Preliminary Survey
for the Integrated Improvement
of Regional Health / Environment
in Mauritania

Improvement of
drinking water / sanitation / electricity
in the field of medical and health care

Study Report

March 2010

Engineering and Consulting Firms Association, Japan
System Science Consultants Inc.
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Abbreviation

AfDF The Africa Development Funds
AL The League of Arab States (Arab League)
AMU Arab Maghreb Union
AU African Union
CHN The National Health Center (Le Centre Hospitalier National)
CRDS The Committee for Regional Health Development (Le Conseil regional de Developpement Sanitaire)
DRAS The Regional Director for the Health and Welfare (Le Directeur Regional a l'Action Sanitaire et Sociale)
ECOWAS Economic Community of West African States
ENSP The National School of Public Health at Nouakchott (Ecole Nationale de Sante Publique de Nouakchott)
ESPK School of Public Health at Kiffa (Ecole de Sante Publique de Kiffa)
ESPN School of Public Health at Nema (Ecole de Sante Publique de Nema)
FMUN Faculty of Medicine at the University of Nouakchott (Faculte de Medecine de l'Universite de Nouakchott)
GOJ The government of Japan
GOM The government of Mauritania
HME The Mother-Child Hospital (L'Hopital Mere Enfant)
IDE Certified State Nurse (Les Infirmiers Diplomes d'Etat)
IMS Public Health Nurse (Les Infirmiers Medico-Sociaux)
INSM The National Institute of Medical Specialties (Institut National des Specialites Medicales)
MAED The Ministry of Economic Development Affairs (Ministre des affaires economiques et du developpement)
MDGs Millennium Development Goals
MS The Ministry of Health (Ministere de la Sante)
PRSP Poverty Reduction Strategy Paper
SFE Certified State Midwife (Les Sages Femmes d'Etat)
TICAD IV The Fourth Tokyo International Conference on African Development
TS Senior Technician of All Medical Specialties (Les Techniciens Superieurs de Sante, Toutes Specialites Confoindues)
TTS Teacher in ENSP (Repatition des Filières de Formation de Sante a l'ENSP)
USB Basic Health Unit (Unites Sanitaires de Base)
USD US Dollar
WHO World Health Organization
Executive Summary

Introduction

Islamic Republic of Mauritania (hereinafter called Mauritania) is located in Northwest Africa with size of 1.03 million square kilometers (2.7 times larger than that of Japan) and population of 3.3 million (2008). It is divided into 12 regions called Wilaya and one capital district of Nouakchott, which are subdivided into 53 departments called Moughataa.

Mauritania is trying to improve economic structural adjustment and investment environment, however, there are still many medium to long term challenges such as poverty, ethnic conflict, urban problems, low literacy rate, privatization, unstable exchange rates, food insecurity etc. The country developed PRSP for tackling the most important political issue in 2000 and revised it in 2006. It aims at achieving MDGs with sustainable economic growth and further socioeconomic development at various levels through more diverse and liberal economic activities and also includes Vision 2030.

Since the government of Mauritania was disordered after the last coup, GOJ stopped ODA to Mauritania until November 2009, and delayed establishment of the embassy of Japan until December 2009. GOM expects a great deal of economic assistance by GOJ which was increasing ODA for keeping to an agreement of TICAD IV.

Development of comprehensive strategy about the health sector for getting hold of medium and long term sustainable economic growth for the interim target year, 2015 and the final target year, 2030 in PRSP, through studying basic health environment such as water supply, sanitation facilities and energy supply. The country has its own health care policies for 2010 to 2012. However, the last few years, about 30% of the budget was lacked to implement. So, it is likely that financial and technical assistance from donors are included as its funding resources.

Request from the Government of Mauritania

GOM has requested two kinds of projects to the embassy of Japan in Nouakchott at December 24th 2009.

- Construction and Equipping of Schools of Public Health
- Feasibility Study for the Development of Health Sector
**Direction of the Future Support**

Ministry of Foreign Affairs in Japan and JICA have already started to examine the requests from GOM. Regarding our proposed projects, the supports related with human resource development in health sector from Japan to Mauritania will be grant aid and technical supports.

Most of import goods from Mauritania to Japan are marine products now. However, Mauritania has plenty of materials of iron, copper, oil and natural gas. It means that Mauritania has large potential in future. Japan also should make deep relationship with Mauritania through the aggressive support for stability of economic and social situation in Mauritania. Mauritania is a great valuable country.

**Cooperation for Sustainable Economic Growth**

Mauritania should be keeping sustainable economic growth to 2030 which is the final target year of PRSP. Following programs of health sector are the programs to achieve strategic theme of PRSP “Anchoring growth in sectors from which the poor derive direct benefit” and “Developing human resources and improving access to basic services”.

The program improves health services that are basic social services, through the human resource development in the health sector. Especially, development of nurses and midwives who are core workers in Health Posts and Health Centers is very important.
Proposed Project Design

We have proposed “urgent projects”, “short term projects” and “medium and long term projects” to the MS in Mauritania. The projects includes following view points for supporting from JICA.

**Urgent Projects (~2012):** Expanding a facility of ENSP for increasing the enrollment capacity, and equipments for improving the quality of education. Establishing ESPN including to build a facility and to implement equipments.

**Short Term Projects (~2015):** During the implementation of the urgent projects, programs for improving education systems in the schools of public health and training hospitals must be established. The programs should be enforced as soon as possible after the urgent projects.

**Medium and long term projects (~2020):** Promoting the expansion of basic social services in the region through enhancing regional health services.
1. Introduction

1.1 Background

Islamic Republic of Mauritania (hereinafter called Mauritania) is located in Northwest Africa with size of 1.03 million square kilometers (2.7 times larger than that of Japan) and population of 3.3 million (2008). It is divided into 12 regions called Wilaya and one capital district of Nouakchott, which are subdivided into 53 departments called Moughataa.

<table>
<thead>
<tr>
<th>Year</th>
<th>2006</th>
<th>1990</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>3.0 million</td>
<td>1.9 million</td>
</tr>
<tr>
<td>Average Life Span</td>
<td>64 years</td>
<td>58 years</td>
</tr>
<tr>
<td>GNI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount</td>
<td>2,769.08 million USD</td>
<td>1,075.89 million USD</td>
</tr>
<tr>
<td>Per Capita</td>
<td>760 USD</td>
<td>570 USD</td>
</tr>
<tr>
<td>Growth Rate</td>
<td>11.7%</td>
<td>-1.8%</td>
</tr>
<tr>
<td>Foreign Trade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Export</td>
<td>1,639 million USD (2008)</td>
<td>470 million USD</td>
</tr>
<tr>
<td>Import</td>
<td>1,082 million USD (2008)</td>
<td>520 million USD</td>
</tr>
<tr>
<td>Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DAC</td>
<td>Least Develop Country (LDC)</td>
<td></td>
</tr>
<tr>
<td>World Bank</td>
<td>i / Low-Income Country</td>
<td></td>
</tr>
</tbody>
</table>

Source: Country data book from MOFA Japan

The majority of the population consists of Arabic people called White Mall (mixed Arab and Berber ancestry) and African people called Black Mall. White Mall who originated nomadic occupies the upper society in Mauritania, and Black Mall who originated farmer around Senegal River has been oppressed.

It was not until 1980 that slavery was officially abolished and there still exists a conflict among ethnic groups. In 2003, the Mauritanian National Assembly adopted a new law that penalizes human trafficking as a specific criminal offense.

Mauritania has experienced coups several times after its independence in 1960. In August 2008, the military took over the government and ruled it until July 2009, when the presidential election brought it back to the civilian government. In this election, General Abdel Aziz, the leader of the military coup, was elected after going into civilian.

Among these coups and conflicts, poverty reduction is a principle objective of development policy for the country even after the industrial transformation from...
agriculture to fishery and mining when it gained independence.

Now, Mauritania withdrew from ECOWAS in Dec. 2000 and has joined AU, AL and AMU.

Mauritania is trying to improve economic structural adjustment and investment environment, however, there are still many mid to long term challenges such as poverty, ethnic conflict, urban problems, low literacy rate, privatization, unstable exchange rates, food insecurity etc.

The country developed PRSP for tackling the most important political issue in 2000 and revised it in 2006. It aims at achieving MDGs with sustainable economic growth and further socioeconomic development at various levels through more diverse and liberal economic activities and also includes Vision 2030.

<table>
<thead>
<tr>
<th>Strategic Themes</th>
<th>Objectives and Priorities for 2006-2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accelerated growth and the maintenance of macroeconomic stability</td>
<td>Reduce the incidence of poverty to less than 35 percent at the national level</td>
</tr>
<tr>
<td>Anchoring growth in sectors from which the poor derive direct benefit</td>
<td>Achieve an average annual economic growth rate of more than 10 percent over the period</td>
</tr>
<tr>
<td>Developing human resources and improving access to basic services</td>
<td>Ensure universal access to basic education</td>
</tr>
<tr>
<td>Improving governance and building capacities</td>
<td>Lower the illiteracy rate of adults over 15 years of age to less than 20 percent</td>
</tr>
<tr>
<td>Enhanced steering, monitoring, evaluation, and coordination</td>
<td>Increase the rate of primary healthcare coverage of within a 5 kilometer radius to 90 percent</td>
</tr>
</tbody>
</table>

**Table 1-2 Summary of PRSP action plan 2006-2010**

<table>
<thead>
<tr>
<th>4 Priority Areas</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Education, Health, Water Supply, and Infrastructure</td>
<td></td>
</tr>
</tbody>
</table>

The president Abdel Aziz's efforts to tackle the poverty by improving the health care sector don't work out well as the disorder and weak resource prices impede the country's economic and political growth targeted in PRSP.

Since GOM was disordered after the last coup, GOJ stopped ODA to Mauritania until November 2009, and delayed establishment of the embassy of Japan until
December 2009. GOM expects a great deal of economic assistance by GOJ which was increasing ODA for keeping to an agreement of TICAD IV.

1.2 Objectives

It is aimed that development of comprehensive strategy about the health sector for getting hold of medium and long term sustainable economic growth for the interim target year, 2015 and the final target year, 2030 in PRSP, through studying basic health environment such as water supply, sanitation facilities and energy supply.

1.3 Subjects

In order to achieve the PRSP and MDGs, especially for the health care improvement, the following are the contents of the survey.

- Information of systems, organizations and human resource development in health sector
- Locations of medical facilities and relationships among them
- Situation of medical facilities including equipments, and their operation systems
- Situation of systems about water supply, sewage and power supply in health sector
2. Health Policy

2.1 Institutions

(1) Health care structure

There are health care facilities from primary level to tertiary level.

- Primary level: 53 Moughataa
- Secondary level: 12 Wilaya and one capital district of Nouakchott
- Tertiary level: National

Table 2-1 Requirement for establishment of medical facilities in Moughataa

<table>
<thead>
<tr>
<th>Facility</th>
<th>Region</th>
<th>Population</th>
<th>Medical services</th>
</tr>
</thead>
<tbody>
<tr>
<td>USB</td>
<td>Community</td>
<td>Over 500</td>
<td>• Vaccinations and deliveries by the presence of community health workers</td>
</tr>
<tr>
<td>Health Post</td>
<td>Village</td>
<td>Over 1,500</td>
<td>• Run by nursing, lack of midwives</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Primary curative consultation, consultation and pre-natal, delivery, monitoring of children under 5 years, immunization, birth spacing, distribution of essential drugs</td>
</tr>
<tr>
<td>Health Center (Category B)</td>
<td>Arrondissement</td>
<td>Over 10,000</td>
<td>• Directed by a physician</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• With 10 beds including 4 hospital beds motherhood and small laboratory</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Primary curative consultation, consultation and pre-natal, delivery, monitoring of children under 5 years, immunization, birth spacing, distribution of essential drugs</td>
</tr>
<tr>
<td>Health Center (Category A)</td>
<td>Moughataa</td>
<td>Over 20,000</td>
<td>• Directed by a physician</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• With more than 10 hospital beds, a laboratory, radiology department and a department of dental surgery</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Primary curative consultation, consultation and pre-natal, delivery, monitoring of children under 5 years, immunization, birth spacing, distribution of essential drugs</td>
</tr>
<tr>
<td>Hospital</td>
<td>Moughataa</td>
<td>Over 40,000</td>
<td>• Regional core hospital (Boutilimit, Chinguetti)</td>
</tr>
</tbody>
</table>
a. Primary level

Primary health care facilities consist of 522 health posts and 71 health centers, except that Boutilimit and Chinguetti have hospitals which provide core medical services to the region. Also, there are USB for giving support to the communities where residents lack access to the health posts and the health centers.

GOM is setting up medical facilities to achieve its target that health care facilities should be located within 5 km of any community. However, in spite of the government’s effort, the rate of the facilities to the population is decreasing because of its population increase and spread (from 55% in 2000 to 34.5% in 2004). Or, even though the facilities have been installed, they face the shortage of nurses and cannot function properly.

b. Secondary level

Secondary health care system is composed of 11 Wilaya, among of which 6 hospitals are in charge of the core services for in and around the Wilaya.

Table 2-2 Hospitals in Wilaya

<table>
<thead>
<tr>
<th>Wilaya</th>
<th>City</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hodh ech Chargui</td>
<td>Nema</td>
<td>Core hospital</td>
</tr>
<tr>
<td>Hodh el Gharbi</td>
<td>Aioum</td>
<td>Core hospital</td>
</tr>
<tr>
<td>Assaba</td>
<td>Kiffa</td>
<td>Core hospital</td>
</tr>
<tr>
<td>Gorgol</td>
<td>Kaedi</td>
<td>Core hospital</td>
</tr>
<tr>
<td>Brakna</td>
<td>Aleg</td>
<td>—</td>
</tr>
<tr>
<td>Trarza</td>
<td>Rosso</td>
<td>Core hospital</td>
</tr>
<tr>
<td>Adrar</td>
<td>Atar</td>
<td>—</td>
</tr>
<tr>
<td>Dakhlet Nouadhibou</td>
<td>Nouadhibou</td>
<td>Core hospital</td>
</tr>
<tr>
<td>Tagant</td>
<td>Tidjikja</td>
<td>—</td>
</tr>
<tr>
<td>Tiris Zemmour</td>
<td>Zouerat</td>
<td>—</td>
</tr>
<tr>
<td>Guidimaka</td>
<td>Selibaby</td>
<td>—</td>
</tr>
</tbody>
</table>
c. Tertiary level

Tertiary health care facilities are composed of 9 hospitals, 2 public health schools and 3 other related institutions.

<table>
<thead>
<tr>
<th>Name</th>
<th>Place</th>
</tr>
</thead>
<tbody>
<tr>
<td>The National Health Center (CHN)</td>
<td>Nouakchott</td>
</tr>
<tr>
<td>Cheikh Zaed Hospital of Nouakchott</td>
<td>Nouakchott</td>
</tr>
<tr>
<td>The Neuro-Psychiatry Center</td>
<td>Nouakchott</td>
</tr>
<tr>
<td>The Mother-Child Hospital (HME)</td>
<td>Nouakchott</td>
</tr>
<tr>
<td>The National Oncology Center</td>
<td>Nouakchott</td>
</tr>
<tr>
<td>The National Cardiology Center</td>
<td>Nouakchott</td>
</tr>
<tr>
<td>The National Center of Orthopedics and Functional Readaptation</td>
<td>Nouakchott</td>
</tr>
<tr>
<td>The National Blood Transfusion Center</td>
<td>Nouakchott</td>
</tr>
<tr>
<td>The Military Hospital of Nouakchott</td>
<td>Nouakchott</td>
</tr>
<tr>
<td>The National School of Public Health (ENSP)</td>
<td>Nouakchott</td>
</tr>
<tr>
<td>The School of Public Health Kiffa (ESPK)</td>
<td>Kiffa</td>
</tr>
<tr>
<td>The National Institute of Research in Public Health</td>
<td>Nouakchott</td>
</tr>
<tr>
<td>The Control Laboratory of Medicine Quality</td>
<td>Nouakchott</td>
</tr>
<tr>
<td>The Supplying Center of Essential and Consumable Medicines</td>
<td>Nouakchott</td>
</tr>
</tbody>
</table>

(2) Operations

Participation of community representatives in the operations of the health care facilities is considered to be essential for the health administration. There are committees composed of people from Moughataa, Wilaya and National level.

a. National: The National Committee for primary health care and Surveillance of high risk disease

It is responsible for monitoring and guiding to national policy in health care sector. It is chaired by MS, and organized by representatives of all related departments, such as health care, social security and community development, and representatives of civil society and partners.
b. Wilaya

(a) The Committee for Regional Health Development (CRDS)

It is chaired by the governor of Wilaya (Wali), and composed the governors of Moughataa (Hakem), members of the National Assembly, the mayors in Moughataa, the director of the Regional Health Affairs (DRAS), the director of the Regional Center Hospital, the directors of the Health Department of Moughataa and directors of regional department in other ministries. It is in charge of advising on policies, budget and other health related activities.

(b) The Administration Committee for Hospital

It is organized by members of the local parliament, the hospital directors and representatives from the civil association under Hakem. It gives advice on hospital management through monthly meeting.

c. Moughataa

(a) The Committee for Health Development at Moughataa

It is organized by the same members of CRDS. It is held twice a year and in charge of advising on policies, budget and other health related activities for Moughataa.

(b) The Administration Committee for Health

It is an advisory committee for Moughataa’s health services and is composed of the following four expert committees.

- The Administration Committee for Health Care Center: It is composed of three members of Moughataa parliament including one woman, the director of the health center and a tax collector.
- The Administration Committee for Core Health Post: It is composed of four members of Moughataa parliament including one woman and the director of the health center.
- The Administration Committee for Health Post: It is composed of 3 representatives from communities
- The Administration Committee for USB: It is composed of 3 representatives from communities and in charge of each community’s health care
(3) Ministry of Health (MS)

a. Organizations

MS is composed of 8 organizations.

<table>
<thead>
<tr>
<th>Organization</th>
<th>Business</th>
</tr>
</thead>
</table>
| Department of planning, cooperation and health information | • The health development plan (national and regional)  
• Bilateral, multilateral or international cooperation  
• Health information |
| Department of hospital                    | • National hospital policy  
• Hospital reform  
• Private clinics and related medical facilities |
| Department of anti-illness measure        | • Communicable diseases and non-communicable diseases  
• Public health  
• HIV/AIDS |
| Department of health service              | • Primary healthcare  
• Reproductive health  
• Immunization  
• Nutrition  
• Health education |
| Department of pharmacy and laboratory     | • Pharmaceutical  
• Drugs |
| Department of human resource              | • Human resource |
| Department of financial affairs            | • Budget  
• Founds |
| Department of infrastructure, equipment and maintenance | • Infrastructure  
• Equipments  
• Facilities |

b. Budget

The budget of MS in 2005 was 9,773 million ouguiya (about 38 million USD). However, only about 70% of it, 6,628 million ouguiya (about 25 million USD), was executed.
2.2 Human Resources

Until 2008, when Faculty of Medicine was established in University of Nouakchott for the purpose of training doctors, GOM had been sending its doctors to other countries at the government’s expense for their training.

Recently, Department of Human Resource Development has been established as fostering of doctors, pharmacist, nurses and other medical workers especially has high priority in the country’s health administration.

<table>
<thead>
<tr>
<th>Year</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician</td>
<td>—</td>
<td>—</td>
<td>426</td>
<td>426</td>
<td>458</td>
</tr>
<tr>
<td>Pharmacist</td>
<td>62</td>
<td>73</td>
<td>82</td>
<td>82</td>
<td>81</td>
</tr>
<tr>
<td>Dentist</td>
<td>47</td>
<td>72</td>
<td>77</td>
<td>77</td>
<td>84</td>
</tr>
<tr>
<td>Medical technician</td>
<td>347</td>
<td>413</td>
<td>489</td>
<td>489</td>
<td>438</td>
</tr>
<tr>
<td>Midwife</td>
<td>235</td>
<td>328</td>
<td>382</td>
<td>395</td>
<td>355</td>
</tr>
<tr>
<td>Nurse</td>
<td>1,242</td>
<td>1,636</td>
<td>1,748</td>
<td>1,821</td>
<td>1,671</td>
</tr>
<tr>
<td>Other</td>
<td>775</td>
<td>337</td>
<td>300</td>
<td>300</td>
<td>1,989</td>
</tr>
</tbody>
</table>

Unit: person
Source: Annual report 2008

(1) Training of Nurses and Midwives

In Mauritania, Nouakchott and Kiffa have schools training and reeducating nurses and midwives.
a. The National School of Public Health at Nouakchott (ENSP)

It was originally established as the National School of Nursing and Midwifery Nouakchott in 1966 with help of UNICEF and WHO. It was renamed as the National School of Public Health at Nouakchott (ENSP) in 1983 when MS became responsible for it and then a new building was built in accordance with new training courses.

Although the fixed number of students in 1983 was supposed to be 375, there are approximately 620 students in 5 curriculums as of October 2009. In spite of this fact, any extension work hasn’t been done to the school so far, which means the school is facing the shortage of classrooms, laboratory, textbooks, experimental apparatus and so on. Besides, few teachers have expertise in updated medical equipment and medical skills of teachers.

All the school fees are covered by the government and the number of student enrollments is decided by MS considering the demand of public hospitals and the health policies. Enrollment limits for the training courses of anesthesia specialist and radiation technologist vary from year to year.

Because of the budgetary deficit, a sufficient number of health workers cannot be trained, although there is rapid growth in demand for them with population increase and the government’s efforts for poverty reduction.

<table>
<thead>
<tr>
<th>Course</th>
<th>Terms of enter</th>
<th>Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMS</td>
<td>Diploma Certificate and Exam.</td>
<td>2 years</td>
</tr>
<tr>
<td>IDE</td>
<td>Scientific baccalaureat / IMS + 5 years experiences and exam.</td>
<td>3 years</td>
</tr>
<tr>
<td>SFE</td>
<td>Scientific baccalaureat / IMS + 5 years experiences and exam.</td>
<td>3 years</td>
</tr>
<tr>
<td>TS</td>
<td>Scientific baccalaureat / IMS + 5 years experiences and exam.</td>
<td>3 years</td>
</tr>
<tr>
<td>TSS</td>
<td>IDE, SFE or TS + 3 years experiences and exam.</td>
<td>2 years</td>
</tr>
</tbody>
</table>

Table 2-7 Number of students in ENSP

<table>
<thead>
<tr>
<th>Course</th>
<th>IMS</th>
<th>IDE</th>
<th>SFE</th>
<th>TS</th>
<th>TSS</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>235</td>
<td>223</td>
<td>124</td>
<td>38</td>
<td>N/A</td>
<td>Over 620</td>
</tr>
</tbody>
</table>

Unit: person

Table 2-8 Number of teachers and staffs in ENSP

<table>
<thead>
<tr>
<th>Type</th>
<th>Teacher</th>
<th>Official</th>
<th>Secretary</th>
<th>Caretaker</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>24</td>
<td>13</td>
<td>6</td>
<td>10</td>
<td>53</td>
</tr>
</tbody>
</table>

Unit: person
b. School of Public Health at Kiffa (ESPK)

Established in 2008, it has 3 courses of IMS, IDE, SFE and their contents are the same as those of ENSP.

As of the end of 2009, 62 students are enrolled while its fixed number is 135. However, the school capacity is obviously insufficient if all the courses try to be filled with students, and it is to be reformed with assistance of Spain after 2010.

(2) Faculty of Medicine at the University of Nouakchott (FMUN)

Most of the doctors in the country are those who have studied abroad at the government’s expense in Morocco or Tunisia, and medical specialists who have been in other countries like France or Spain.

In 1996, the National Institute of Medical Specialties (INSM) was installed by MS for the training of surgeon, gynecologist, obstetrician, pediatrician and internist. As a result, all the hospitals in Wilaya now have surgeons and gynecologists all the time and a general criteria has been brought to the medical system, which had been confused because of other countries’ standards and techniques.

In 2006, INSM was taken in by University of Nouakchott as its faculty of medicine and started the training of doctors in 2008.

<table>
<thead>
<tr>
<th>Course</th>
<th>Year</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation round</td>
<td>1</td>
<td>General science and French</td>
</tr>
<tr>
<td>1st Round</td>
<td>2</td>
<td>General medicine</td>
</tr>
<tr>
<td>2nd Round</td>
<td>4</td>
<td>Basic medical training and OJT in training hospital</td>
</tr>
<tr>
<td>3rd Round</td>
<td>1-5</td>
<td>Internship</td>
</tr>
</tbody>
</table>

2.3 Annual Plan 2010-2012

(1) Outline

The country has its own health care policies for 2010 to 2012. However, the fact that only about 70% of the budget was implemented as mentioned earlier shows that it is not perfectly clear if the country is capable enough to fund the 3-year plan for the health care sector. So, it is likely that financial and technical assistance from donors are included as its funding resources.
Table 2-10 Overview of Annual Health Plan 2010-2012

<table>
<thead>
<tr>
<th>Action</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvement of health service</td>
<td>50.85</td>
<td>41.15</td>
<td>27.32</td>
<td>119.33</td>
</tr>
<tr>
<td>Infrastructure of health service</td>
<td>21.29</td>
<td>9.00</td>
<td>8.18</td>
<td>38.47</td>
</tr>
<tr>
<td>Human resource development</td>
<td>2.62</td>
<td>4.44</td>
<td>3.00</td>
<td>10.06</td>
</tr>
<tr>
<td>Medicine</td>
<td>3.43</td>
<td>3.92</td>
<td>5.14</td>
<td>12.49</td>
</tr>
<tr>
<td>Anti illness measure</td>
<td>25.84</td>
<td>23.91</td>
<td>22.75</td>
<td>63.59</td>
</tr>
<tr>
<td>PRSP/MDGs</td>
<td>25.52</td>
<td>23.59</td>
<td>22.43</td>
<td>62.63</td>
</tr>
<tr>
<td>Parasite, trachoma and rabies</td>
<td>0.13</td>
<td>0.13</td>
<td>0.13</td>
<td>0.40</td>
</tr>
<tr>
<td>Non-communicable disease</td>
<td>0.18</td>
<td>0.18</td>
<td>0.18</td>
<td>0.55</td>
</tr>
<tr>
<td>Financial / Information</td>
<td>4.52</td>
<td>3.00</td>
<td>3.38</td>
<td>10.90</td>
</tr>
<tr>
<td>Total</td>
<td>81.21</td>
<td>68.06</td>
<td>53.45</td>
<td>193.82</td>
</tr>
</tbody>
</table>

Unit: million USD

(2) Human Resource Development

Human resource development of the 3-year plan for the health care sector includes the budget for new facilities and equipments of public health schools.

Table 2-11 Outline of human resource development in Annual Health Plan 2010-2012

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rehabilitation / extension NSPHN (0.12 million USD)</td>
<td>Rehabilitation / extension NSPHN (0.2 million USD)</td>
<td>Equipment for NSPHN (0.24 million USD)</td>
<td></td>
</tr>
<tr>
<td>Construction of SPHK (0.2 million USD)</td>
<td>Construction of SPHK (1.02 million USD)</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>—</td>
<td>—</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>—</td>
<td>Equipment for SPHK (0.49 million USD)</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>Training of 20 local health trainers (0.09 million USD)</td>
<td>Training of 15 local health trainers (0.09 million USD)</td>
<td>Training of 12 local health trainers (0.09 million USD)</td>
<td></td>
</tr>
<tr>
<td>Invite 12 foreign medical doctors (0.09 million USD)</td>
<td>Invite 8 foreign medical doctors (0.15 million USD)</td>
<td>Invite 5 foreign medical doctors (0.18 million USD)</td>
<td></td>
</tr>
<tr>
<td>Improvement of medical workers (1.22 million USD)</td>
<td>Improvement of medical workers (1.22 million USD)</td>
<td>Improvement of medical workers (1.22 million USD)</td>
<td></td>
</tr>
<tr>
<td>Contract with foreigners (0.82 million USD)</td>
<td>Contract with foreigners (0.82 million USD)</td>
<td>Contract with foreigners (0.82 million USD)</td>
<td></td>
</tr>
<tr>
<td>Reviewing curriculum of SPH (0.04 million USD)</td>
<td>—</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>Training 100 medical workers (0.04 million USD)</td>
<td>Training 100 medical workers (0.04 million USD)</td>
<td>Training 100 medical workers (0.04 million USD)</td>
<td></td>
</tr>
</tbody>
</table>
2.4 Drinking Water and Electricity

GOM has decided four priority area of PRSP which are education, health, water supply and infrastructure such as transportation, energy and telecommunication. To do maintenance on water supply and electricity supply is very important element for improving health sector.

(1) Drinking Water

Maintenance of water supply is the most important state policy in Mauritania. Senegal River is popular source of water supply in the south of Mauritania. Many residents of the basin of the Senegal River continue to be plagued by diarrhea, parasites and infectious diseases such as malaria, for lacking enough purification facilities around the river. On the other hand, there is no method for residents of the northern area excepting the supply from well.

In 2004, 18.9 percent of households were supplied drinking water from their taps, 39.4 percent of households were supplied from wells, and 20 percent of households were supplied from venders. 29.5 percent of households in urban area were supplied form their taps, but 13.9 percent of households in rural area were supplied their taps. 7.1 percent of households belonging with category of poverty were supplied from their taps, but 21.4 percent of households not belonging with the category of poverty were supplied from their taps.

Because of the salty water from all wells in Nouakchott, the city must be supplied drinking water from outside of Nouakchott. Nouakchott is supplied 55,000 tons water every day from the well which was developed by China in Indini which is in 60 kilometers East from Nouakchott. The water is delivered to households by two ways.

- One way is the direct delivery to end users by water pipe. The rate of direct delivery was 33 percent in 2009. Many end users need to keep water in their tank and to pump the water to their taps.
- 67 percent of end users buy water from venders generally. There are water supply facilities called mbalke, along main streets. Mbalkes have overhead water tanks, but the most of facilities keep water in underground tanks because their pumping equipments are out of order. Venders draw up the water by roped buckets from the underground tank and put it into their oil drum. They carry the oil drum on the cart of donkey for delivering to end users.
- All water tanks, such as tanks of end users, tanks of mbalkes and oil drums, have sanitary problem.

Demand for drinking water in Nouakchott is rising together with increasing population. It is impossible to increase supply from Indini. AfDF and 4 Islamic countries set a fund to supply
water from Senegal River to Nouakchott in 2008. The project will be finished in 2010, and the access rate of drinking water is expected to increase from 33 percent to 80 percent after the water pipe will be spread.

(2) Electricity

The gap of penetration rate of electricity between urban area and rural area is so big. In 2004, the rate in Nouakchott was 41 percent but average of the other urban area was over 60 percent. However, the rate of rural area was under 3 percent. It is very hard to collect construction cost of transmission facilities in rural area of lower population density. GOM is installing solar power panels to houses in rural area, and the numbers of houses installed panels were over 4,100 in 2004. The government is planning to construct wind power stations on coast.

There is a thermal power plant in Nouakchott, and the power plant has expanded its power. Furthermore, the transmission of electricity was started from Manantali power station near Senegal River to Nouakchott. However, the supply of electricity in Nouakchott is still not enough to the demand. There are three plans of increasing the supply of electricity in Nouakchott.

- Expanding productivity of the thermal power plant to 130 percent.
- Constructing a new thermal power plant.
- Expanding transmission grid
3. **General Condition of Health Sector**

GOM is coming to grips with improvement in specific health indicators as a core of the anti-poverty. Improvement of living conditions has led to reduced incidence of some infectious diseases and infant mortality decreased. However, there are still lots of problems. For example, access to drinkable water has been still limiting. Infectious diseases such as malaria, measles, meningitis and tetanus, has been still big problem.

GOM is making a big effort to do programs of improving health sector. The purpose of the programs is to promote a balanced improvement of prevention and treatment in health sector. The specific health indicators are decline in maternal mortality and infant mortality.

### Table 3-1 Progress of health sector in PRSP

<table>
<thead>
<tr>
<th>Objectives and performance indicators</th>
<th>Base (Year)</th>
<th>Progress (Year)</th>
<th>2010</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life expectancy at birth (years)</td>
<td>47 (1990)</td>
<td>53.6 (1998)</td>
<td>56</td>
<td>62</td>
</tr>
<tr>
<td>Composite fertility index</td>
<td>5.4 (1998)</td>
<td>4.7 (2000)</td>
<td>4.5</td>
<td>4.0</td>
</tr>
<tr>
<td>Infant mortality rate (per thousand)</td>
<td>105 (1998)</td>
<td>87 (2000)</td>
<td>80</td>
<td>40</td>
</tr>
<tr>
<td>Infant-child mortality rate (per thousand)</td>
<td>137 (1990)</td>
<td>135 (2000)</td>
<td>128</td>
<td>55</td>
</tr>
<tr>
<td>Proportion of one-year-old children immunized against measles</td>
<td>42% (1990)</td>
<td>88% (2004)</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Proportion of births attended by qualified health personnel</td>
<td>40% (1990)</td>
<td>59% (2004)</td>
<td>64%</td>
<td>90%</td>
</tr>
<tr>
<td>HIV/AIDS prevalence rate</td>
<td>0.3% (1992)</td>
<td>0.5% (2000)</td>
<td>&lt;1%</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Proportion of population living within five kilometers of health services</td>
<td>30% (1990)</td>
<td>67% (2004)</td>
<td>77%</td>
<td>100%</td>
</tr>
<tr>
<td>Malnutrition rate (weight for age) among children under the age of five years</td>
<td>23% (1999)</td>
<td>30% (2004)</td>
<td>20%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Source: PRSP action plan 2006-2010

The data of PRSP is the estimated number for grasping the flow. However, the following data is the real number from medical facilities, such as Health Posts, Health Centers and hospitals. So, the numbers of data are different from that of PRSP.
3.1 Access to the Medical Facilities

a. Ease of access to the medical facilities

In PRSP, Target proportion of population living within five kilometers of health services is 100 percent in 2015. The indicator in 2005 was getting worse to 55.36 percent in 2005 against 58.66 percent in 2004.

Figure 3-1 Rate of geographical accessibility to health facilities

Source: Annual Health Report 2005

b. Frequency of access to the medical facilities

Amount of outpatients in 2005 is 1,203,527 persons. The number of receiving medical services per person was getting worse to 0.4 in 2005 against 0.5 in 2004. Generally, increasing number of medical services relates with early diagnosis and early treatment. Actually, some doctors in the field survey said that conditions of the outpatients were getting serious.

Figure 3-2 Utilization of medical service curate

Source: Annual Health Report
3.2 Expectant and Nursing Mothers

Since it is common traditional for pregnant women to deliver babies in their houses, it is too difficult to count the number of expectant and nursing mothers in Mauritania. It is one of big problems for treatment to mothers and babies.

a. Consultation rate of pregnant women

67.34 percent of pregnant women received consultation in medical facilities. It was getting better against 66.34 percent in 2004. Consultation rate of pregnant women living in densely populated Wilaya was higher than it of pregnant women living in thickly peopled Wilaya.

Figure 3-3 Rate of antenatal consultation

![Figure 3-3 Rate of antenatal consultation](source: Annual Health Report)

b. Consultation rate of postnatal women

38.67 percent of postnatal women who had delivered in medical facilities received consultation in medical facilities. It was getting worse against 40.94 percent in 2004.

Figure 3-4 Rate of postnatal consultation

![Figure 3-4 Rate of postnatal consultation](source: Annual Health Report)
c. Parturition

It is one of important medical services for safety delivery to attend by medical workers. The rate of assisted delivery by medical workers was getting much better 46.55 percent in 2005 against 40.08 percent in 2004.

![Figure 3-5 Rate of birth attended](source)

Source: Annual Health Report

d. Medical condition of pregnant women

There are many diseased pregnant women in Assaba and Gorgol Wilaya.

<table>
<thead>
<tr>
<th>Wilaya</th>
<th>Hyper tension</th>
<th>Anemia</th>
<th>Malaria</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEC</td>
<td>120 (6.8%)</td>
<td>589 (5.7%)</td>
<td>736 (13.4%)</td>
<td>676 (10.2%)</td>
</tr>
<tr>
<td>HEG</td>
<td>38 (2.6%)</td>
<td>534 (5.2%)</td>
<td>556 (10.1%)</td>
<td>348 (5.2%)</td>
</tr>
<tr>
<td>Assaba</td>
<td>202 (11.4%)</td>
<td>1,397 (13.5%)</td>
<td>984 (17.9%)</td>
<td>320 (4.8%)</td>
</tr>
<tr>
<td>Gorgol</td>
<td>250 (14.2%)</td>
<td>1,620 (15.7%)</td>
<td>1,432 (26.0%)</td>
<td>1,420 (21.4%)</td>
</tr>
<tr>
<td>Brakna</td>
<td>136 (7.7%)</td>
<td>1,459 (14.1%)</td>
<td>444 (8.1%)</td>
<td>322 (4.8%)</td>
</tr>
<tr>
<td>Trarza</td>
<td>119 (6.7%)</td>
<td>1,336 (12.9%)</td>
<td>194 (3.5%)</td>
<td>70 (1.1%)</td>
</tr>
<tr>
<td>Adrar</td>
<td>2 (0.1%)</td>
<td>55 (0.5%)</td>
<td>1 (0.02%)</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>D. Nouadhibou</td>
<td>103 (5.8%)</td>
<td>154 (1.5%)</td>
<td>10 (0.2%)</td>
<td>130 (2.0%)</td>
</tr>
<tr>
<td>Tagant</td>
<td>4 (0.2%)</td>
<td>104 (1.0%)</td>
<td>24 (0.4%)</td>
<td>8 (0.1%)</td>
</tr>
<tr>
<td>Guidimaka</td>
<td>93 (5.3%)</td>
<td>707 (6.8%)</td>
<td>722 (13.1%)</td>
<td>428 (6.4%)</td>
</tr>
<tr>
<td>Tiris Zemmour</td>
<td>9 (0.5%)</td>
<td>78 (0.8%)</td>
<td>0 (0.0%)</td>
<td>169 (2.5%)</td>
</tr>
<tr>
<td>Inchiri</td>
<td>8 (0.5%)</td>
<td>66 (0.6%)</td>
<td>0 (0.0%)</td>
<td>4 (0.1%)</td>
</tr>
<tr>
<td>Nouakchott</td>
<td>681 (38.6%)</td>
<td>2,234 (21.6%)</td>
<td>398 (7.2%)</td>
<td>2,745 (41.3%)</td>
</tr>
<tr>
<td>National</td>
<td>1,765 (100.0%)</td>
<td>10,333 (100.0%)</td>
<td>5,501 (100.0%)</td>
<td>6,640 (100.0%)</td>
</tr>
</tbody>
</table>

Unit: person
Source: Annual Health Report 2005
e. Maternal mortality rate

The high maternal mortality is the major feature of Mauritania. Target rate of maternal mortality rate in PRSP is 300 per hundred thousand in 2015. The rate of estimated in Mauritania was 820 in 2005. The rate in Mauritania was the highest in it of member countries of AMU. For examples, the rate was 97 in Libya, 100 in Tunisia, 180 in Algeria and 240 in Morocco.

The rate was 0.20 percent of delivery in medical facilities. It means that the medical service for delivery is very important.

3.3 Reproductive Health

Target birthrate in PRSP is 4.0 in 2015. However, the rate was 4.7 in 2000. There was 1.93 percent family to use contraception in all households. The major methods of contraception were pills (53.71 percent), injectables (26.03 percent), condom (12.57 percent), intrauterine devices (2.44 percent) and spermatocids (0.52 percent).
3.4 Vaccination of the Women

Vaccination of the women is one of important subjects to decrease the maternity mortality rate. The rate of vaccination of childbearing women was much lower than the rate of vaccination of pregnant women.

a. Women of childbearing age

The coverage of tetanus vaccination 1 (VAT1) among women of childbearing age was getting worse 5.84 percent in 2005 against 7.88 percent in 2004. The rate of Gorgol Wilaya was very low.

Figure 3-8 Coverage rate of VAT1 in women of childbearing age

Source: Annual Health Report 2005

The coverage of tetanus vaccination 2 (VAT2) among women of childbearing age was 7.67 percent in 2005. The rate of Gorgol Wilaya was very low.

Figure 3-9 Coverage rate of VAT2 in women of childbearing age

Source: Annual Health Report 2005
b. Pregnant women

The coverage of tetanus vaccination 1 (VAT1) among pregnant women was getting better 34.0 percent in 2005 against 33.17 percent in 2004. The rate of Inchiri Wilaya was very low.

Figure 3-10 Coverage rate of VAT1 in pregnant women

Source: Annual Health Report 2005

The coverage of tetanus vaccination 2 (VAT2) among pregnant women was getting better 34.2 percent in 2005 against 33.46 percent in 2004. The rate of Nouadhibou Wilaya was very high.

Figure 3-11 Coverage rate of VAT2 in pregnant women

Source: Annual Health Report 2005
3.5 Newborn Babies

Target rate of infant mortality in PRSP is 80 per thousand in 2010 and 40 in 2015. The rate was 87 in 2000. It is very tough to carry out the targets. However, the rate in medical facilities was much better than that of the other. To expand facilities and education are important subjects.

a. Stillbirth

Fetal death rate in delivery in medical facilities was 1.7 percent in 2005. The rates of Gorgol and Adrar Wilaya were very low.

![Figure 3-12 Stillbirth rate](source: Annual Health Report 2005)

b. Neonatal mortality

Neonatal mortality rate in medical facilities was 0.03 percent against 0.05 percent in 2004. The rate of Inchiri Wilaya was very high.

![Figure 3-13 Neonatal mortality rate](source: Annual Health Report 2005)
c. Vaccination of babies under 12 months

Target of Proportion of one-year-old children immunized against measles in PRSP is 100 percent after 2010. Estimated rate in PRSP was 87.6 percent in 2004, but the rate in Annual Health Report 2005 was 61 percent in 2005. According to Country Health System Fact sheet 2006 by WHO, the rate was 64 percent in 2004. It means that the rate in PRSP has possibilities to be estimated too large. So, it seems very tough to carry out the targets.

Table 3-3 Coverage rate of immunization in babies under 12 months

<table>
<thead>
<tr>
<th>Wilaya</th>
<th>BCG</th>
<th>Polio 3</th>
<th>DTC3</th>
<th>Measles</th>
<th>Hepatitis B</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEC</td>
<td>89%</td>
<td>72%</td>
<td>71%</td>
<td>61%</td>
<td>44%</td>
</tr>
<tr>
<td>HEG</td>
<td>79%</td>
<td>66%</td>
<td>66%</td>
<td>50%</td>
<td>41%</td>
</tr>
<tr>
<td>Assaba</td>
<td>107%</td>
<td>89%</td>
<td>87%</td>
<td>78%</td>
<td>51%</td>
</tr>
<tr>
<td>Gorgol</td>
<td>82%</td>
<td>76%</td>
<td>78%</td>
<td>57%</td>
<td>48%</td>
</tr>
<tr>
<td>Brakna</td>
<td>88%</td>
<td>74%</td>
<td>74%</td>
<td>66%</td>
<td>58%</td>
</tr>
<tr>
<td>Traarzra</td>
<td>64%</td>
<td>54%</td>
<td>55%</td>
<td>52%</td>
<td>17%</td>
</tr>
<tr>
<td>Adrar</td>
<td>85%</td>
<td>58%</td>
<td>58%</td>
<td>59%</td>
<td>48%</td>
</tr>
<tr>
<td>Nouadhibou</td>
<td>89%</td>
<td>86%</td>
<td>86%</td>
<td>75%</td>
<td>46%</td>
</tr>
<tr>
<td>Tagant</td>
<td>70%</td>
<td>63%</td>
<td>65%</td>
<td>57%</td>
<td>41%</td>
</tr>
<tr>
<td>Guidimaka</td>
<td>107%</td>
<td>70%</td>
<td>70%</td>
<td>68%</td>
<td>26%</td>
</tr>
<tr>
<td>Tirz Zemmour</td>
<td>67%</td>
<td>54%</td>
<td>55%</td>
<td>52%</td>
<td>51%</td>
</tr>
<tr>
<td>Inchiri</td>
<td>50%</td>
<td>57%</td>
<td>57%</td>
<td>40%</td>
<td>40%</td>
</tr>
<tr>
<td>Nouakhott</td>
<td>93%</td>
<td>70%</td>
<td>70%</td>
<td>60%</td>
<td>44%</td>
</tr>
<tr>
<td>National</td>
<td>87%</td>
<td>71%</td>
<td>71%</td>
<td>61%</td>
<td>42%</td>
</tr>
</tbody>
</table>

Source: Annual Health Report 2005

3.6 Infants

Decreasing infant mortality rate is one of important theme for GOM. Coverage rate of medical consultation and malnutrition rate, among children under the age of five years are very important indicators related with infant mortality rate.

a. Medical consultation of infants

The rate of medical consultation in medical facilities was getting better 14.31 percent in 2005 against 13.68 percent in 2004. However, most of rates of medical examination of infants are very low. Only the rate in Adrar Wilaya was over 50 percent.
b. Nutritional condition of infants

The rate of malnutrition among outpatient children under the age of five years in medical facilities was getting worse 1.61 percent in 2005 against 0.6 percent in 2004. The rate of Brakna Wilaya was very high.

![Figure 3-14 Rate of medical examination among children under 5 years](source: Annual Health Report 2005)

![Figure 3-15 Global malnutrition among children less than 5 years](source: Annual Health Report 2005)

The rate of severe malnutrition among outpatient children under the age of five years in medical facilities was stabling 0.83 percent against 0.85 percent in 2004.

c. Severe nutritional condition of infants

The rate of severe malnutrition among outpatient children under the age of five years in medical facilities was stabling 0.83 percent against 0.85 percent in 2004.
3.7 Infectious Disease

There was less incidence of infection in dry Wilaya more than it in rainy Wilaya such as HEC, HEG, Assaba, Gorgol, Brakna, Trarza and Guidimaka.

Table 3-4 Number of patients and deceased with epidemics

<table>
<thead>
<tr>
<th>Wilaya</th>
<th>Malaria</th>
<th>Acute respiratory infection</th>
<th>Diarrhea</th>
<th>Cholera</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Patients</td>
<td>Deceased</td>
<td>Patients</td>
<td>Deceased</td>
</tr>
<tr>
<td>HEC</td>
<td>35,294</td>
<td>7</td>
<td>21,608</td>
<td>2</td>
</tr>
<tr>
<td>HEG</td>
<td>29,090</td>
<td>1</td>
<td>19,946</td>
<td>4</td>
</tr>
<tr>
<td>Assaba</td>
<td>44,740</td>
<td>0</td>
<td>30,716</td>
<td>1</td>
</tr>
<tr>
<td>Gorgol</td>
<td>28,663</td>
<td>1</td>
<td>22,336</td>
<td>0</td>
</tr>
<tr>
<td>Brakna</td>
<td>27,207</td>
<td>2</td>
<td>19,526</td>
<td>1</td>
</tr>
<tr>
<td>Trarza</td>
<td>14,428</td>
<td>12</td>
<td>25,503</td>
<td>1</td>
</tr>
<tr>
<td>Adrar</td>
<td>726</td>
<td>0</td>
<td>5,035</td>
<td>0</td>
</tr>
<tr>
<td>Nouadhibou</td>
<td>292</td>
<td>0</td>
<td>5,464</td>
<td>0</td>
</tr>
<tr>
<td>Tagant</td>
<td>5,804</td>
<td>0</td>
<td>6,788</td>
<td>3</td>
</tr>
<tr>
<td>Guidimaka</td>
<td>26,014</td>
<td>17</td>
<td>12,931</td>
<td>1</td>
</tr>
<tr>
<td>Tiris Zemmour</td>
<td>78</td>
<td>0</td>
<td>2,535</td>
<td>0</td>
</tr>
<tr>
<td>Inchiri</td>
<td>216</td>
<td>0</td>
<td>1,001</td>
<td>0</td>
</tr>
<tr>
<td>Nouakchott</td>
<td>10,920</td>
<td>0</td>
<td>52,968</td>
<td>0</td>
</tr>
<tr>
<td>National</td>
<td>223,472</td>
<td>40</td>
<td>226,357</td>
<td>13</td>
</tr>
</tbody>
</table>

Unit: person
Source: Annual Health Report 2005
3.8 HIV/AIDS

Number of infected patients with HIV/AIDS increased to 536 patients in the end of 2005 from 197 patients in the end of 2004. 362 people infected and 23 patients were died in 2005. 83 percent of patients were aged between 16 years and 49 years.

Comparing the rate of HIV prevalence among adults (aged 15-19 years) was 0.6 percent in 2003. It was much better than that in average in Africa (7.1 in 2003).

Source: Annual Health Report 2005
4. Request from the Government of Mauritania

GOM has requested two kinds of projects to the embassy of Japan in Nouakchott at December 24th 2009. The followings are the outline of the requests. The details are referred to Appendix 6 and 7.

4.1 Construction and Equipping of Schools of Public Health

a. Contents of the request

- Constructing new school buildings for ENSP and ESPN.
- Furnishing equipments for ENSP and ESPN.

b. Amount of grant aid requested

- ENSP: 7 millions USD for construction and 1 million USD for equipments.
- ESPN: 4 millions USD for construction and 1 million USD for equipments.
- Amount: 11 millions USD for construction and 2 million USD for equipments.

4.2 Feasibility Study for the Development of Health Sector

- Study for stable public health education both in quantity and quality, for example getting hold of teachers, revising curriculum, re-training and advanced training.
- Study for strategy of supporting health / medical sector in regions.
- Study for repletion of equipments in schools of public health and training hospitals.
- Study for technical support to school of public health.
5. **Direction of the Future Support**

Ministry of Foreign Affairs in Japan and JICA have already started to examine the requests from the GOM. Regarding our proposed projects, the supports related with human resource development in health sector from Japan to Mauritania will be grant aid and technical supports.

Most of import goods from Mauritania to Japan are marine products now. However, Mauritania has plenty of materials of iron, copper, oil and natural gas. It means that Mauritania has large potential in future. Japan also should make deep relationship with Mauritania through the aggressive support for stability of economic and social situation in Mauritania. Mauritania is a great valuable country.
6. Cooperation for Sustainable Economic Growth

Mauritania should be keeping sustainable economic growth to 2030 which is the final target year of PRSP. Following programs of health sector are the programs to achieve strategic theme of PRSP “Anchoring growth in sectors from which the poor derive direct benefit” and “Developing human resources and improving access to basic services”.

6.1 Economic Growth in the poor

(1) Basic idea

- Change the development policy from “Supply-Driven” to “Demand-Pull”.
- Change the development policy from “Points” to “Area”.
- “Numbers of People” is absorbing power of “Goods” and “Money”.

(2) Development Strategy

- The program supports to realize the medical/health and education policy and the sustainable development system in long term basis.
- Since medical facilities and school are located at the densely populated areas, these facilities will function as the regional development core on the program.
- The program supports social infrastructure improvement and human resource development.
- The program supports the micro-enterprise development.

![Figure 6-1 Framework of regional health development](image-url)
6.2 Human Resource Development

The program improves health services that are basic social services, through the human resource development in the health sector. Especially, development of nurses and midwives who are core workers in Health Posts and Health Centers is very important.

- Expanding the facilities of the school of public health for increasing the enrollment capacity.
- Expanding the equipments in the school of public health for improving the quality of education.
- To promote ensuring teachers and revising curriculum for providing stable education in both quantity and quality.
- Expanding the equipments in training hospitals for providing high level training in both quantity and quality.
- The program of human resource development includes retraining and advanced training.

Figure 6-2 Framework of human resource development in health sector
7. **Proposed Project Design**

We consider that one of the most important points of the sustainable economic growth in Mauritania is the development of regional health sector. However, we consider that the requests from the GOM to the government of Japan are not enough to realize the sustainable growth, because the requests are lacking the viewpoints about the medium and long term development of strategy.

Under the programs of health sector to achieve strategic theme of PRSP, we propose “urgent projects”, “short term projects” and “medium and long term projects”. The projects includes following view points for supporting from JICA.

- Human resource development
- Employment
- Management of facilities
- Regional health system
- Community development

7.1 **Urgent Projects (~ 2012)**

Supporting to ENSP and ESPN for developing nurses and midwives is one of the most important measures for enhancing health care services.

a. **Supporting to ENSP**

- Expanding a facility for increasing the enrollment capacity.
- The facility includes drinking water supply and energy supply, such as wells and solar power generators.
- Expanding equipments for improving the quality of education.

b. **Supporting to ESPN**

- Establishing ESPN including to building a facility and to implementing equipments.
- The facility includes drinking water supply and energy supply, such as wells and solar power generators

7.2 **Short Term Projects (~ 2015)**

During the implementation of the urgent projects, programs for improving education systems
in the schools of public health and training hospitals must be established. The programs should be enforced as soon as possible after the urgent projects.

a. Programs for improving education system in the school of public health

- To promote getting hold of knowledge full teachers and revising curriculum, for providing stable education both in quality and quantity.
- The revised curriculum must include retraining and advanced training.
- The Programs should consider the establishment of cooperation with WHO, EU countries and semi-developed countries.

b. Programs for improving education system in the training hospitals

- Creating collaboration network of tertiary level hospitals for stable training.
- Expanding the equipments in training hospitals for providing high level training in both quality and quantity.

7.3 Medium and Long Term Projects (~ 2020)

Promoting the expansion of basic social services in the region through enhancing regional health services.

a. Support to regional health services

- The most important things to promote the anti-poverty activities are to supply enough health staffs to regional core hospitals and to improve their working environments in the hospitals.
- To improve the working environments should expand the facilities and equipments of regional core hospitals. It means the same as improving the environments for patients.
- The improvement includes lifeline facilities which are drinking water supply and energy supply. The facilities of drinking water supply are wells and water purification facilities. The facilities of energy supply are solar power generators and wind power generators.

b. Support to regional health development

- Expanding the improvement of health care services to PS and CS. The improvement includes deploying health staffs and expanding facilities and equipments.
- Improving the lifeline infrastructure in the local area. The lifeline infrastructure includes water purification plants, water pipe, power plants, and power transmission facilities.
- For regional economic development, implementing microfinance system for self-employment and small business.
- To support improvement of basic economic environment for Japanese enterprises which make business in bottom of pyramid.

(END)
## Appendix 1. Data of Population

### Spread of population (Year of 2000)

<table>
<thead>
<tr>
<th>Wilaya</th>
<th>Settlement (person)</th>
<th>Nomad (person)</th>
<th>Amount (C) (person)</th>
<th>Settlement / Amount (%)</th>
<th>Wilaya / National (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEC</td>
<td>240,918</td>
<td>34,370</td>
<td>275,288</td>
<td>87.5</td>
<td>10.8</td>
</tr>
<tr>
<td>HEG</td>
<td>199,166</td>
<td>20,001</td>
<td>219,167</td>
<td>90.9</td>
<td>8.6</td>
</tr>
<tr>
<td>Assaba</td>
<td>238,636</td>
<td>10,960</td>
<td>249,596</td>
<td>95.6</td>
<td>9.8</td>
</tr>
<tr>
<td>Gorgol</td>
<td>244,751</td>
<td>4,229</td>
<td>248,980</td>
<td>98.3</td>
<td>9.8</td>
</tr>
<tr>
<td>Brakna</td>
<td>222,117</td>
<td>18,050</td>
<td>240,167</td>
<td>92.5</td>
<td>9.4</td>
</tr>
<tr>
<td>Trarza</td>
<td>238,299</td>
<td>14,365</td>
<td>252,664</td>
<td>94.3</td>
<td>9.9</td>
</tr>
<tr>
<td>Adrar</td>
<td>54,916</td>
<td>5,931</td>
<td>60,847</td>
<td>90.3</td>
<td>2.4</td>
</tr>
<tr>
<td>D. Nouadhibou</td>
<td>74,414</td>
<td>1,562</td>
<td>75,976</td>
<td>97.9</td>
<td>3.0</td>
</tr>
<tr>
<td>Tagant</td>
<td>55,643</td>
<td>6,341</td>
<td>61,984</td>
<td>89.8</td>
<td>2.4</td>
</tr>
<tr>
<td>Guidimaka</td>
<td>183,556</td>
<td>3,141</td>
<td>186,697</td>
<td>96.8</td>
<td>7.3</td>
</tr>
<tr>
<td>Tiris Zemmour</td>
<td>51,290</td>
<td>2,296</td>
<td>53,586</td>
<td>95.7</td>
<td>2.1</td>
</tr>
<tr>
<td>Inchiri</td>
<td>9,559</td>
<td>1,763</td>
<td>11,322</td>
<td>84.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Nouakchott</td>
<td>611,883</td>
<td>—</td>
<td>611,883</td>
<td>100.0</td>
<td>24.0</td>
</tr>
<tr>
<td>National</td>
<td>2,425,148</td>
<td>123,009</td>
<td>2,548,157</td>
<td>95.2</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Preliminary Results of the third General Census of Population and Housing 2000

### Population density (Compare year of 2000 and 2008)

<table>
<thead>
<tr>
<th>Wilaya</th>
<th>Area (km²)</th>
<th>Population (person)</th>
<th>Population density (person/km²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEC</td>
<td>182,700</td>
<td>281,600</td>
<td>345,335</td>
</tr>
<tr>
<td>HEG</td>
<td>53,400</td>
<td>212,156</td>
<td>255,817</td>
</tr>
<tr>
<td>Assaba</td>
<td>36,600</td>
<td>242,265</td>
<td>291,736</td>
</tr>
<tr>
<td>Gorgol</td>
<td>13,600</td>
<td>242,711</td>
<td>288,458</td>
</tr>
<tr>
<td>Brakna</td>
<td>33,000</td>
<td>247,006</td>
<td>288,693</td>
</tr>
<tr>
<td>Trarza</td>
<td>67,800</td>
<td>268,220</td>
<td>296,995</td>
</tr>
<tr>
<td>Adrar</td>
<td>215,300</td>
<td>69,542</td>
<td>73,903</td>
</tr>
<tr>
<td>D. Nouadhibou</td>
<td>17,800</td>
<td>79,516</td>
<td>118,159</td>
</tr>
<tr>
<td>Tagant</td>
<td>95,200</td>
<td>76,620</td>
<td>82,925</td>
</tr>
<tr>
<td>Guidimaka</td>
<td>10,300</td>
<td>177,707</td>
<td>209,389</td>
</tr>
<tr>
<td>Tiris Zemmour</td>
<td>258,580</td>
<td>41,121</td>
<td>54,121</td>
</tr>
<tr>
<td>Inchiri</td>
<td>46,300</td>
<td>11,500</td>
<td>9,936</td>
</tr>
<tr>
<td>Nouakchott</td>
<td>1,000</td>
<td>558,195</td>
<td>846,871</td>
</tr>
<tr>
<td>National</td>
<td>1,030,700</td>
<td>2,508,159</td>
<td>3,162,338</td>
</tr>
</tbody>
</table>

Source: Annual Report 2008
<Appendix 2. Summary of Field Survey>

1. Central Government

(1) Ministry of Economic Development Affairs (MAED)

- Position: MAED is the ministry making of final decision about the request of foreign aid.
- Priority area: Nouakchott and HEC are very important region for Mauritania. Because the population of Nouakchott is increasing rapidly, it must be maintained social services. Since HEC has not been developed enough, it must be developed quickly. So, MAED will choose projects related with Nouakchott and HEC.

(2) Ministry of Environment

- Criterion of environmental assessment: If the health facilities come under installing X-ray machines, throwing waste and dirty water from examinations activities, and discharging noise and waste from construction, there are possibilities having to do environmental assessment.

2. Tertiary Level Hospitals

(1) CHN (The National Health Center)

- Position: CHN is the summit of hospitals in Mauritania and one of training hospitals for ENSP. CHN is managing 400 beds and examining 600 outpatients every day.
- Medical equipments: Most of equipments in CHN are too old. For example, CHN is still using equipments for newborn babies donated from Japan in 1993.
- Medical staffs: Lacking of medical staffs is the most critical problem. And unsatisfactory retraining program for staffs is also severe problems. So, patients of serious burn should have carried to Morocco frequently.

(2) HME (The Mother-Child Hospital)

- Position: HME is rebuilding from the official residence of prime minister by the command of President Aziz. It has opened tentatively in December 13th, 2009. It is managing 134 beds currently and is going to manage 250 beds in June, 2010. HME is the summit of hospitals for pregnant women, nursing mothers and babies. It is expected as training hospitals of obstetrical and pediatrics.
- Current situation: Most of facilities are under construction, such as laboratory, X-ray
rooms and operating rooms. It has outside slope to upstairs balcony, since the original building had had no elevators and escalators. Not only facilities and equipments, but also medical staffs including doctors are not enough.

3. Regional Government and Hospital in Wilaya

(1) Regional health department of Trarza Wilaya

- **Structure:** Medical services in Trarza Wilaya are made up of three-layer structure headed by Regional Center Hospital at Rosso.

<table>
<thead>
<tr>
<th>Category</th>
<th>Facilities</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wilaya</td>
<td>Regional Center Hospital</td>
<td>Rosso</td>
</tr>
<tr>
<td>Moughataa (6)</td>
<td>Department Hospital</td>
<td>Boutilimit (built by Qatar)</td>
</tr>
<tr>
<td></td>
<td>Health Center</td>
<td>6 Health Centers</td>
</tr>
<tr>
<td>Village (584)</td>
<td>Health Post</td>
<td>74 Health Posts (61% covered among 5km)</td>
</tr>
</tbody>
</table>

- **Water Supply:** There is enough water from Senegal River in Trarza Wilaya. However, there are not enough apparatuses for purifying. Lots of people are affect diarrhea, parasites and infectious for drinking water of the river directly. The Wilaya must keep not only water purification facilities but also health education.

- **IMS:** The Health Posts managed by IMS, have a look at 132,000 patients per year. Since one of IMS must manage 8 Health Posts, 7 Health Posts are always closed under the IMS. Because there are so many poverty residences in Trarza Wilaya, a lot of outpatient does not have a consultation with doctor, and becomes serious condition. Increasing IMS is important to reduce the risked patients through making the round of covered area by Health Posts.

(2) Regional Center Hospital at Rosso

- **Over view:** Regional Center Hospital at Rosso was constructed by France in 1945. The hospital is managing 55 beds and examining 300 outpatients per day. The hospital should be expanded the facility for increasing number of beds to 70. However, it is very hard to expand the facility since it locates downtown. Furthermore, the environment of the hospital is getting worse by the location near the market. There is a plan to move to East side of city, but no one knows when the plan is going to be realized.

- **Obstetrical section:** The hospital is managing only 8 obstetrical beds, but the hospital
must examine 8 outpatients every day. It is not so good for pregnant women and nursing mothers. Maternal mortality rate of Rosso is the highest in Mauritania. Spain has just started actions to decrease the rate.

- Pediatrics department: Because there is no pediatrics doctor in the hospital, every child patients in serious condition have to carry to Nouakchott or Dakar now.
- Infectious disease: There are many malaria patients in Trarza Wilaya, the hospital doesn’t have high quality equipments to inspect malaria correctly. Some patients become worse during our waiting for isolation of the germ in Nouakchott or Dakar.
< Appendix 3. Photos of ENSP >

1. Overview

2. Laboratory

3. Practice room

4. Library

5. Lecture hall

6. Class room
< Appendix 4. Photos of CHN >

1. Overview

2. Renal dialysis room

3. Laboratory

4. Equipment donated by Japan in 1993

5. NICU
<Appendix 5. Photos of HME>

1. Overview

2. X-ray house

3. Laboratory house

4. Washing house

5. Slope to upstairs (front)

6. Slope to upstairs (side)
<Appendix 6. Photos of Regional Center Hospital at Rosso>

1. Hospital pharmacy

2. Operation room

3. Delivery room

4. Treatment room for maternity

5. Old X-ray apparatus

6. New X-ray apparatus
Requête pour la coopération financière non remboursable du japon pour la construction et l’équipement de deux (2) écoles de santé publique en Mauritanie

Décembre 2009
1. **Date** : 15 décembre 2009

2. **Pays** : République Islamique de Mauritanie

3. **Titre de projet** : Construction et équipement de deux (2) écoles de santé publique

4. **Secteur** : Santé

5. **Type de projet** : Social

6. **Sites du projet** : Nouakchott et Néma

7. **Coût total du projet** : 13 000 000 $US

   7.1. Construction: 11 000 000 $US  
   7.2. Equipement: 2 000 000 $US

8. **Année de réalisation souhaitée** :

   8.1. Début des travaux : mi 2010  
   8.2. Fin des travaux: 2012

9. **Organisme d'exécution** :

   **Ministère** : Ministère de la Santé  
   **Agence** : Direction des Infrastructures, des Equipements et du Matériel (DIMM)  
   **Responsable** : Mme Roughaya Mint Habott  
   Directrice de la DIMM  
   Téléphone/fax : 00 (222) 525 05 89  
   BureauPortable : 00 (222) 226 03 12  
   **E-mail** : hroughaya@yahoo.fr

10. **Contexte/Justification** :

    La République Islamique de Mauritanie (RIM) est un vaste pays (1.030.700 km²) de l'Afrique de l'ouest désertique à plus de 80%. Sa situation géo-climatique (prédominance de zones et de périodes arides) rend les conditions de travail des personnels de santé aux niveaux périphériques difficilement supportables : isolement et difficultés de communication, fluctuations
thermiques importantes entre saisons, et même entre le jour et la nuit, rareté de l’eau et absence d’électricité ou d’autre source d’énergie,…etc.

La population mauritanienne est estimée à 3 104 950 habitants en 2009 avec un taux d’accroissement de 2,6% et une densité de 2,4%. Cette population est essentiellement concentrée au sud et dans les grands centres urbains. Elle est à majorité jeune (54% de moins de 20%) avec un léger surnombre des femmes (51,3%). L’indice synthétique de fécondité (4,7) — inférieure à la moyenne sous-régionale — et l’analyse des tendances populationnelles montre que la Mauritanie a entamé la transition démographique, avec une réduction progressive de la natalité et une meilleure maîtrise de la fécondité.

L’amélioration de la situation sanitaire cache d’importantes disparités entre groupes socio-économiques ; en effet, les indicateurs de santé restent particulièrement inquiétants en milieu rural, dans les groupes les plus pauvres et ceux à faible niveau d’éducation. L’analyse des indicateurs de santé par groupe socio-économiques permet de distinguer trois groupes :

- Dans le quintile le plus riche, les indicateurs de santé sont en décalage positif et la dynamique vers l’atteinte des objectifs du millénaire semble bien engagée ;
- Dans les 40% à revenu moyen, les indicateurs restent médiocres avec une dynamique positive qui nécessite d’être renforcée.
- Enfin pour les 2/5 les plus pauvres, les indicateurs sont extrêmement faibles et des actions plus particulières et plus ciblées sont indispensables pour leur intégration dans la dynamique des groupes précédents.

Il existe également des disparités régionales : certaines régions comme les régions du sud, du sud-est et du centre font face à des défis particuliers avec des indicateurs de santé — mortalité, malnutrition et fécondité — significativement plus médiocres que la moyenne nationale. Les différentiels en termes de revenus des ménages et d’éducation des mères expliquent en grande partie ces disparités. Mais l’accès aux services, en particulier aux services de prise en charge et de suivi des enfants, et d’accouchements

1 RGPH 2000 ; estimation
2 DRH, requête : août 2009
3 Taux d’accroissement de la population en diminution : 2,3% en 2000 contre 2,9% en 1988
4 PSDRH 2006-2015, Draft 5 ; janvier 2006 ; MS
assistés, joue également un rôle important.

Donc, la dynamique des indicateurs est positive mais des progrès considérables, en particulier en ce qui concerne la mortalité maternelle et périmatérale, restent à fournir pour que la Mauritanie atteigne les Objectifs du Millénaire pour le Développement en 2015.

La disponibilité et l’efficacité des ressources humaines, et de la formation continue constituent un défi majeur pour la fonctionnalité des structures existantes et celles à construire pour améliorer la couverture sanitaire.

11. Présentation du système de santé en Mauritanie :

Le système de soins publics, qui suit le découpage administratif, est constitué de trois niveaux de prestations, à savoir :

**Le niveau périphérique** (Moughataa): 522 postes de santé, 71 centres de santé et 2 hôpitaux de Moughataa. En appui à ce niveau, des unités de santé de base (USB) qui sont installées dans une partie non négligeable des agglomérations villageoises éloignées des postes et centre de santé ;

**Le niveau intermédiaire** où se trouvent les hôpitaux régionaux au niveau des chefs lieu des Wilayas (5 hôpitaux régionaux et 6 centres hospitaliers à caractère administratif);

**Le niveau tertiaire** qui comprend 14 établissements publics de référence y compris l’hôpital militaire dont 4 établissements spécialisés (Oncologie, Cardiologie, Neuropsychiatrie et kinésithérapie)

S’y ajoutent : deux établissements nationaux de formation (1 à Nouakchott et 1 à Kiffa (600 km à l’Est de Nouakchott sur la route de l’espoir) et trois établissements nationaux (Recherche en santé publique, Contrôle de qualité de médicament et Approvisionnement en médicaments essentiels et consommables médicaux.

Par ailleurs, il faut rappeler l’existence d’un secteur privé de santé qui connaît un développement et qui vient en appoint au secteur public dans le cadre de la couverture sanitaire.

Ce système de santé est appuyé et coordonné par une structure administrative hiérarchisée structurée en 8 directions centrales, 1 inspection au niveau central, 13 directions régionales et 53 circonscriptions sanitaires de Moughataa.
Au vu du système de santé, la situation des ressources humaines reste préoccupante malgré les efforts fournis en la matière. L’analyse de la situation actuelle montre qu’il existe un déficit en personnel à tous les niveaux. Le constat unanimement partagé est que la grande majorité des structures de santé du niveau primaire ne répond pas aux normes en personnel (73% des postes de santé et 57% des centres de santé). Cette situation est due, en partie, au manque de cohérence entre le Plan de Développement des Infrastructures Sanitaires (PDIS) et le Plan de Développement des Ressources Humaines (PDRH).

12. Objectifs du projet :

12.1. Objectif général

Assurer la formation initiale et continue des ressources humaines de santé en quantité et qualité

12.2. Objectifs spécifiques :

Construire des locaux équipés et adaptés à la formation en santé publique,
Adapter les programmes en vigueur aux normes de qualité de soins,
Réduire sensiblement le gap en ressources humaines qualifiées d’ici 2015

13. Description du projet:

Le défi majeur est de produire et rendre disponibles et accessibles, partout où besoin est, les ressources humaines nécessaires et motivées, en quantité et en qualité suffisantes le plus rapidement possible afin que les objectifs de la politique nationale de santé 2006-2015 soient atteints. En effet, tout retard dans cette production ou toute insuffisance de qualité constituera un handicap national sérieux à l’atteinte des objectifs de ladite politique influenceurait négativement, en conséquence, l’atteinte des objectifs du CSLP et, par la suite, les OMD.

C’est dans ce cadre que le Ministère de la Santé a créé en 2008 une deuxième école de santé publique à Kiffa en compte réaliser deux nouvelles écoles de grandes capacités afin de répondre dans un proche avenir aux besoins accru en personnels de santé qualifiés. La présente requête adressée au financement de la JICA vise le financement d'un projet de construction et d'équipement de deux (2) écoles de santé publique : une à Nouakchott (Capitale politique de la Mauritanie et une à Néma (Wilaya du Hodh Echarghi).
Le besoin en infrastructures et équipement est estimé pour *Chacune* des deux (2) écoles se trouvent en annexes.
### ANNEXE I. CONSTRUCTION

#### 1.1. Ecole de santé de Nouakchott

<table>
<thead>
<tr>
<th>Désignation</th>
<th>Quantité</th>
</tr>
</thead>
<tbody>
<tr>
<td>- salles de cours <em>(capacité de 50 élèves)</em></td>
<td>30</td>
</tr>
<tr>
<td>- Bloc administratif de 19 bureaux</td>
<td>19</td>
</tr>
<tr>
<td>- Salles de réunion</td>
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</tr>
<tr>
<td>- Salles de travaux pratiques</td>
<td>06</td>
</tr>
<tr>
<td>- Amphithéâtre d'une capacité de 400 personnes</td>
<td>01</td>
</tr>
<tr>
<td>- Amphithéâtres d'une capacité de 200 personnes</td>
<td>02</td>
</tr>
<tr>
<td>- Magasins <em>(grande capacité)</em></td>
<td>02</td>
</tr>
<tr>
<td>- Salles de laboratoires</td>
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</tr>
<tr>
<td>- Bibliothèque</td>
<td>01</td>
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<tr>
<td>- Salle d’archives</td>
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</tr>
<tr>
<td>- Salle d’informatique</td>
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<tr>
<td>- Salle d’audiovisuelle</td>
<td>01</td>
</tr>
<tr>
<td>- Salles de professeurs</td>
<td>03</td>
</tr>
<tr>
<td>- Salle de reprographie</td>
<td>01</td>
</tr>
<tr>
<td>- Blocs sanitaires <em>(hommes et femmes)</em></td>
<td>02</td>
</tr>
<tr>
<td>- salles vestiaires <em>(hommes et femmes)</em></td>
<td>02</td>
</tr>
<tr>
<td>- Cafeteria/buvette/restaurant</td>
<td>01</td>
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<tr>
<td>- Infirmerie</td>
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<tr>
<td>- Salle de conférence</td>
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</tr>
<tr>
<td>- Dortoir Hommes et Femmes (capacité de 300 personnes)</td>
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</tr>
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<td>- Parking</td>
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</tr>
<tr>
<td>- Logements pour la direction</td>
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<tr>
<td>- Logement du gardien</td>
<td>01</td>
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<tr>
<td>- Buanderie</td>
<td>01</td>
</tr>
<tr>
<td>- Espace aménagé pour le sport</td>
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<tr>
<td>- Clôture</td>
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1. 2. École de santé Néma

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<td>· Bloc administratif de 19 bureaux</td>
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<td>· Salles de réunion</td>
<td>01</td>
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<tr>
<td>· Salles de travaux pratiques</td>
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<tr>
<td>· Amphithéâtre <em>d'une capacité de 200 personnes</em></td>
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<td>· Amphithéâtres <em>d'une capacité de 100 personnes</em></td>
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<tr>
<td>· Magasins <em>(grande capacité)</em></td>
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<td>· Salles de laboratoires</td>
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<td>· Salle de reprographie</td>
<td>01</td>
</tr>
<tr>
<td>· Blocs sanitaires <em>(hommes et femmes)</em></td>
<td>02</td>
</tr>
<tr>
<td>· salles vestiaires <em>(hommes et femmes)</em></td>
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<tr>
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<td>· Salle de conférence</td>
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</tr>
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<td>· Dortoir Hommes et Femmes <em>(Bloc de capacité de 300 personnes)</em></td>
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</tr>
<tr>
<td>· Parking</td>
<td>01</td>
</tr>
<tr>
<td>· Logements pour la direction</td>
<td>04</td>
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<td>· Logement du gardien</td>
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<td>· Espace aménagé pour le sport</td>
<td>02</td>
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<tr>
<td>· Clôture</td>
<td>01</td>
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</tbody>
</table>
ANNEXE II. EQUIPEMENTS

2.1. Equipement type pour la nouvelle Ecole de Santé Publique à Nouakchott

L’équipement ci-après doit être prévu pour chaque local :

Pour une seule salle de cours (30 salles)
- Un Data show et un ordinateur portable
- Un téléprojecteur
- Un écran pliable
- Un tableau magnétique
- Un support Flip Chart
- 40 tables bancs
- Un bureau pour le professeur

Pour une seule salle de travaux pratiques (6 salles)
- Manéquin pour simulation des différentes injections (IV, IM, S/C, IDR et perfusion)
- Manéquin : simulateur pour la prise de sang
- Manéquin : simulateur d’accouchement
- Manéquin : simulateur de soins obstétrico-gynécologique
- Manéquin : simulateur de soins chirurgicaux
- Instruments pour la petite chirurgie
- Instruments pour l’obstétrique et la gynécologie
- Trousse de diagnostic pour l’otolaryngologie
- Sphygmomanomètre portable de mercure
- Thermomètre clinique
- Thermomètre clinique pour le rectum
- Instrument de mesure de taille pour adulte
- Instrument de mesure de taille pour enfant
- Étage pour le matériel
- Balance pour enfant
- Montre chrono
- Otoclave
- Appareil de distillation
- Armoire pour les instruments
- Poubelle
• Lit pour malade

Pour la salle informatique
• 80 unités informatiques complètes
• 80 tables d'ordinateurs
• 80 chaises
• 1 bureau pour le responsable

Pour la salle d’audio-visuelle
• 8 photocopieurs Grand Modèle
• 8 téléviseurs
• 8 vidéos
• 8 caméras

Pour l’amphithéâtre pour 400 élèves :
• Un Data show
• Un ordinateur portable
• Un rétroprojecteur
• Un écran pliable
• Un tableau magnétique
• Un support Fleep Shart
• 400 tables bancs
• Un bureau pour le professeur

Pour l’amphithéâtre pour 200 élèves (2 amphis)
• Un Data show et un ordinateur portable
• Un rétroprojecteur
• Un écran pliable
• Un tableau magnétique
• Un support Flip Chart
• 150 tables bancs
• Un bureau pour le professeur

Pour une salle de laboratoire (2 salles)

En plus d’un ordinateur avec un logiciel uniquement pour le laboratoire médical, les équipements et le matériel ci-dessous sont listés suivant la nature de l’analyse.
EMATOLOGIE :
- Microscope binoculaire (Zeiss ou Olympuss CH40 ou CH30)
- Microscope trioculaire (pour l’enseignement pratique)
- Loupe binoculaire pour étude entomologique
- Appareil pour coagulation (HEMOSTAGE)
- Appareil COULTER pour NFS
- Appareil à Hématocrite (centrifugèuse à Hématocrite plus Echelle de LECTURE)
- RHEUSCOPE

BIOCHIMIE
- Centrifugèse
- Spectrophotomètre à aspiration
- Micropipette graduée
- Appareil d’ionogramme
- Automate de biochimie
- Appareil pour le gaz du sang (Gazométrie)

BACTERIOLOGIE
- Étuve
- Autoclave
- Réfrigérateur
- Congélateur
- Compteur différentiel
- Poupinel
- Bec Bunsen
- Distillateur (Eau distillée)

SEROLOGIE
- Automate de sérologie
- Agitatueur de KLINE

Pour une salle de professeurs (3 salles)
- 10 placards
- 10 bureaux
Pour le bloc administratif:
- 6 bureaux ministre avec retour et 6 fauteuils roulants
- 13 bureaux demi ministre avec 13 fauteuils
- 50 chaises de visite
- 1 salon complet
- 6 petits frigos
- 19 unités informatiques complètes
- 19 Split

Pour une salle de réunion (2 salles):
- Une grande table ronde
- 100 chaises
- 1 grand écran de projection
- 1 data show fixé au plafond

Pour un seul dortoir de capacité de 300 personnes (2 dortoirs)
- 300 lits avec matelas et draps
- 300 placards
- 300 petits bureaux
- 300 chaises

Pour Cafétéria/Buvette/Restaurant
- 1 équipement type (Voir capacité du restaurant)
2.2. Equipement type pour l’Ecole de Santé Publique de Néma

L’équipement ci-après doit être prévu pour chaque local :

Pour une seule salle de cours (12 salles de cours)
- Un Data show et un ordinateur portable
- Un rétroprojecteur
- Un écran pliable
- Un tableau magnétique
- Un support Flip Chart
- 40 tables bancs
- Un bureau pour le professeur

Pour une seule salle de travaux pratiques (6 salles de TP)
- Manéquin pour simulation des différentes injections (IV, IM, S/C, IDR et Perfusion)
- Manéquin : simulateur pour la prise de sang
- Manéquin : simulateur d’accouchement
- Manéquin : simulateur de soins obstétrico-gynécologique
- Manéquin : simulateur de soins chirurgicaux
- Instruments pour la petite chirurgie
- Instruments pour l’obstétrique et la gynécologie
- Trousse de diagnostic pour l’otolaryngologie
- Sphygmomanomètre portable de mercure
- Thermomètre clinique
- Thermomètre clinique pour le rectum
- Instrument de mesure de taille pour adulte
- Instrument de mesure de taille pour enfant
- Étage pour le matériel
- Balance pour enfant
- Montre chrono
- Otoclave
- Appareil de distillation
- Armoire pour les instruments
- Poubelle
- Lit pour malade
Pour la salle informatique
- 60 unités informatiques complètes

Pour la salle d’audio-visuelle
- 3 photocopieurs Grand Modèle
- 3 téléviseurs
- 3 vidéos
- 3 caméras

Pour amphithéâtre pour 200 élèves (un seul)
- Un Data show
- Un ordinateur portable
- Un rétroprojecteur
- Un écran pliable
- Un tableau magnétique
- Un support Fleep Shart
- 400 tables bancs
- Un bureau pour le professeur

Pour un seul amphithéâtre pour 100 élèves (un seul)
- Un Data show et un ordinateur portable
- Un rétroprojecteur
- Un écran pliable
- Un tableau magnétique
- Un support Flip Chart
- 150 tables bancs
- Un bureau pour le professeur

Pour une salle de laboratoire (2 salles):

En plus d’un ordinateur avec un logiciel uniquement pour le laboratoire médical, les équipements et le matériel ci-dessous sont listés suivant la nature de l’analyse.

EMATOLOGIE :
- Microscope binoculaire (Zeiss ou Olympuss CH40 ou CH30)
- Microscope trioculaire (pour l’enseignement pratique)
- Loupe binoculaire pour étude entomologique
• Appareil pour coagulation (HEMOSTAGE)
• Appareil COULTER pour NFS
• Appareil à Hématocrite (centrifugeuse à Hématocrite plus Echelle de LECTURE)
• RHESUSCOPE

**BIOCHIMIE**
• Centrifugeuse
• Spectrophotomètre à aspiration
• Micropipette graduée
• Appareil d’ionogramme
• Automate de biochimie
• Appareil pour le gaz du sang (Gazométrie)

**BACTERIOLOGIE**
• Etuve
• Autoclave
• Réfrigérateur
• Congélateur
• Compteur différentiel
• Poupinel
• Bec Bunsen
• Distillateur (Eau distillée)

**SEROLOGIE**
• Automate de sérologie
• Agitateur de KLINE

*Pour une salle de professeur (2 salles)*
• 6 placards
• 6 bureaux

*Pour le bloc administratif:*
• 6 bureaux ministres avec retour et 6 fauteuils roulants
• 13 bureaux demi ministre avec 13 fauteuils
• 50 chaises de visite
• 1 salon complet
• 6 petits frigos
• 19 unités informatiques complètes
• 19 Split

Pour *une salle de réunion* (une seule):
• Une grande table ronde pour 100 personnes
• 100 chaises

Pour *un seul* dortoir de capacité de 300 personnes (2 dortoirs)
• 300 lits avec matelas et draps et coussins
• 300 placards
• 300 petits bureaux
• 300 chaises

Pour Cafétéria/Buvette/Restaurant
• 1 équipement type (Voir capacité du restaurant)
ANNEX III. QUESTIONNAIRE RELATIF AUX ASPECTS ENVIRONNEMENTAUX

Question 1 Outline of the project

1-1 Le Projet concerne-t-il les secteurs suivants?
□ Oui □ Non  X

Si oui cocher la case correspondante SVP
□ Développement minier
□ Développement Industriel
□ Énergie Thermique (comprenant l'énergie géothermique)
□ Barrages et réservoirs d'Hydro énergie,
□ contrôle de l'érosion des rivières
□ Transmission d'énergie et ligne de distribution
□ Routes, ferroviaire et ponts
□ Aéroports
□ Ports et quai
□ Approvisionnement en eau, traitement des eaux polluées et des eaux usées
□ Gestion et évacuation des déchets
□ Agriculture comprenant défrichage et irrigation à grande échelle
□ Forêt
□ Pêche
□ Tourisme

1-2 Le Projet comprend-t-il les éléments suivant?
□ Oui □ Non  X

I Si oui, cocher les points suivant SVPs.

□ Repeuplement involontaire (échelle ménages personnes)
□ Pompage d'eau souterraine (échelle: m³/an)
□ Réclamation de terres, défrichage et exploitation des terres (échelle: hectares)
□ Abattage (échelle: hectares)
1.3 Le soumissionnaire a-t-il pris en compte d'autres alternatives avant la requête?
   □ Oui: décrire la liste des alternatives
   □ Non X

1.4 Le soumissionnaire a-t-il tenu des réunion avec les bailleurs concernés avant la requête?
   □ Oui X □ Non
   Si oui, cocher la case correspondant au bailleur.
   □ Corps Administratif
   □ Résidents locaux
   □ ONG
   □ Autres (Mission de la JICA, décembre 2009)

Question 2

Le projet est-il un nouveau projet ou un projet en cours d'exécution ? Dans le cas d’un projet en cours, avez-vous reçu des plaintes répétées etc. venant des populations vivant localement?

□ Nouveau X □ En cours (il y’a des plaintes) □ En cours (il n’y a pas de plaintes) □ Autres

Question 3 Nom des lois ou directives:

L’Evaluation de l’impact sur l’Environnement (EIE) comprenant l’Inspection Initiale de l’Environnement (IIE) nécessaire pour ce projet selon les lois ou réglementations dans le pays hôte?

□ Oui □ Non X

Si oui, prière cocher les cases correspondantes.
□ A demande IIE uniquement (□ est réalisé, □ en cours, □ en projet)
□ A demande a la fois les EIE et IIE (□ est réalisé, □ en cours, □ en projet)
□ A demande EIE uniquement (□ est réalisé, □ en cours, □ en projet)
   □ Autres:
REQUBTE POUR LA REALISATION D’UN PROJET D’ETUDE DE FAISABILITE POUR LE DEVELOPPEMENT DE LA SANTE EN MAURITANIE

DECEMBRE 2009
1. **Date** : 15 décembre 2009

2. **Pays** : République Islamique de Mauritanie

3. **Titre du projet** : Etude de Faisabilité pour le développement de la Santé en Mauritanie.

4. **Secteur** : Santé

5. **Sites de l’Etude de Faisabilité** : Toutes les Wilayas

6. **Année de réalisation souhaitée** :
   
   6.1. Début des travaux : mi 2010
   6.2. Durée de l’Etude : 6 mois

7. **Organisme d’exécution** :

   **Ministère** : Ministère de la Santé

   **Agence** : Direction de la Programmation, de la Coopération et de l’Information Sanitaire (DPCIS)

   **Responsable** : Isselmou Ould mahjoub
   Directeur de la DPCIS
   Téléphone/fax : 00 (222) 529 14 16
   Bureau Portable : 00 (222) 224 38 40
   E-mail : isselmoumahjoub@yahoo.fr

8. **Contexte/Justification** :

   La République Islamique de Mauritanie (RIM) est un vaste pays (1.030.700 km²) de l’Afrique de l’ouest désertique à plus de 80%. Sa situation géo climatique (prédominance de zones et de périodes arides) rend les conditions de travail des personnels de santé aux niveaux périphériques difficilement supportables : isolement et difficultés de communication, fluctuations thermiques importantes entre saisons, et même entre le jour et la nuit, rareté de l’eau et absence d’électricité ou d’autre source d’énergie,…etc.
La population mauritanienne est estimée à 3 104 950 habitants en 20095 avec un taux d'accroissement de 2,6% et une densité de 2,4%. Cette population est essentiellement concentrée au sud et dans les grands centres urbains. Elle est à majorité jeune (54% de moins de 20%) 6avec un léger surnombre des femmes (51,3%). L'indice synthétique de fécondité (4,7) – inférieure à la moyenne sous-régionale – et l'analyse des tendances populationnelles7 montre que la Mauritanie a entamé la transition démographique, avec une réduction progressive de la natalité et une meilleure maîtrise de la fécondité.

L'amélioration de la situation sanitaire cache d'importantes disparités entre groupes socio-économiques ; en effet, les indicateurs de santé restent particulièrement inquiétants en milieu rural, dans les groupes les plus pauvres et ceux à faible niveau d'éducation. L'analyse des indicateurs de santé par groupe socio-économiques permet de distinguer trois groupes :

- Dans le quintile le plus riche, les indicateurs de santé sont en décalage positif et la dynamique vers l'atteinte des objectifs du millénaire semble bien engagée ;
- Dans les 40% à revenu moyen, les indicateurs restent médiocres avec une dynamique positive qui nécessite d'être renforcée.
- Enfin pour les 2/5 les plus pauvres, les indicateurs sont extrêmement faibles et des actions plus particulières et plus ciblées sont indispensables pour leur intégration dans la dynamique des groupes précédents.

Il existe également des disparités régionales ; certaines régions comme les régions du sud, du sud-est et du centre font face à des défis particuliers avec des indicateurs de santé – mortalité, malnutrition et fécondité – significativement plus médiocres que la moyenne nationale. Les différentiels en termes de revenus des ménages et d'éducation des mères expliquent en grande partie ces disparités. Mais l'accès aux services, en particulier aux services de prise en charge et de suivi des enfants, et d'accouchements assistés, joue également un rôle important.

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5 RGPH 2000 ; estimation

6 DRH, requête : août 2009

7 Taux d'accroissement de la population en diminution : 2,3% en 2000 contre 2,9% en 1988

8 PSDRH 2006-2015, Draft 5; janvier 2006; MS
Donc, la dynamique des indicateurs est positive mais des progrès considérables, en particulier en ce qui concerne la mortalité maternelle et périnatale, restent à fournir pour que la Mauritanie atteigne les Objectifs du Millénaire pour le Développement en 2015.

La disponibilité et l’efficacité des ressources humaines, et de la formation continue constituent un défi majeur pour la fonctionnalité des structures existantes et celles à construire pour améliorer la couverture sanitaire.

9. Présentation du système de santé en Mauritanie :

Le système de soins publics, qui suit le découpage administratif, est constitué de trois niveaux de prestations, à savoir :

Le niveau périphérique (Moughataa): 522 postes de santé, 71 centres de santé et 2 hôpitaux de Moughataa. En appui à ce niveau, des unités de santé de base (USB) qui sont installées dans une partie non négligeable des agglomérations villageoises éloignées des postes et centre de santé ;

Le niveau intermédiaire où se trouvent les hôpitaux régionaux au niveau des chefs lieu des Wilayas (5 hôpitaux régionaux et 6 centres hospitaliers à caractère administratif);

Le niveau tertiaire qui comprend 14 établissements publics de référence y compris l’hôpital militaire dont 4 établissements spécialisés (Oncologie, Cardiologie, Neuropsychiatrie et kinésithérapie)

S’y ajoutent : deux établissements nationaux de formation (1 à Nouakchott et 1 à Kiffa (600 km à l’Est de Nouakchott sur la route de l’espoir) et trois établissements nationaux (Recherche en santé publique, Contrôle de qualité de médicament et Approvisionnement en médicaments essentiels et consommables médicaux.

Ce système de santé est appuyé et coordonné par une structure administrative hiérarchisée structurée en 8 directions centrales, 1 inspection au niveau central, 13 directions régionales et 53 circonscriptions sanitaires de Moughataa.

Au vu du système de santé, la situation des ressources humaines reste préoccupante malgré les efforts fournis en la matière. L’analyse de la situation actuelle montre...
qu’il existe un déficit en personnel à tous les niveaux. Le constat unanimement partagé est que la grande majorité des structures de santé du niveau primaire ne répond pas aux normes en personnel (73% des postes de santé et 57% des centres de santé). Cette situation est due, en partie, au manque de cohérence entre le Plan de Développement des Infrastructures Sanitaires (PDIS) et le Plan de Développement des Ressources Humaines (PDRH).

C’est dans ce contexte que le Ministere de la Santé a demandé simultanément un Projet d’Aide non Remboursable pour la construction et l’équipement de deux écoles de formation en santé publique dont une sera faite à Nouakchott et l’autre à Nema.

10. **Objectifs de l’Etude :**

10.1. **Objectifs généraux**

- Assurer la formation initiale et continue des ressources humaines de santé en quantité et qualité
- Appuyer les études stratégiques du secteur
- Améliorer le plateau technique des structures sanitaires

10.2. **Objectifs spécifiques** :

- Effectuer la collecte des données et des informations nécessaires et les analyser.
- Analyser la situation actuelle et specifier le problème dans ce secteur en Mauritanie/
- Proposer un projet approprié et/ou un programme pour le développement des ressources humaines dans le secteur de la santé.
- Examiner la possibilité de réalisation de l’amélioration des Ecoles de Sante Public a travers un Projet d’Aide Non Remboursable.
- Examiner la possibilité de collaboration avec des Organisations Internationales telle que l’OMS.
- Réduire sensiblement le gap en ressources humaines qualifiées d’ici 2015
- Identifier les études stratégiques que le département doit effectuer
- Identifier les besoins en équipement pour les structures sanitaires.
モーリタニア・イスラム共和国における
総合的な健康・環境改善

（医療・保健分野における
水・衛生・エネルギーの活用システム改善）

和文要約
モーリタニア概要

モーリタニア・イスラム共和国（Islamic Republic of Mauritania, 以下「「モ」国」）は、西アフリカに位置し、国土面積 10.3 万 km²（日本の約 2.7 倍）、人口 320 万人（2008年）の国である。12の州（Wilaya）と首都であるNouakchott 特別区の下に53の県（Moughataa）が設置されている。

「モ」国は、貧困削減、経済構造調整改革や投資環境の整備に積極的に取り組んでいるが、貧困対策（貧富の格差解消）、民族対立、都市問題、識字率向上、民営化の推進、為替レートの安定、食糧安全保障の確立等、中・長期的な課題は多い。

貧困対策には特に力を入れており、2000年に貧困削減戦略文書（PRSP：Poverty Reduction Strategy Paper）が策定され、2006年には、その改訂版が出された。改訂版PRSPにおいては、より一層開放的で多様化した経済の興隆を図ることが目指されており、中・長期的に持続的な経済成長を確保するべく、さまざまなレベルにおいて社会経済開発が進められている。それらを通じてMDGsを達成するための国家建設を目指しており、2030年の長期の展望も視野に入れた内容となっている。

「モ」国においては、クーデターによって延期されていた日本大使館の開設が2009年12月に実現するとともに、それに先立つ11月には、日本政府による経済援助も再開されている。TICAD IVの実現に向けて、周辺国における日本の経済援助が活発に行われている中で、「モ」国は援助の対象から取り残されており、大使館の開設と経済援助の再開を機に、日本からの支援に大きな期待が寄せられている。

「モ」国において、PRSPの節目である2010年を迎えるにあたり、医療・保健分野に係るPRSPの進捗状況を確認するとともに、当該分野における水・衛生・エネルギーの整備状況についての現状と課題を把握することによって、PRSPにおいて中間目標年である2015年と最終目標年である2030年に向け、中・長期的に持続的な経済成長を確保するための総合的な健康・環境改善のあり方を検討する。なお、「モ」国保健省では、2010年から2012年の3年間に実現すべき施策に係るアクションプランを策定しているが、ここ数年の予算は70％程度しか執行されておらず、恒常的な財源不足によるドナー頼りの計画であることが窺える。

「モ」国政府からの要請

保健省より、外務省が2009年12月24日付けで、在Nouakchott 日本大使館に対して要請書を提出したとの連絡があった。
- 緊急無償支援に係る医療従事者養成校の改善対策
- 保健・医療分野における開発調査
今後の支援の方向性

「モ」国は既に日本との間で主要な貿易産品となっている水産資源のみならず、鉱物資源（鉄、銅、石油・天然ガス）にも恵まれた国であり、地理的・歴史的関係の深いフランスやスペインによる経済協力が積極的に進められている。また、アフリカ諸国において独自の外交政策を進めている中国の進出も著しい。我が国としても、「モ」国の経済的・社会的安定への積極的な支援を通じて政治的安定を図り、よって我が国のプレゼンスを高めることが重要である。

持続可能な経済成長を確保するための協力のあり方

PRSPの最終目標年に設定されている2030年に向けて、持続可能な経済成長を確保するため、その基軸である「貧困層の経済面での成長の定着化」及び「人材資源の開発と基本的社会サービスの拡充」について、優先分野に取り上げられている保健・医療分野への協力を核とする「モ」国経済・社会の安定化策についての検討を行った。

保健・医療分野を核とする開発プログラムの概要

保健・医療分野における人の資源の開発（医療従事者の養成）を通じて、基本的社会サービスである保健・医療サービスの拡充を図る。特に、末端の医療現場において、時として医師の役割をも兼ねた業務を要求される看護師及び助産師の養成を中心とした人的資源の開発を行うことによって、貧困層に対する基本的社会サービスの拡充を図る。
医療従事者の養成に関するフレームワーク

「モ」国に対する「保健・医療分野を核とする地域開発」の提案

「モ」国において貧困層の経済面での成長の定着化を図るための方策について、「緊急」「短期」「中・長期」にフェーズ分けたうえで、ソフト分野については、各種制度の構築、人材養成、雇用、地域保健システムの構築等に係る JICA スキームの技術協力プロジェクトを構築し、ハード分野については、施設や機材の供与等に係る JICA スキームの無償資金協力や円借款プロジェクトを構築する。

緊急対応案件(2012年)：保健・医療サービスの充実を図るためには、絶対的に不足している医療従事者の質と量を確保するため、人材の養成と再教育が欠かせない。特に、医療現場において最も重要な役割を担っている看護師及び助産師の養成と再教育は喫緊の課題であり、緊急対応案件として、2012年中の実施に向けて、ENSP の拡充及び Nema 公衆衛生学校(ESPN: School of Public Health at Nema)の新設を支援する。
短期対応案件（～2015 年）：緊急対応案件への支援を併行して、公衆衛生学校において質の高い教育を実施するために必要な教育システムの構築策を策定するとともに、質の高い教育の実現に欠かすことのできない OJT を充実させるために必要な実習病院の設備等の拡充策を策定し、緊急対応案件完了後の速やかな実施を図る。

中長期的対応案件（～2020 年）：地域中核病院を核とする地域の保健・医療サービスの拡充を通じて、地域における社会的基本サービスの拡充を図るとともに、それらの施策が貧困層の経済面での成長の定着化に結び付くような社会開発の実施を図る。