs of the population pertaining to hygiene and sanitation education without external technical and financial assistance.

### Institutional framework for service delivery

The drinking water sector falls under the auspices of the Ministry for Hydraulics and Environment (MHE). However, the state has privatised the abstraction, reticulation and the sale of drinking water in urban areas (cities, large and small towns and rural villages) and authority was contracted to SEEN, a private company directed by the French company Véolia Eau. Drinking water management in rural environment is delivered by private operators and communities.

Sanitation is the responsibility of a multitude of public sector actors including the MHE, several ministerial departments are active in the sector, being the Ministry of Public Health, the Ministry of Urbanisation, Habitat and Sanitation and the Ministry of National Education.

The **Ministry of Water and Environment (MHE)** defines, implements and regulates all aspects of WATSAN and hygiene policies, strategies, laws and regulations. It also develops and implements the National Integrated Water Resources Management Plan (PANGIRE).

The **Ministry of Public Health's (MSP)** Directorate for Public Hygiene and Health Education (DPH/HE) is responsible for the promotion of hygiene and sanitation. It consists of several divisions including public hygiene, health education, police health and the public hygiene laboratory.

The **Ministry for Town planning, Housing and Sanitation (MULA)** is in charge of the design, coordination, control and monitoring of the national town planning policy, sanitation, cartography and land property.

The **Ministry of National Education (MEN)**, through the School Health Office is in charge of the coordination of all activities dealing with school health, especially health, water-hygiene-sanitation-nutrition-supplementation and TSI/HIV/AIDS.

### Population

The latest general census dates back to 2001 when the population of the Niger was 11,060,291. It is estimated that the population increased to 15,207,065 inhabitants by 2010. This signifies a national growth rate of 3.3%, which would provide a projected population for 2015 of 18,797,709 inhabitants which will be distributed as follows: 8.1% in the city, 4.3% in large towns, 1.5% in small towns, 5.2% in rural villages and 80.9% in dispersed communities.

Type agglomeration	Number		Population	
	2010 No	2015 No	2010 Pop	2015 Pop
City (> 500 000 Habitants)	1	1	1,164,061	1,453,410

Large town (100 000 – 500 000 inhabitants)	4	4	627,954	784,044
Small town (50 000 – 100 000 inhabitants)	3	4	210,738	263,121
Rural villages (10 000 – 50 000 inhabitants)	44	49	805,951	948,004
Dispersed rural communities (< 10 000 inhabitants)	27,854	27,838	12,398,361	14,583,638
TOTAL	27,904	27,896	15,207,065	18,032,217

Table 1: Population distribution according to settlement types

Area	Growth rate (%)
Rural population growth	3.30
Urban population growth	4.54

Table 2: Growth rate<sup>1</sup>

### Existing coverage

According to the yearly MHE report, the rate of access to potable water in 2010 was estimated at 64.25% in rural areas and 73.75% in urban areas. The types of technologies with which the population is served is mainly of cemented or modern well (PC), boreholes equipped with hand pumps (FPMH), stand posts, private connections, autonomous water stations (PAE), mini water supply system (mini - AEP), water supply system (AEP) and dams.

In rural areas, cemented wells and boreholes with hand pumps, are predominantly community managed (55%), while the delegation of management to a private operator, option of the Ministry of hydraulics since 1999, represent only 43%.

According to the third demographic and health survey MICS in Niger:

- 78.8% of the urban population have latrines, while taking into account the traditional latrines, but only 38.4% have improved sanitation facilities;
- 6.7% of the rural population has access to sanitation

The choice of the technology depends on comfort level chosen, availability of water and density of population. Sludge management is generally not controlled and organised with the exception of Ecosan latrines. In the major urban centres, a few private companies offer sludge removal services, but these services are not controlled.

In dispersed areas, sanitation technologies are Sanplat ameliorated latrines and Ecosan latrines. In densely populated areas, the sanitation technologies used are VIP latrines with double pits.

### National MDG targets

The principle objectives of the National Programme for Potable Water and Sanitation Provision between 2011-2015 (PN-AEPA 2011-2015) are to increase:

- The rate of coverage in potable water in rural area to 80% by 2015;
- The rate of access to the basic sanitation infrastructures in rural area to 50% by 2015;
- The rate of coverage in potable water in urban area to 82. 5% by 2015;
- The rate of access to the basic sanitation infrastructures in urban area to 50% by 2015.

<sup>1</sup> National Institute for statistic (INS, 2001)

# Human resources in the WASH sector

## Future HR demand

For this study 'demand' refers to the ideal HR required to service the current and future populations for universal coverage or MDG target coverage. The basis of this approach estimating future HR demand is to use an estimate of HR employed to serve 10,000 people (HR demand ratio). Per size of settlement the number of main technologies to be installed was determined to serve 10,000. Then it was calculated how many professionals would be needed to construct this infrastructure per year, the number of professionals required to operate and maintain and the need for community mobilisers. This formed the HR proxy per 10.000. On that basis and using future population figures, the HR demand was estimated.

HR DEMAND	WATSAN technical field	Other technical field	Management & Finance	Social development
<b>FUTURE HR DEMAND FOR WATER IF ACHIEVING MDGs</b>				
Water delivery: dispersed rural communities	5,262	4,935	1,645	1,097
Water delivery: rural villages	91	61	61	0
Water delivery: small towns	26	17	17	0
Water delivery: large towns	78	52	52	0
Water delivery: city	144	96	96	0
<b>Total</b>	<b>5,600</b>	<b>5,161</b>	<b>1,871</b>	<b>1,097</b>
<b>FUTURE HR DEMAND FOR SANITATION IF ACHIEVING MDGs</b>				
Sanitation delivery: dispersed rural communities	0	102	51	197
Sanitation delivery: rural villages	40	56	27	99
Sanitation delivery: small towns	108	111	45	58
Sanitation delivery: large towns	321	332	134	172
Sanitation delivery: city	601	630	254	339
<b>Total</b>	<b>1,070</b>	<b>1,232</b>	<b>512</b>	<b>866</b>

Table 3: Future HR demand to achieve the national MDGs

To reach the MDG targets (based on national definitions of access and targets not on JMP definitions), a total number of approximately 17,400 professional human resources are needed to implement new infrastructure and maintain the existing

systems. Approximately 38% of this HR demand will require skills particularly designed for the water and sanitation sector, and thus fall in the WATSAN technical field discipline. In general, technical specialisations are highly demanded to reach the MDG target, which will likely have to do with the large need for additional construction of infrastructure. For rural water 15,75% of the population still need access, and for urban systems 8.75% increase is needed.

When looking at sanitation, considering the relatively low targets, an additional of 11,6% and 43,3% increase is needed to reach urban and rural targets. A larger number of other technical field personnel is needed to help achieve this. This indicates that, in comparison to the water sector, less sanitation sector personnel have to have sanitation-specific education.

HR DEMAND for universal coverage	WATSAN technical field	Other technical field	Management & Finance	Social development
<b>FUTURE HR DEMAND FOR WATER IF ACHIEVING UNIVERSAL COVERAGE</b>				
Water delivery: dispersed rural community	6,577	6,169	2,056	1,371
Water delivery: rural village	114	76	76	0
Water delivery: small towns	32	21	21	0
Water delivery: large towns	94	63	63	0
Water delivery: city	174	116	116	0
	<b>6,991</b>	<b>6,445</b>	<b>2,332</b>	<b>1,371</b>
<b>FUTURE HR DEMAND FOR SANITATION IF ACHIEVING UNIVERSAL COVERAGE</b>				
Sanitation delivery: dispersed rural communities	0	204	102	394
Sanitation delivery rural villages	80	112	54	198
Sanitation delivery: small towns	216	223	90	116
sanitation delivery: large towns	643	664	269	345
Sanitation delivery: city	1,202	1,260	509	679
	<b>2,140</b>	<b>2,463</b>	<b>1,024</b>	<b>1,731</b>

Table 4: HR demand for water and sanitation to achieve universal coverage

The predominant HR demand is within the technical fields, where more than 85% are demanded for water provision primarily in the rural dispersed areas, as this is still where 81% of the population resides. To achieve universal coverage an approximate of 17,000 workers are needed in the water sector, of which 16,000 in dispersed rural areas. To reach universal coverage in sanitation the HR demand is much less, but there is a higher demand for staff within the social development category for community mobilisation and hygiene promotion.



## Existing human resource capacity

HR CAPACITY	WATSAN technical field	Other technical field	Management Finance	& Social Development
Existing HR capacity in water for NGO	48	60		30
Existing HR capacity in NGO sanitation	55	68		34
Existing HR capacity in private sector organisations in water	4,982	4,717		5,068
Existing HR capacity in private sector organisations in sanitation	698	686		174
Existing HR capacity in public sector organisations in water	257	91		69
Existing HR capacity in public sector organisations in sanitation	84	63		0
<b>TOTAL NUMBER WORKING IN WATER</b>	<b>5,286</b>	<b>4,868</b>		<b>5,167</b>
<b>TOTAL NUMBER WORKING IN SANITATION</b>	<b>836</b>	<b>818</b>		<b>208</b>

Table 5: Existing HR water and sanitation capacity

The majority of enterprises, research departments and NGO in the research sample stated that they are satisfied with the quality of the human resources in their sectors. They concluded that there is a good balance between the theoretical knowledge that they receive through training and its application. Young graduates need to work under supervision for at least one year and the reason for this is that more and more education and training institutions accentuate the theoretical aspects of the WATSAN training.

As table 5 indicates, activities in the field of drinking water and sanitation are carried out by private sector (companies, consultants, NGOs, etc.). The public sector's role is resource mobilisation, coordination and monitoring. Thus, all physical infrastructure tasks, including operations and maintenance, are performed by the private sector.

### Public sector

The public sector is primarily involved in resource mobilisation, coordination and monitoring, and not for implementation of infrastructure or operation and maintenance. In 2011, there was 354 staff working in the Department of Hydraulics (MH), 81% senior and mid-level managers with 63% working in the decentralised services and 75% in rural departments. There are 589 people working in the sector of potable water and sanitation in the public sector.

In the public sector, WATSAN sector salaries are governed by government decree. For the past five years, the state has focused on a number of sectors including waters and forests, public health, justice and finance to ensure the equalisation and harmonisation of salaries as there are significant differences in the average basic salaries between people involved in the WATSAN sector and between the different staff levels. Salary levels also differ between personnel working in the urban and rural areas.

## NGOs

Only a few international NGOs, such as World Vision, Catholic Relief Service (CRS), WaterAid, Service Néerlandais de développement (SNV), Eau et Assainissement pour l'Afrique (EAA) have permanent personnel working in the WATSAN sector.

National NGO staff is mainly social development agents recruited on a contract basis and on short-term contracts and most of them, 95%, work in rural areas as urban water provision is secured by SEEN. Sanitation in these urban centres is provided by the MULA and rural councils.

National NGOs pay low salaries and international NGOs pay more competitive salaries but often work on a project-basis only. People working for national water associations do so as volunteers and do not get paid.

## Private sector

An estimated 16,629 people work in the private drinking water and sanitation sectors. These companies are responsible for the full service provision cycle.

1. The SEEN is run as a business and it provides drinking water to 52 urban centres. It has sufficient human resources to manage and operate the full water cycle, except the company does not have any personnel that deal with hygiene and sanitation and it is not involved in wastewater management.
2. Since the beginning of the 1990s, with the dissolution of the Office of Exploitation of Subsoil Waters (OFEDES), a number of drilling companies were established and currently only two companies exist that specialise in complex drilling projects.

Salaries in the private sector are significantly lower compared to those of the public service which explains the large number of job applicants competing for public sector jobs. However, they compensate by offering generous incentives, such as a monthly productivity bonus; awards on the basis of annual income; participation in the capital of the company; 13<sup>th</sup> cheque; hardship allowances; and an accommodation allowance. The application of these measures depends on the financial health of the enterprises and applies only to permanent employees.

## Education levels

About 80% of the WATSAN public service officers are senior and middle managers. Forty percent of HR that works in the NGOs sector has a higher level of training, and 60% have medium and low levels. Fourteen percent are trained senior technicians (Baccalaureate plus three years); 61% have an average education (BEPC), and 14% elementary education. Personnel is young and 90% are aged between 32 and 44 years.

## Gender inequality

Male/female proportions in the sector are disproportionate.

- **HR in NGO:** nine women (11%) out of 81 staff members, mostly in leadership positions;
- **HR in the private sector:** 85 (9.8%) women out of 861 staff members working mainly as accountants or cashiers in the SEEN agencies;
- **HR in the public sector:** 39 (8.1%) women out of 481 staff members working mainly as assistants, rural development and engineering technicians.

## Salaries

Salaries of all personnel working for the public and private sectors, including companies, research organisations and NGOs are governed by the Inter-professional Collective Convention, which sets a minimum wage without capping it.

## Human resource supply to the water supply and sanitation sectors

### Type of training and education institutes

Most of the organisations, companies, education institutions and NGOs surveyed in this study were positive about the HR quality and noted a good balance between theoretical knowledge received by students during their training and its practical application. However, young graduates require supervision of at least one year because training institutions focused primarily on theory rather than practical application.

Several tertiary education institutions and vocational training centres are involved in training WATSAN personnel. Table xxx below indicates the institutions and training focus.

### Universities and technical Institutions

Table 6 shows the current capacity and projections to 2015 of certain institutions training HR for the WATSAN sectors and the estimated absorption rate. WATSAN specific related courses are producing fewest outputs, and of those only 25% are estimated to be absorbed in the water and sanitation sector. The absorption in the other disciplines is much lower.

TYPE OF TRAINING INSTITUTION	WATSAN technical field	Other technical field	Management & Finance	Social Development
Total estimate of HR supply that enters WATER sector per year	54	86	80	11
Total estimate of HR supply in that enter WATER sector to 2015	268	428	398	57
Total estimate of HR supply that enters to SANITATION sector per year	11	29	80	6
Total estimate of HR supply that enter SANITATION sector up to 2015	54	143	398	29

Table 6: HR supply over 5 years

The main institutions that produce technicians in the WATSAN sector are:

- **Université Abdou Moumouni in Niamey (UAM):** four faculties, namely science and technology, agricultural science, arts and humanities, economic and legal sciences produce graduates in hydrogeology, electrical engineering, chemistry, agronomy, environmental protection, rural economy, sociology, geography and business management.

- **School of Mines and Geology (EMIG):** trains engineers and technicians in electro-mechanical, mining-geology, electrical engineering and civil engineering. Fifteen graduates enter the job market annually in each of the noted categories.
- **Maradi and Tahoua and Zinder:** are public training institutions that offer two-year certificate training of senior technicians.
- **University of Zinder:** provides bachelor-level education in sociology and geography. The first students will graduate in 2013 and will include 176 sociologists and 170 geographers.

### Technicians and higher education

Although most of the WATSAN engineers in Niger are trained outside the country, the local training institutions provide education in social mobilisation, management and finance and WATSAN engineering. The University Abdou Moumouni in Niamey provides education hydrogeology, chemistry, surveying, sanitary engineering, etc.

- **Practical Institute of Kollo Rural Development (IPDR-Kollo)** is a secondary technical vocational school and trains technicians in rural development and rural socio-economy.
- **Ecole Nationale Administration and Magistracy (ENAM)** focus on training middle and senior managers in general administration, management and accounting. The training is suitable for WATSAN jobs in the administration and finance departments.
- **National Schools of Public Health (ENSP) of Niamey and Zinder** annually train about 20 senior technicians in hygiene, sanitation and bio-chemistry.
- **Vocational and Technical Training Centres (CFPP of Niamey, CFPA of Zinder, do Pat SNP, Sara-Issa Beri, etc.)** focus on training persons under 18 years in professional occupations such as electricity, building, plumbing, mechanical auto-diesel, forge welding, etc.
- **The Regional Centre of Hydrology and Applied Agro-meteorology (CRA)** is an establishment of the Inter-state Committee to Combat Drought in the Sahel (CILSS) and includes the seven Sahelian countries. It provides training and retraining of managers (technicians, supervisors and engineers) in hydrology, IWRM and natural resource management.
- **Le Centre de Formation Professionnelle (PSC) of the SEEN** was created in 2005 for the training and retraining of its agents to ensure quality service and infrastructure maintenance.
- **Training in Techniques of Water and Sanitation (CFTEA)** is a centre of continuing education of the Ministry of Hydraulics that focuses on drinking water and sanitation training.
- **School of Mines from the Air (EMAIR)** was created in 1975 and trains medium-level officials in the fields of public works, drilling, mining and quarries.

### Input from other educational sectors

While the supply of WATSAN training is limited, some private and state institutions offer training in fields related to WATSAN, such as soil sciences, through the Faculty of Agronomy of the University Abdou Moumouni de Niamey. The following courses are taught: analytical chemistry, general sociology, general ecology, hydrology and hydro-geology, rural sociology, general hydraulics and IWRM.

Several private higher and secondary training institutions provide training related to water and includes human resource management (HRM), finance and accounting and project management. Each year an estimated 300 master-level students graduate from these institutions.

There are three public health private schools (IPSP, ESPAS, ISS) that train sanitation and hygiene technicians and laboratory assistants (biochemists).

## Human resources shortages: comparing HR demand with capacity and supply

QUANTIFYING THE SHORTAGES	WATSAN technical field	Other technical field	MANAGEMENT & FINANCE	SOCIAL DEVELOPMENT
<b>WATER SECTOR</b>				
HR shortage for achieving MDG	46	-135	-3,694	783
HR shortage for achieving universal coverage	1,437	1,149	-3,233	1,058
<b>SANITATION SECTOR</b>				
HR shortage for achieving MDGs	180	271	-94	572
HR shortage for achieving universal coverage	1,250	1,503	418	1,438

**Table7: Human resources shortages (negative indicates oversupply)**

Overall, it can be seen that in order to achieve the MDGs and universal coverage, and considering the yearly supply and uptake by the sector, there is a higher shortage for technical fields in the sanitation sector. This is due to the insurmountable coverage deficit that is still challenging the country, particularly when looking to achieve universal coverage for sanitation. Only in the category of management and finance does the sector seem to have a surplus, although investigating universal coverage for sanitation will require additional management personnel.

It is envisaged that the relatively smaller percentage increase needed in water coverage, will require a larger pool of professional human resources, especially when targeting universal coverage.

### Public training institutions

- Seventy percent of WATSAN engineers are trained abroad;
- There are insufficient training facilities, such as premises, equipment and laboratory consumables;
- Young graduates are not sufficiently integrated into the sector.
- There are no regulations in place pertaining to service providers and thus anyone can operate in the WATSAN sector and commercial companies often operate in competition to NGOs;

### Commercial Companies

- Commercial companies often fail or run out of high-performance materials for their research and/or equipment for their drilling operations;
- The companies also lack permanent staff;
- Companies that work in the sector are often not specialised in WATSAN.

## NGOs and Associations

NGOs and Associations struggle to attract qualified, permanent staff and there is thus very little specialisation in the NGO sector. NGOs and enterprises do not always have necessary financial capacity to employ sufficient numbers of personnel. This constitutes an important limitation in their interventions. Also, the lack of government interest in rural sanitation and the difficult geographic terrain works against sanitation provision. SEEN does not focus on sanitation, which is another reason for the low coverage.

## Difficulties for professional staff in rural areas

WATSAN sector salaries in the rural areas are lower than for the same position in an urban area. This mitigates against qualified staff choosing to work in the rural areas.

The biggest HR need is seen in scattered rural communities where social development workers are needed. The Public Health Ministry is responsible for health and hygiene promotion and public health in rural areas. The staff category for health and hygiene HR showed a serious lack of a framework to attract workers to the social development sector.

## Recommendations

To meet the MDG targets by 2015 is already considered unrealistic. The implementation of following recommendations is essential if Niger is to progress towards universal coverage. The study shows the considerable effort that the Niger government is making in terms of training human resources to achieve the MDGs. Despite these efforts, it is clear that emphasis should be placed on the collaboration of state, the private sector and NGOs to do whatever is necessary to have the right professional capacity to support the implementation of improved services, and thus make progress to attain targets in the future.

To address these shortcomings, it is necessary to:

- Set up, at ministerial level, a national directory and human resources monitoring system for the WATSAN sector;
  - Produce an updated database of the WATSAN staff working in state structures;
  - Update the data pertaining to companies working in the WATSAN sector;
- The capacity of the directors and senior staff of state structures should be improved in order to better manage their personnel;
- Provide incentives for employees (public, private and NGOs) to work in rural areas, especially remote ones.
- Reorganise people who work in the private WATSAN sector into legally-recognised corporations;
- Embark recruiting qualified WATSAN engineers to fill vacant positions at regional and departmental directorates;
- Promote and encourage the emergence of companies that want to specialise in the WATSAN sector;
- Capacity-building of NGOs and design offices;
- Strengthen rural and decentralised community capacity to manage their water and sanitation schemes;
- Encourage and support training institutions to open up more opportunities in WATSAN training;
  - Create an enabling environment for students to enter the WATSAN field through, for instance, a student scholarship scheme;
  - Reduce or subsidise the training costs in the AEPA sectors;
  - Promote proximity development services (artisans for repairing, plumbing, diving, building etc.) in isolated areas where access to drinking water is a major difficulty.
  - The state must assure an enabling environment for people to access information to promote effective engagement of all actors, including civil society, private sector and the public administration, by applying the ordinance related to the access to information adopted in 2010; and

- Lobby government to include the WATSAN education and training sectors in its priorities to ensure that institutions have sufficient resources to provide services.
- Encourage women to enter the WATSAN sector through scholarships at education and training institutions;
- Encourage alignment between sectors
  - Encourage collaboration between public and private sectors, NGO on the one hand, and training institutions on the other to better align service provision with market demands; and
  - Identify the needs in research-development, and training courses for learners and align education and training with these demands.

Full references are noted in the full country assessment reports