

PART 1: RURAL ROAD MASTER PLANNING IN AMURU AND NWOYA DISTRICTS

SECTION 2: REGIONAL DEVELOPMENT FOR AMURU AND NWOYA DISTRICTS

3. PRESENT SITUATION OF AMURU AND NWOYA DISTRICTS

3.1 Natural Conditions

(1) Location

Amuru and Nwoya Districts are located in northern Uganda. These districts are bordered by Sudan in the north and eight Ugandan Districts on the other sides (Gulu, Lamwo, Adjumani, Arua, Nebbi, Bulisa, Masindi and Oyam).

(2) Land Area

The total land area of Amuru and Nwoya Districts is about 9,022 sq. km which is 3.7 % of that of Uganda. It is relatively difficult for the local government to administer this vast area of the district.

(3) Rivers

The Albert Nile flows along the western border of these districts and the Victoria Nile flows along their southern borders as shown in Figure 3.1.2. Within Amuru and Nwoya Districts, there are six major rivers, namely the Unyama River, the Ayugi River, the Omee River, the Aswa River, Tangi River and the Ayago River. These rivers are major obstacles to movement of people and goods, especially during the rainy season.

(4) Altitude

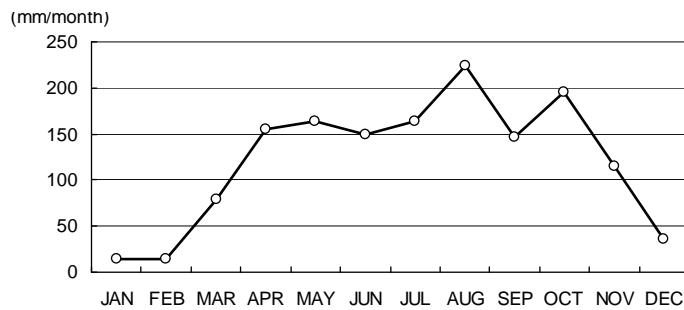
The altitude ranges between 600 and 1,200 m above sea level. The altitude of the southwestern area that is a part of Western Rift Valley is relatively low and ranges between 600 and 800 m above sea level. Many wild animals live near the Albert Nile in the western part of Amuru and Nwoya Districts and near the Victoria Nile in the southern part of Nwoya District because of a favourable climate. The Murchison Falls National Park is located in the southern part of Nwoya district.

(5) Rainfall

The climate of Amuru and Nwoya Districts is characterized by dry and rainy seasons. The rainy season in these districts is from April to October. However, the rainfall in Uganda, including northern Uganda, has been erratic since the early 1990s. The annual average rainfall in the last 15 years (1994 - 2009) was about 1,400 mm according to the Gulu meteorological station. During the rainy season, the average rainfall is 171 mm per month.

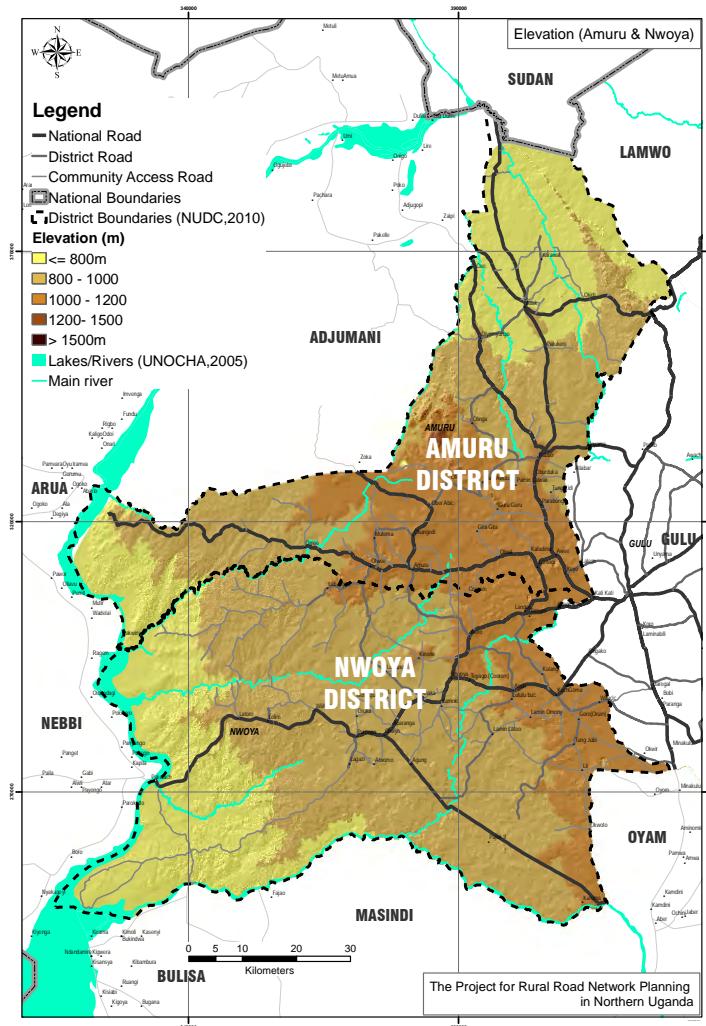
(6) Vegetation

The vegetation in Amuru and Nwoya Districts is extensively represented by grassland savannah and woodland savannah. Grassland savannah covers 37% of the total land, woodland savannah covers 37% and bush covers 12%. Figure 3.1.3 shows the geographical distribution of the main vegetation types in Amuru and Nwoya Districts. Grassland savannah is predominant in the western part and northern part of these districts. Woodland savannah is more concentrated in the central and eastern parts of these districts.



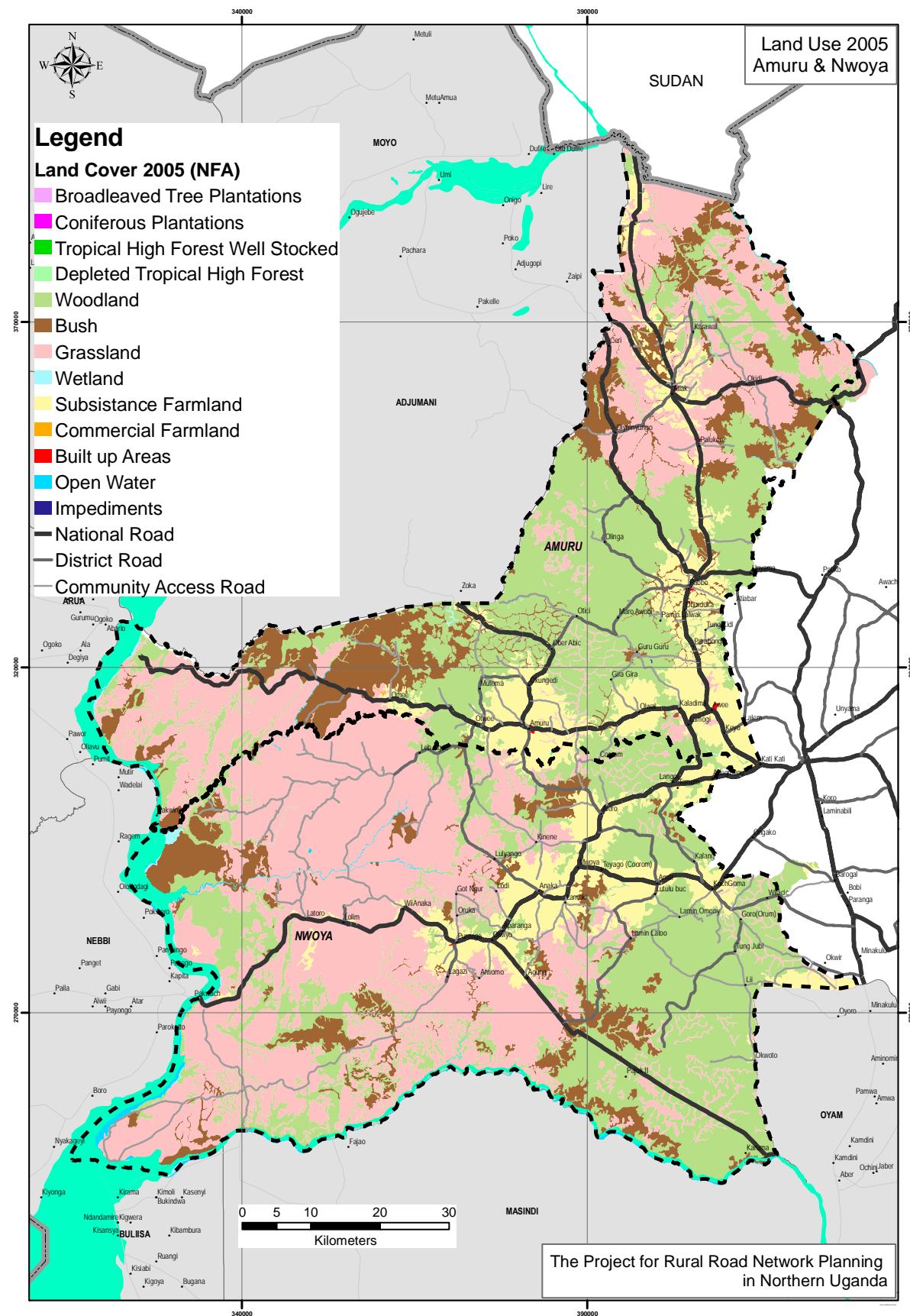
Source: Department of Meteorology, Ministry of Water and Environment

Figure 3.1.1 Average Rainfall in Gulu 1980-2008



Source: Compiled by JICA Study Team

Figure 3.1.2 Topography of Amuru and Nwoya Districts



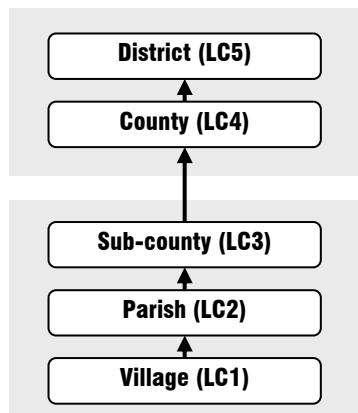
Source: Compiled by JICA Study Team

Figure 3.1.3 Vegetation in Amuru and Nwoya Districts

3.2 Local Government Administration

Former Amuru District is a relatively new district, which was established by carving out Kilak County and Nwoya County from Gulu District in July 2006. After July 2010, former Kilak County became the new Amuru District, and former Nwoya County became the new Nwoya District.

In Uganda, the local government is made up of five (5) levels of hierarchy, i.e. from LC5 to LC1 (see Figure 3.2.1).



Source: JICA Study Team

Figure 3.2.1 Local Government Hierarchy

The new Amuru District is composed of 5 lower local governments (4 sub-counties and 1 town council): they are, Amuru sub-county, Atiak sub-county, Lamogi sub-county, Pabbo sub-county, and Amuru town council. Nwoya District is composed of 4 lower local governments (4 sub-counties): they are, Alero sub-county, Anaka sub-county, Purongo sub-county, Koch Goma sub-county as shown in Table 3.2.1.

Table 3.2.1 Number of Parishes and Villages by Sub-county in Amuru and Nwoya Districts

District	Sub-county	Number of Parishes	Number of Villages
Amuru	Amuru	6	12
	Atiak	8	16
	Lamogi	8	16
	Pabbo	6	15
Total		28	59
Nwoya	Alero	6	12
	Anaka	6	16
	Purongo	5	14
	Koch Goma	6	13
Total		23	55

Source: UNHCR, 2009

The District Council is the highest decision-making body with fully-fledged legislative and executive powers. The District Chairperson, who is elected through universal adult suffrage, is the political head of the District. The Chief Administrative Officer (CAO), who is appointed by the District Service Commission (DSC), is the administrative head of the District, and is the chief accounting officer for the district.

Although former Amuru District was a young government organization, the performance of the District Local Government was commendable, partly because many of the government administration staff of Amuru District were transferred from Gulu District, which has been relatively well established for many years. However, quite a few positions in former Amuru District Local Government had not been occupied by the end of June 2010 (before segmentation of the district).

3.3 Return Process of IDPs

Since 1986, the Lord's Resistance Army (LRA) increased violent attacks on Uganda government forces and civilians in Acholi Sub-region. As a result, nearly 95 percent of the ethnic Acholi population in the sub-region was displaced from their original home villages.

The government lifted the restrictions on freedom of movement for IDPs of Acholi Sub-region in 2006. However, protection concerns prevailed among IDPs.

Since April 2007, peace negotiations between the Government of Uganda (GOU) and LRA significantly improved security in northern Uganda. This situation encouraged IDPs to move closer to home villages.

In 2008, the return process of IDPs was accelerated by moving them from IDP camps to transit sites.

The population in the IDP camps in Acholi sub-region was 1,347,396 in 2006. By August 2009, the population in IDP camps in Amuru and Nwoya districts had dropped to about 73,500. The population in the IDP camps decreased further to 36,400 by May 2010: this was about 10 % of the registered population in IDP camps in 2006.

There were 33 IDP camps and 99 transit sites in Amuru and Nwoya Districts as of August 2009.¹ By July 2010, all of these IDP camps were officially closed down.

Table 3.3.1 Population Changes in IDP Camps in Acholi Sub-region, and Amuru and Nwoya Districts

Month-Year	Acholi Sub-region		Amuru and Nwoya Districts	
	IDP Camp Population	% of 2006 IDP Camp Registered Population	IDP Camp Population	% of 2006 IDP Camp Registered Population
Dec-05	1,110,000	-	204,000	-
2006	1,347,396	100%	368,228	100%
Jun-07	916,000	68%	n.a.	-
Aug-08	497,631	37%	n.a.	-
Nov-08	437,000	32%	104,000	28%
Feb-09	329,000	24%	88,000	24%
May-09	261,722	19%	75,990	21%
Aug-09	184,199	14%	73,494	20%
May-10	76,836	6%	36,404	10%

Source: UNHCR, UNOCHA

¹ Many of the IDP camps have become trading centres, and sub-county headquarters of Amuru District are located close to IDP camps.

Table 3.3.2 Population Changes in IDP Camps in Districts of Acholi Sub-region

	IDP Camp Pop.	IDP Camp Registered Pop.	IDP Camp Pop.	% of the 2006 Registered IDP Camp Pop.	IDP Camp Pop.	% of the 2006 Registered IDP Camp Pop.
District	Dec. 2005	2006	Nov. 2008		Feb. 2009	
Amuru and Nwoya	204,000	368,228	104,000	28%	88,000	24%
Gulu	257,000	320,232	153,000	48%	61,000	19%
Kitgum and Lamwo	310,000	319,936	102,000	32%	102,000	32%
Pader and Agago	339,000	339,000	78,000	23%	78,000	23%
Acholi Total	1,110,000	1,347,396	437,000	32%	329,000	24%
	IDP Camp Pop.	% of the 2006 Registered IDP Camp Pop.	IDP Camp Pop.	% of the 2006 Registered IDP Camp Pop.	IDP Camp Pop.	% of the 2006 Registered IDP Camp Pop.
District	May 2009		Aug. 2009		May 2010	
Amuru and Nwoya	75,990	21%	73,494	20%	36,404	10%
Gulu	45,013	14%	22,699	7%	14,029	4%
Kitgum and Lamwo	98,495	31%	48,534	15%	15,509	5%
Pader and Agago	42,224	12%	39,472	12%	10,894	3%
Acholi Total	261,722	19%	184,199	14%	76,836	6%

Source: UNHCR, UNOCHA

It is considered that Amuru and Nwoya Districts have relatively lower rates of return of IDPs to home villages (villages of origin) compared to other districts in Acholi Sub-region. This can be seen by analyzing the changes of IDP camp populations and the populations of home villages shown in Tables 3.3.1 through 3.3.4.

However, in Amuru and Nwoya Districts, the return process has accelerated since the end of 2009 because fear of more LRA attacks diminished among local residents and grasses for roofing material became more easily available in December 2009.

Many of the former residents of Amuru and Nwoya Districts used to live in IDP camps in Karuma and Gulu Districts. Those IDPs have also returned to Amuru and Nwoya Districts.

Among sub-counties in Amuru and Nwoya Districts, different return ratios to home villages are observed, as shown in Table 3.3.5. Koch Goma and Alero sub-counties have higher return ratios than other sub-counties.

Table 3.3.3 Number of Villages, IDP Camps and Transit Sites by Sub-County in Amuru and Nwoya Districts, as of August 2009

District	Sub-county	Number of Villages	Number of IDP Camps	Number of Transit Sites
Amuru	Amuru	12	4	8
	Atiak	16	2	5
	Lamogi	16	5	12
	Pabbo	15	7	5
	Total	59	18	30
Nwoya	Alero	12	3	11
	Anaka	16	4	5
	Purongo	14	7	5
	Koch Goma	13	1	7
	Total	114	33	58

Source: UNHCR

Table 3.3.4 Populations in IDP Camps, Transit Sites and Home Villages by District in Acholi Sub-region

District	Population (as of February 2009)				Return Ratio (1)/(2)
	in IDP Camps	in Transit Sites	in Home Villages (1)	Total (2)	
Gulu District	61,000	20,000	176,000	257,000	68%
Kitgum and Lamwo Districts	102,000	62,000	154,000	461,000	33%
Pader and Agago Districts	78,000	128,000	162,000	368,000	44%
Amuru and Nwoya Districts	88,000	70,000	46,000	204,000	23%
Acholi Sub-region	329,000	280,000	538,000	1,147,000	47%
District	Population (as of May 2009)				Return Ratio (1)/(2)
	in IDP Camps	in Transit Sites	in Home Villages (1)	Total (2)	
Gulu District	45,013	19,563	150,558	215,134	70%
Kitgum and Lamwo Districts	98,495	68,970	142,764	485,561	29%
Pader and Agago Districts	42,224	89,328	235,947	367,499	64%
Amuru and Nwoya Districts	75,990	44,131	150,306	270,427	56%
Acholi Sub-region	261,722	221,992	679,575	1,163,289	58%
District	Population (as of August 2009)				Return Ratio (1)/(2)
	in IDP Camps	in Transit Sites	in Home Villages (1)	Total (2)	
Gulu District	22,699	23,063	191,000	236,762	81%
Kitgum and Lamwo Districts	48,534	82,993	195,559	512,201	38%
Pader and Agago Districts	39,472	72,836	275,372	387,680	71%
Amuru and Nwoya Districts	73,494	38,350	163,595	275,439	59%
Acholi Sub-region	184,199	217,242	825,526	1,226,967	67%

Source: UNHCR

Table 3.3.5 Population of IDP Camps, Transit Sites, and Home Villages by Sub-county in Amuru and Nwoya Districts (As of August 2009)

District	Sub-county	Total Population (Counted)		No. of IDP Camps	Population in IDP Camps		No. of Transit Sites	Population in Transit Sites		Population in Home Villages and Return Ratio
Amuru	Amuru	46,810	100.0%	4	12,455	26.6%	8	4,572	9.8%	29,783 63.6%
	Atiak	25,113	100.0%	2	9,225	36.7%	5	2,449	9.8%	13,439 53.5%
	Lamogi	46,263	100.0%	5	16,463	35.6%	12	10,343	22.4%	19,457 42.1%
	Pabbo	56,142	100.0%	7	15,141	27.0%	5	8,159	14.5%	32,842 58.5%
Amuru District Total		174,328	100.0%	18	53,284	30.6%	30	25,523	14.6%	95,521 54.8%
Nwoya	Alero	24,561	100.0%	3	1,659	6.8%	11	3,379	13.8%	19,523 79.5%
	Anaka	40,876	100.0%	4	10,965	26.8%	5	6,150	15.0%	23,761 58.1%
	Purongo	13,461	100.0%	7	5,202	38.6%	5	1,480	11.0%	6,779 50.4%
	Koch Goma	22,213	100.0%	1	2,384	10.7%	7	1,818	8.2%	18,011 81.1%
Nwoya District Total		101,111	100.0%	15	20,210	20.0%	28	12,827	12.7%	68,074 67.3%
Grand Total		275,439	100.0%	33	73,494	26.7%	58	38,350	13.9%	163,595 59.4%

Source: UNHCR

3.4 Population

(1) Population and Population Growth

The populations of Amuru District and Nwoya Districts were 174,300 and 101,100 respectively in August, 2009.² They accounted for 0.9% of Uganda's total population, which was estimated to be 30,661,000 by mid-year 2009.

The population growth rates of former Amuru District were 3.1% per annum between 1991 and 2002 and 6.5% per annum between 2002 and 2009. This high population growth rate between 2002 and 2009 was partly due to the return process between 2007 and 2009.

(2) Urban Population

There are urban populations in former Amuru District. However, UBOS has not statistically identified any urban populations as yet.

Gulu Town (Gulu Municipality) is not part of former Amuru District. However, Gulu Town is the most important urban centre for Amuru and Nwoya Districts. The urban population of Gulu Town was 119,430 in 2002. UBOS estimated that Gulu Town had a population of 146,600 by mid-year 2009.

In 2009, Gulu Town was the third largest urban centre in Uganda in terms of population, behind Kampala (1,533,600) and Kiira (164,700). The large urban population of Gulu Town provides a sizeable market for the agricultural produce from Amuru and Nwoya Districts. Gulu Town also has an important trading function for the agricultural produce of Acholi Sub-region.

Lira Town, which is also an important town as a market for agriculture produce of Amuru and Nwoya Districts, was estimated to have an urban population of 98,000 in 2008.

² UNHCR's monitoring of populations in former Amuru District.

The percentage of Uganda's urban population out of the total population is still low compared to other African countries. It was only 12.3% in 2002. It was estimated to be 14.8% in 2009 by UBOS.

(3) Population Density

Former Amuru District was one of the largest districts in terms of area. The area of former Amuru District is 3.7% of the total area of Uganda.

The population density of former Amuru District was 20 persons/km² in 2002. This was the lowest population density among the districts of Uganda. In 2009, the population density of former Amuru District was estimated to be 31 persons/km².

Table 3.4.1 Population Densities in Regions of Uganda

	Population Densities (persons/km ²)			
	1980	1991	2002	2008
Central Region, including Kampala	58	79	107	126
Eastern Region	82	105	157	195
Northern Region	28	37	63	78
Western Region	61	82	114	136
Uganda	52	69	101	123

Source: Uganda Bureau of Statistics Website, 2010

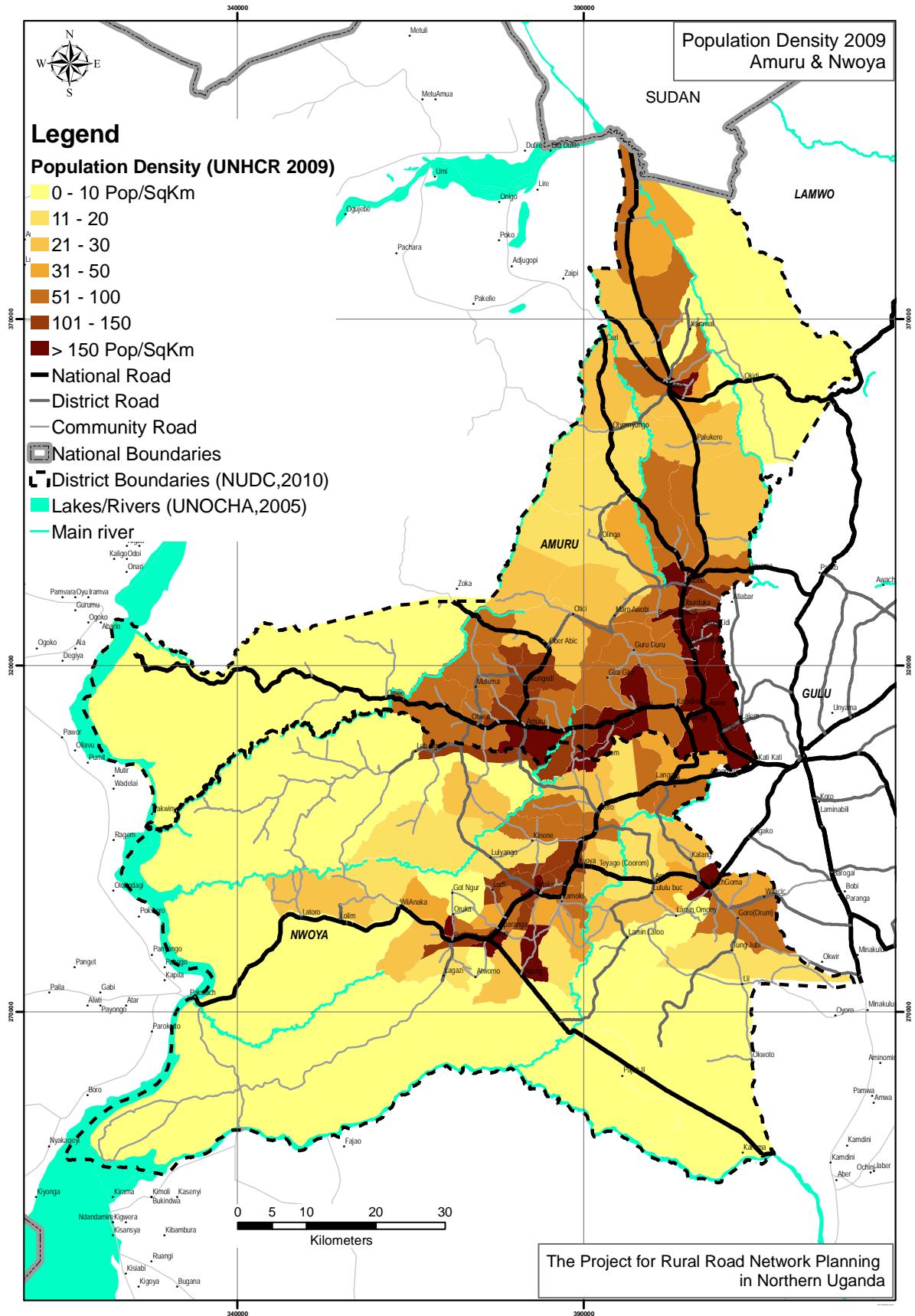
In Amuru and Nwoya Districts, the population densities of the sub-counties vary greatly, as shown in Table 3.4.2. The population densities of villages have a wider range as shown in Figure 3.4.1.

The major ethnic group in Amuru District is 'Acholi' and they speak the local acholi language. 'Madi' people also live around Atiak sub-county and 'Lango' people live around Koch Goma sub-county.

Table 3.4.2 Population and Population Density by Sub-county in 2002 and 2009 in Amuru and Nwoya Districts

District	Sub-county		2002	2002	2009	2009
		Area (km ²)	Population Census	Population Density	Monitored Population	Population Density
				(persons/km ²)	(August 2009)	(persons/km ²)
Amuru	Amuru	2,536.30	28,969	11	52,075	21
	Atiak	1,052.60	27,013	26	39,171	37
	Lamogi	422.1	37,625	89	59,879	142
	Pabbo	840.8	42,116	50	39,171	47
Amuru District		4,851.80	135,723	28	190,296	39
Nwoya	Alero	636.1	13,222	21	25,092	39
	Anaka	436.2	12,597	29	21,996	50
	Purongo	1,386.50	6,641	5	14,096	10
	Koch Goma	1,711.90	8,550	5	22,551	13
Nwoya District		4,170.70	41,010	10	83,735	20
Total		9,022.50	176,733	20	274,031	30

Source: Population Census 2002 of UBOS and Population Monitoring of 2009 by UNHCR



Source: Compiled by JICA Study Team

Figure 3.4.1 Population Densities of Villages in Amuru and Nwoya Districts

3.5 Agricultural Sector

(1) Agriculture

Agriculture is the backbone of the district economy in Amuru and Nwoya Districts. The major source of household incomes is sale of crops. In Amuru and Nwoya Districts, about 85% of income is from sale of crops, about 7% is from wages for casual labour and 5% is from sale of forest products.³

Returnees to home villages depend on the sale of crops more than people in transit sites and IDP camps. People in IDP camps and transit sites depend on wages for casual labour more than returnees to home villages.⁴

Based on the interview with the former Amuru District office⁵, 90% of the population is engaged in agriculture. About 60% of the population is engaged in crop farming, about 20% in livestock, about 5% in fisheries and about 5% in beekeeping.

Arable land, which makes up about 90% of the total land area, is fertile, although much of the land is not utilised partly because of the influence of the long-term conflict. Livestock and fisheries, which used to be active, are not as active at present.

The major crops by quantity of production are as follows: 1) cassava, 2) groundnuts, 3) sorghum, 4) simsim (sesame), 5) maize, 6) rice, and 7) other crops, such as finger millets, peas, and sunflowers. Fruits like citrus, mangoes, pineapple and bananas are also produced. These are considered as both food and cash crops. Cotton and tobacco were the major cash crops before. However, they are scarcely produced these days.

**Table 3.5.1 Estimated Production of Major Crops in Amuru and Nwoya Districts
(Second Season of 2008)**

	Amount of Crop Production (Metric Tons)
Cassava	18,989
Groundnuts	9,037
Sorghum	7,728
Simsim (Sesame)	5,011
Maize	4,549
Rice	3,064

Source: DED-Refugee/IDP Programme (2009), Second Season 2008 Land Use and Crop Yield Assessment Report, Acholi Sub-region

Looking at crop production by sub-county, major products are slightly different among sub-counties. For example, bordering with Sudan and Lamwo Districts, Atiak produces mainly simsim, sorghum and cassava. Pabbo sub-county is famous for rice and produces groundnuts and cassava, too. Major products of Purongo sub-county are rice, cassava, and groundnuts. Other sub-counties (Amuru, Lamogi, Alero, Anaka, and Koch Goma) have the same characteristics and chiefly produce groundnuts, cassava, and rice.

³ DED-Refugee/IDP Programme (2009), Second Season 2008 Land Use and Crop Yield Assessment Report, Acholi Sub-region.

⁴ DED-Refugee/IDP Programme (2009), Second Season 2008 Land Use and Crop Yield Assessment Report, Acholi Sub-region.

⁵ These figures are rough estimations. A national agricultural census is currently underway. Therefore, it was difficult to capture exact data at the time of interview.

The largest amount of overall crop production was found in Pabbo Sub-county, followed by Lamogi Sub-county, Atiak Sub-county then Amuru Sub-county. The lowest amount of overall production of crops was found in Purongo Sub-county.

Table 3.5.2 Estimated Average Production of Crops per Household in Amuru and Nwoya Districts (Second Season 2008)

Type of Crops	Crops	Average Amount of Crop Production per Household (kg)
Cereals	Maize	117.0
	Sorghum	198.8
	Millet	71.9
	Rice	78.8
Pulses	Beans	66.8
	Cowpeas	0.1
	P. Peas	38.0
	Soybeans	7.5
	Green Grams	0
Oil Crops	Simsim (Sesame)	128.9
	Ground Nuts	232.4
	Sunflower	2.1
Root Tubers	Sweet Potato	22.7
	Cassava	488.4
Cash Crops	Cotton	0
	Tobacco	0

Source: DED-Refugee/IDP Programme (2009), Second Season 2008 Land Use and Crop Yield Assessment Report, Acholi Sub-region

Table 3.5.3 Amount of Overall Crop Production by Sub-county in Amuru and Nwoya Districts (Second Season of 2008)

District	Sub-county	Amount of Overall Crop Production (Metric Ton)
Amuru	Pabbo	12,340
	Lamogi	11,573
	Atiak	8,787
	Amuru	6,788
Nwoya	Purongo	2,480

Source: DED-Refugee/IDP Programme (2009), Second Season 2008 Land Use and Crop Yield Assessment Report, Acholi Sub-region

Harvesting seasons for major crops are shown in the table below. Many of the major crops are harvested twice per year in June-July and November-December. On the other hand, cassava can be harvested throughout the year and as a result, it is planted for food security as well. Although the traditional harvesting seasons are as shown in the table, the harvesting seasons are changing these days because rainy seasons have become more erratic.

Table 3.5.4 Harvesting Seasons for Major Crops in Amuru and Nwoya Districts

Crop	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Groundnuts						✓	✓				✓	✓
Beans					✓				✓	✓		✓
Cassava	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Finger millet						✓	✓				✓	✓
Maize						✓	✓				✓	✓
Rice						✓	✓				✓	✓
Sorghum						✓	✓				✓	✓
Simsim											✓	
Peas											✓	
Sunflowers								✓			✓	✓

Source: Production Officer of Former Amuru District

(2) Administration of Agriculture

In former Amuru District, the Production and Marketing Department is in charge of agriculture. The department has the following major officers: district production coordinator, district agriculture officer, district veterinary officer, animal husbandry officer, veterinary officer, district fisheries officer, district entomologist, and district commercial officer. As titles of officers indicate, the department is divided into sections of crop, livestock, fisheries, and entomology. The commercial and marketing and district production coordinator is responsible for all sections. Each section is supposed to have assistant officers at sub-county level. However, most of the positions are vacant at present.

Tasks of the department are advising Amuru District in terms of agriculture, coordinating all agricultural activities inside the district, planning, budgeting, staffing, controlling and managing for improved agricultural productivity. Officers at sub-county level take care of matters for each section at that level and sometimes support farmers directly. Each section has one motorbike for conducting the required tasks.

In addition to the officers above, there are officers for NAADS (National Agricultural Advisory Services Programme), which aim to increase farmer access to information, knowledge and technology for profitable agricultural production. Major implementations of NAADS are 1) farmer organisation and institutional development, 2) priority enterprise identification and promotion, 3) technology and advisory services, needs identification and support to farmers, and 3) contracting and provision of services and improved technologies⁶. There is a district NAADS coordinator at district level and sub-county NAADS coordinator at sub-county level. The District NAADS coordinator is employed by NAADS and the sub-county NAADS coordinators are employed by the districts. Some of district officers play the roles of sub-county NAADS coordinators in former Amuru District.

The officers receive technical advice and supervision from the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF). Since MAAIF does not have regional offices, the district is supervised directly by the Ministry. The officers submit reports to the Ministry monthly.

The department implements activities based on the District Development Plan (DDP). When supporters come to the district, they look for areas requiring support considering gaps in DDP. There is a coordination body, that is, a committee for food security. The district office, FAO, WFP, and NGOs (i.e. World Vision, Save the Children in Uganda, CARE, ACF) participate in the committee meetings.

⁶ National Agricultural Advisory Services Programme (NAADS) – Annual Report 2006/07, Ministry of Agriculture, Animal Industry and Fisheries

(3) Major Challenges of Agricultural Sector

There are various challenges for enhancement of the agricultural sector. When farmers restart their farms, they sometimes face conflicts over the land. Even when there are no land conflicts, clearing bushes is a big challenge for them. After starting farming, agricultural implements such as hoes are lacking, which causes farmers to carry out inefficient farming. Also, climate is changing these days and the rain patterns are now erratic. Because of this, farmers apply the method of trial and error to their farming practices in response to the erratic weather patterns.

As regards livestock, tsetse flies, which cause human sleeping sickness and animal trypanosomiasis, are spread among cows and goats. Spraying animals is one solution to protect animals from tsetse flies. However, it is expensive. Clearing bushes is another solution. But, it is not recommended from an environmental point of view.

When farmers want to sell their products, transportation is a barrier. There is an inadequate road network in Amuru and Nwoya Districts and there are a lot of bottle necks, lacking proper bridges and culverts. Some roads become impassable when it rains. These make it difficult to reach farms by vehicles. After harvesting, farmers need to use vehicles to transport their products. However, many farmers cannot even afford to hire motorbikes.

The Production and Marketing Department faces a problem of being understaffed like other departments of the district office. It also does not have proper office space. In addition, salary payments are sometimes delayed, which decreases motivation of existing officers. Furthermore, government funding is not adequate. At times when the funding makes it to the district, it arrives late creating logistic problems. Therefore, it is difficult to implement a plan as scheduled. As a result, the district office is unable to provide sufficient services to farmers.

3.6 Commercial Sector

(1) Private Sectors

The private sector of Amuru and Nwoya Districts is still weak. There are no factories in the districts and only a few small-scale grinding mills and rice hullers exist. Besides, only a few construction companies exist there as well. Service industries have not developed significantly, and only a few service industries such as lodges, barber shops, motorcycle taxis (boda-boda) and motor transport exist. According to Amuru District office, about 10% of the population is engaged in marketing and commerce.

Although electricity is not available in most parts of the district, a mobile telephone network covers both rural and urban areas, which makes it possible to provide easy and fairly affordable telecommunication services.

There are no commercial banks in Amuru or Nwoya Districts at present. However, USAID will provide Ecobank a grant for establishing its branch office in Amuru District, by forming a partnership with Ecobank. This initiative of USAID is an intention to encourage Ecobank to provide savings, credit and other financial services to agro-businesses in the district.

There are more than 30 trading centres in Amuru and Nwoya Districts, as shown in Table 3.6.1. Many of them used to be located in IDP camps. The following commercial places can be found in trading centres;

- Permanent market places, where vegetables and other daily needs are sold by small scale traders. Permanent market places are in a limited number of trading centres (Pabbo and Amuru).
- Grocery and other specialized permanent shops
- Produce shops, which buy agricultural produce from farmers

- Monthly markets (once a month a large market place is established)

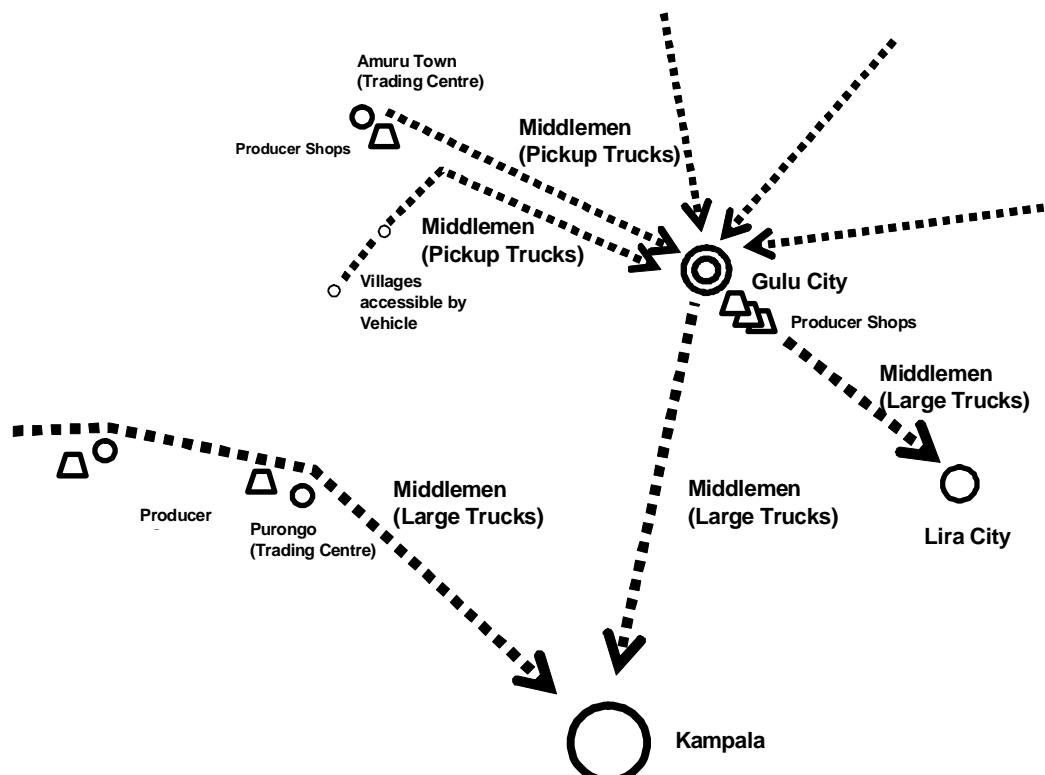
On the other hand, the following commercial places can be found in villages:

- Temporary market places
- Kiosks

(2) Middlemen Dealing in Agricultural Produce in Amuru and Nwoya Districts

Besides these various traders, middlemen are active in buying and selling agricultural produce in Amuru and Nwoya Districts as well as in Acholi Sub-region. There are different types of middlemen dealing in agricultural produce as shown in Figure 3.6.1:

- Produce shops in trading centres, which buy agricultural produce from farmers and sell produce to middlemen from Gulu Town
- Medium scale middlemen who take pick-up trucks to villages, buy produce from farmers in villages and transport the produce from villages to sell to produce shops in Gulu Town
- Medium scale middlemen who take pick-up or middle-sized trucks to trading centres, buy produce from produce shops in trading centres and transport the produce to sell to produce shops in Gulu Town
- Produce shops in Gulu Town, which buy agricultural produce from middlemen who transport the produce from trading centres and villages, and sell the produce to Large scale middlemen from Kampala City and Lira Town
- Large scale middlemen who take large trucks to produce shops in Gulu Town, buy produce from the produce shops in Gulu Town and transport the produce to sell in Kampala City and Lira Town



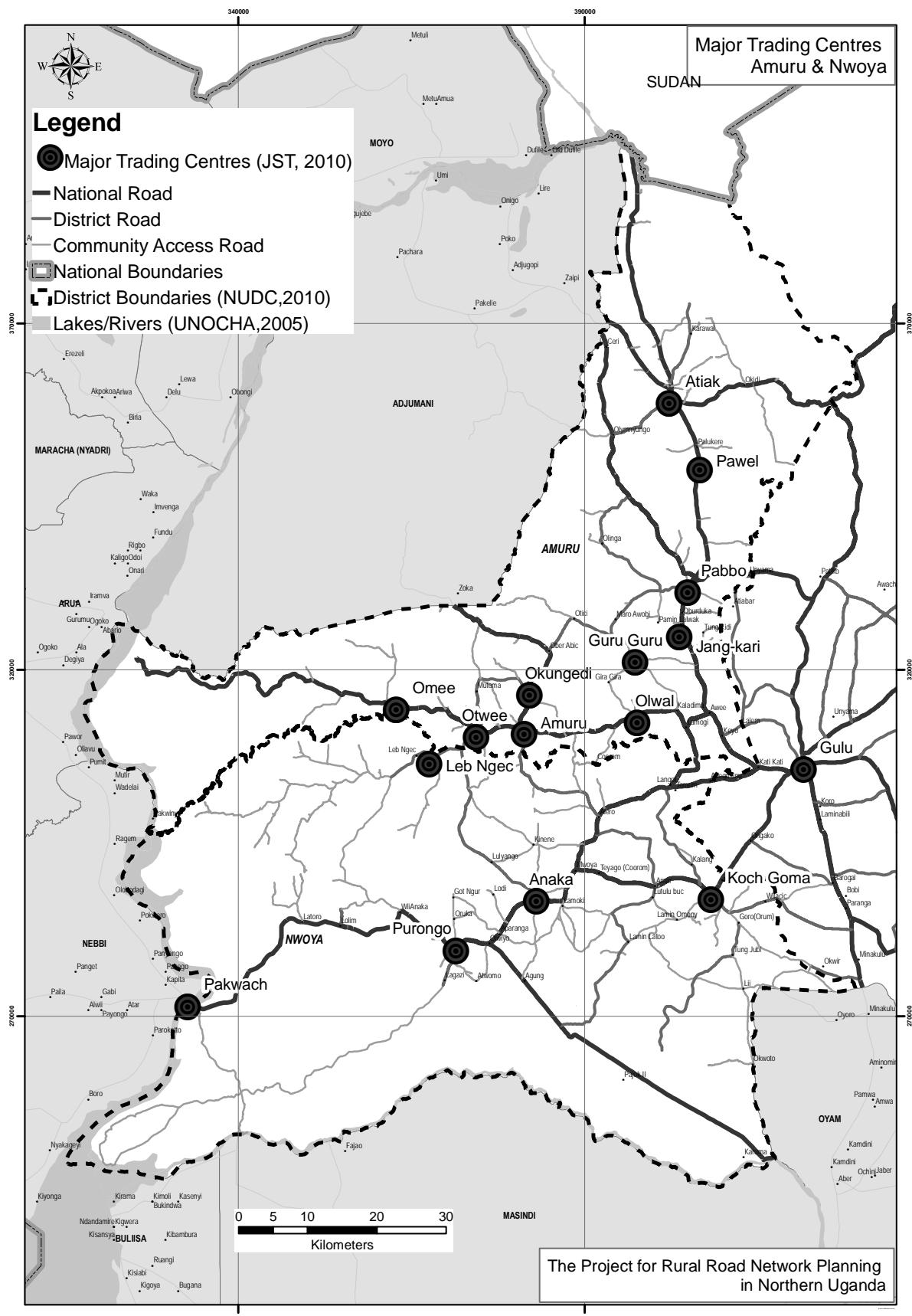
Source: JICA Study Team

Figure 3.6.1 Different Types of Middlemen Active in relation to Amuru and Nwoya Districts

Table 3.6.1 Trading Centres and Number of Produce Shops in Amuru and Nwoya Districts

No.	Trading Centre	District	Sub-county	Number of Weighing Scales	Where do buyers come from? From Kampala? From Lira? From Gulu? From other places?	Total Number of Produce Shops
1	Pabbo centre	Amuru	Pabbo	60	Gulu Town, Kampala, Lira, Sudan	12
2	Olwal trading Centre	Amuru	Lamogi	25	Gulu and communities within	48
3	Amuru Center	Amuru	Amuru	19	Gulu mostly	20
4	Anaka	Nwoya	Anaka	16	Gulu, Pakwach, Nebbi	-
5	Otwee	Amuru	Amuru	15	Gulu, Nimule, Kampala.	18
6	Attiak Center	Amuru	Attiak	15	Gulu Town, Kampala, Lira, Sudan	27
7	Koch Goma	Nwoya	Koch Goma	11	Gulu, Pakwach and Lira	17
8	Lebngec	Nwoya	Alero	10	Gulu , Lira and Sudan	16
9	Guru Guru	Amuru	Lamogi	10	Gulu Town, Kampala, Lira, Sudan, Adjumani, Moyo	17
10	Purongo centre	Nwoya	Purongo	8	Gulu, Kampala, Lira, Masindi, Arua, Nebbi	12
11	Omee 1	Amuru	Amuru	8	Amuru centre and Otwee	12
12	Okungedi	Amuru	Amuru	8	Gulu, Amuru, Sudan , Lira	24
13	Pawel lalem	Amuru	Attiak	8	Gulu, Amuru, Sudan, Lira	17
14	Jeng-kari	Amuru	Lamogi	8	Gulu, Kampala	14
15	Pawel Angera	Amuru	Attiak	7	Gulu, Amuru, Sudan , Lira, Kampala.	12
16	Parabogo	Amuru	Lamogi	6	Gulu, Kampala	9
17	Bibia	Amuru	Attiak	5	Sudan, Adjumani	7
18	Awer	Amuru	Lamogi	5	Gulu, Kampala	8
19	Labala	Amuru	Pabbo	4	Gulu Town, Kampala, Lira, Sudan, Adjumani, Moyo	9
20	Okidi	Amuru	Attiak	4	Gulu Town, Kampala, Lira, Sudan	8
21	Olwiyo centre	Nwoya	Purongo	3	Gulu, Kampala, Lira, Masindi, Soroti	5
22	Mara- Awobi	Amuru	Pabbo	3	Gulu Town, Kampala, Lira, Sudan	7
23	Ami - Lobo	Amuru	Pabbo	3	Gulu Town, Kampala, Lira, Sudan	6
24	Corner Nwoya	Nwoya	Anaka	3	Alero, Gulu, Anaka Center	5
25	Oberabic	Amuru	Amuru	3	Pabbo, Adjumani, Amuru centre	3
26	Apaa	Amuru	Pabbo	3	Mainly from Adjumani, Amuru centre	4
27	Palukere Camp	Amuru	Attiak	2	Gulu	6
28	Agung	Nwoya	Purongo	2	Karuma, Arua, Purongo	4
29	Mutema	Amuru	Amuru	2	Amuru centre, Otwee	5
30	Got Apwoyo	Nwoya	Purongo	1	Pakwach in theWest Nile	2
31	Lolim	Nwoya	Purongo	1	Pakwach in the West Nile	1
32	Wii Anaka	Nwoya	Purongo	1	Pakwach, Gulu, Kamdini, Karumba	2
33	Lakang	Amuru	Amuru	1	Amuru centre and Otwee	4
34	Pawel	Amuru	Amuru	1	Amuru centre and Otwee	3
35	Corner Atala	Amuru	Amuru	1	Amuru centre and Otwee	2
36	Patira	Nwoya	Anaka	1	Anaka centre, Gulu.	-
37	Aparanga	Nwoya	Purongo	1	Purongo centre, Anaka centre	-

Source: Field Survey done by JICA Study Team



Source: Fieldwork done by JICA Study Team

Figure 3.6.2 Major Trading Centres in Amuru and Nwoya Districts

3.7 Tourism Sector

The tourism sector is one of the economic sectors promising to earn foreign currency in Uganda. In 2008, Uganda received 844,000 tourists, which was an increase of 31.5% from 2007 (642,000).

The tourism sector of Uganda is based on natural and cultural resources. The numbers of visitors (citizens and foreigners) to national parks were 138,000 and 127,000 in 2008 and 2007, respectively.

The most preferred attractions according to tourists are gorilla trekking and game views as shown in Table 3.7.1. Other aspects enjoyed by tourists are hospitality and culture.

Table 3.7.1 Major Tourism Attractions

Tourism Attractions	Frequency of Positive Responses	Tourism Attractions	Frequency of Positive Responses
Gorilla Trekking	36	Nature Walk	5
Game Views	33	Adventure	2
Chimpanzees	21	Volunteer Holidays	1
Sceneries	18	Religious Places	1
Mountain Climbing	16	Launch Cruises	1
Bird viewing	15	Lake Victoria	1
Cultures	10	Forest Walks	1
Water Rafting	6		

Source: Ministry of Tourism, Trade and Industry (July 2008), Report on the Tour Operators

Murchison Falls National Park is second to Queen Elizabeth National Park and Bwindi National Park as one of the most preferred tourist areas in Uganda. Murchison Falls National Park is located over two districts, namely Nwoya District and Masindi District. The southern part of Nwoya District is occupied by the northern half of the national park.



Source: The Safari Co.

Figure 3.7.1 National Parks in Uganda

3.8 Social Infrastructure and Services

3.8.1 Water

(1) Water Points in Amuru and Nwoya Districts

People in Amuru and Nwoya Districts get water from boreholes, shallow wells, springs, hand-dug wells, and motorised boreholes (for piped water systems). The total number of water points in these districts was 560 as of May 2009. There were 310 boreholes (55%), 71 shallow wells (13%), 152 springs (27%), 19 hand-dug wells (3%), and 8 motorised boreholes (1%). These water points are distributed within the sub-counties as shown in the table below. Some of the water points are located in schools and health centres, but can be used by community people. Having more boreholes than other types of water points, as seen in Amuru and Nwoya Districts, is typical of rural areas in Uganda.

**Table 3.8.1 Number of Water Points by Sub-county in Amuru and Nwoya Districts
(As of May 2009)**

District	Sub-county	Borehole	Shallow well	Spring	Hand-dug well	Motorised borehole	Total
Amuru	Amuru	45	11	16	4	1	77
	Atiak	58	1	1	0	1	61
	Lamogi	42	32	37	8	1	120
	Pabbo	51	3	18	0	3	75
Nwoya	Alero	41	2	15	3	0	61
	Anaka	25	6	33	1	2	67
	Purongo	18	7	12	2	0	39
	Koch Goma	30	9	20	1	0	60
Total		310	71	152	19	8	560
Estimated Covered Population		77,500	17,750	22,800	4,750	8,000	130,800

Source: Amuru District

If it is assumed that each borehole, shallow well, and hand-dug well serves 250 people, each spring serves 150 people and each motorised borehole serves 1,000 people, the existing water points would cover 150,800 people in Amuru and Nwoya Districts. Based on the population projections by UBOS⁷, total population of Amuru District (including Nwoya District) in 2009 was 210,400. Therefore, based on the data from Amuru District, the existing water points cover about 62% of the population in Amuru and Nwoya Districts.

According to the “Water and Environment Sector Performance Report 2009”⁸, 66% of the population of Amuru and Nwoya Districts have access to safe water. The difference in the figures could be attributed to differences in categorization, calculation method, timing, and so on. Based on the report, the average percentage of access to safe water in rural areas is 65% in Uganda. So, Amuru and Nwoya Districts enjoy an average level of accessibility to safe water in comparison to all districts in Uganda. It should be noted that the coverage of water points in Pabbo sub-county is the worst and only 40% of the population is covered in the sub-county, based on the same report.

⁷ Sub National Projections Report – Northern Region – 2008-2012, Uganda Bureau of Statistics, December 2008

⁸ Water and Environment Sector Performance Report 2009, Ministry of Water and Environment, October 2009

(2) Administration of Water Points

1) Overall Management of Water Points

Water points are managed by the water section under the works department of the district office. There are supposed to be four officers in the water section, namely: one district water officer/ senior water engineer, two assistant district water officers, and one borehole maintenance technician. In reality, however, there are only two officers (one assistant district water officer and one borehole maintenance technician) plus one on study leave (one assistant district water officer) in the section for former Amuru District. Therefore, the assistant district water officer worked as an acting district water officer and the borehole maintenance technician played the role of assistant district water officer for the district in 2009.

The tasks of the acting district water officer are planning for the water and sanitation sector, supervising the implementation of the plan and reporting. The tasks of the acting assistant district water officer are to oversee operations and maintenances of boreholes, to train community hand-pump mechanics, and to supervise field work such as drilling of boreholes. Drilling to open up water points is currently not a responsibility of the districts: districts do not have drilling machines with them. Instead, districts outsource drilling to private companies as well as NGOs. In order to conduct the tasks, the officers utilise one pick-up truck and one motor cycle.

Although these officers are employed by the district, they also report their activities to the Ministry of Water and Environment (MoWE) quarterly. The officers receive technical support from the Ministry. MoWE has its office in Lira; this office supervises the districts of northern Uganda (Amuru, Gulu, Kitgum, Pader, Lira, Apac, Oyam, Dokolo, Amolatar etc.). Staff from the office supervise activities of these districts and sometimes provide technical advice.

In addition to the officers mentioned above, a district health inspector from the health service department of the district office is in charge of hygiene and sanitation training. The community development officer from the community-based services department is in charge of community mobilisation at water points and training of water and sanitation committees.

The Water and sanitation sectors of Amuru and Nwoya Districts have several revenue sources. These include the district water and sanitation conditional grant, funds from PRDP, funds from local government development programme, and an equalization grant from the government and various funds and projects from international donors as well as NGOs. Based on the district development plan (DDP), the sector requests necessary budgets from various funding sources.

There are no officers at county, sub-county, parish, and village levels. However, there is one community pump mechanic per parish. They are trained for simple repair of water points and given bicycles and necessary tools by the government. They do not receive a regular salary from the government. Instead, they are supposed to receive some allowances from the water and sanitation committees when they do some work.

The opening up of new water points (boreholes, especially) is done in the following manner. When the district is planning to get funds for opening boreholes, the information is conveyed to the sub-counties which in turn convey it to the villages. Then the villages which want to have new boreholes apply for the funds. After collecting applications, the sub-county technical planning committees are assigned the role of short-listing candidate locations for new boreholes, utilizing certain criteria. Criteria include present safe water coverage as well as access to the villages. If access to the candidate villages is undermined by poor roads and the heavy equipment for opening boreholes cannot be delivered there, then their suitability for receipt of funds will be undermined despite having very low safe water coverage.

In terms of support from outside organisations, several international organisations and NGOs support the districts' water and sanitation sectors. Major partners are UNICEF, ICRC, ACF, and CPAR. The district holds monthly coordination meetings to discuss who does what and where to avoid duplication of support. If some organisations desire to support the district in terms of water point improvement, they need to review DDP and Sub-county Development Plans to locate funding gaps as well as to attend the coordination meetings.

2) Operation and Maintenance of Water Points at the Site

Since Uganda follows the principles of CBMS (Community Based Maintenance System), the management of each water point is done by the water and sanitation committees; which are expected to be established for each water point. Members of the water and sanitation committees are people from the community surrounding the water point and 50% of the members should be women. Their tasks are to provide hygiene education to the people in the community, to collect user fees, and to be responsible for operation and maintenance. A committee should be established and trained when a new water point is constructed. Currently, it is not certain how many water and sanitation committees exist in Amuru and Nwoya Districts because registration of the water and sanitation committees was not conducted.

(3) Major Challenges on Water Points

There are several challenges to provide sufficient water to the people. First of all, it is said that the condition of water points in the home/ return villages is still poor. According to the acting district water officer in Amuru District, water points at home villages were abandoned for more than 20 years during the conflict and most of them do not function properly. Therefore, the existing ones should be repaired while new ones are constructed at the same time. However, there aren't sufficient funds to do so. Even when there are funds available, other problems still remain. Some of water points do not have proper access roads. Drilling of boreholes requires heavy equipment. Therefore, if water points are to be newly opened, access roads are required to reach the points. Besides, there are sometimes land disputes around the water points.

Secondly, operation and maintenance of existing water points has not been satisfactorily done. As described above, water points should be managed by water and sanitation committees consisting of community people. According to the acting district water officer, many of the water and sanitation committees are not functioning properly despite the fact that they are established. Training, including refresher training for members of the committees, is conducted. Still, many of the committees have difficulties in collecting user fees for necessary maintenance. It is also pointed out that the behaviour and attitudes of community people should be changed so that they manage water points as they would their own property. Several NGOs working in Amuru and Nwoya Districts also pointed out that management of water points is a big challenge.

In addition, the district offices are under-staffed. Because some of the positions are vacant, current staff have to cover tasks of other positions. Under-staffing also makes it difficult to reach and check all water points frequently and provide necessary support to hand pump mechanics and water and sanitation committees.

Finally, Amuru and Nwoya District offices do not have proper data for planning. It is said that underwater potentials around Atiak and Bibia are low. However, the office has not conducted a comprehensive hydro-geological survey as yet. Furthermore, the office does not have exact population data of the district and therefore, it is difficult for the office to prioritise activities among needs.

Major challenges are summarised as follows:

- Condition of water points in the home villages is still poor.
- Operation and maintenance of water points is not done satisfactorily.
- District offices do not have enough staff members.
- District offices do not have proper data for planning.

3.8.2 Health

(1) Health Units in Amuru and Nwoya Districts

Health units in Amuru and Nwoya Districts include a hospital, health centre IVs (HC IV), health centre IIIIs (HC III), and health centre IIs (HC II). The number of health units by type and sub-county is shown in the table below. As it is shown, there are 37 health units; 1 hospital, 1 HC IV, 8 (including 2 NGO owned) HC IIIIs, 19 functional HC IIs and 8 non-functional HC IIs. In fact, several health centres are currently under construction and some of the existing health centres have plans for upgrading. Therefore, the figures will change in the near future.

Table 3.8.2 Number of Health Units by Sub-county in Amuru District (As of October 2009)

District	Sub-county	Hospital	HC IV	HC III	HC II		Total
					Functional	Not Functional	
Amuru	Amuru	0	0	1 (1)	2	3	6
	Atiak	0	1	1	1	3	6
	Lamogi	0	0	1	4	0	5
	Pabbo	0	0	2 (1)	4	2	8
Nwoya	Alero	0	0	1	2	0	3
	Anaka	1	0	0	2	0	3
	Purongo	0	0	1	1	1	3
	Koch Goma	0	0	1	2	0	3
Total		1	1	8 (2)	18	9	37

Source: Amuru District, Ministry of Health

Note: Number in () is the number of health units owned by NGOs.

The facility requirements for HC II are an out-patient department (OPD) building and staff house with at least 2 staff members required for each HC II. HC III is supposed to have an OPD building, a maternity building, a maternity ward, a male ward, a female ward, and staff house with 3 minimum staff members. HC IV is expected to have the same facilities as HC III and an operating theatre with a minimum of 23 staff members. A hospital should have the same type of facilities as HC IV, but all of them should be bigger than those of HC III. In addition, a children's ward and specialised clinics should be available. Comparing the required facilities and existing facilities, most of the health units in Amuru and Nwoya Districts do not have complete facilities. It should be noted that each government-owned health unit has village health teams.

HC IIs are supposed to remain open from 8:00 to 17:00 hrs from Monday to Friday. HC IIIIs and hospitals are supposed to remain open 24 hours a day for 7 days a week. However, they do not remain open for the required hours because of a variety of reasons such as; the staff members not living close to the health units.

In terms of out-patient services, major diagnoses in financial year 2008/2009 were Malaria, Cough or cold, Diarrhoea-acute, Intestinal worms, Trauma, ENT (ear, nose, and throat)

conditions, Eye conditions, and Skin diseases. In addition, antenatal/ postnatal services and child health services including immunisations are major services that are provided by the health units.

The health units also provide in-patient services. As for types of in-patient diagnoses, top 5 causes of morbidity for children under 5 in Financial year 2008/2009 in Amuru and Nwoya Districts were 1) Malaria, 2) Respiratory infection, 3) Diarrhoea-acute, 4) Anaemia, and 5) Diarrhoea-persist. Those for persons 5 years and older were 1) Malaria, 2) Malaria in pregnancy, 3) Trauma, 4) Abortion, and 5) Respiratory infection. Furthermore, major causes of mortality for children under 5 in FY 2008/2009 were Malaria, Anaemia, Trauma and animal/snake bites. Those for persons 5 years and older were Malaria, AIDS, Anaemia, Road traffic accidents and trauma.

(2) Administration of Health Sector

1) Overall Management by District Office

The Health Services department of the district office takes care of matters concerning the health sector in former Amuru District. There were 8 major officers at the department and the staff members are listed in the table below.

Table 3.8.3 Existing Staff in Health Services Department

Position	Responsibility
District health officer	<ul style="list-style-type: none"> Management and delivery of health services in the district
Bio-statistician	<ul style="list-style-type: none"> Data compilation Data analyses
District health educator	<ul style="list-style-type: none"> Advocate of health related issues through radios, leaflets, etc
District health inspector	<ul style="list-style-type: none"> Supervision of sanitation and hygiene conditions Assistant of health centres
Vector control officer	<ul style="list-style-type: none"> Control of vector-borne diseases
Health management information officer	<ul style="list-style-type: none"> Data collection
Cold chain assistant	<ul style="list-style-type: none"> Maintenance of cold chain/ vaccination
Store assistant	<ul style="list-style-type: none"> Management of storage

Source: Amuru District

Several positions such as assistant district health officers ((environmental health) and (maternal child health/ nursing)) were vacant and tasks for these positions were covered by existing staff in former Amuru District. For example, the district health educator and district health inspector also played roles of assistant district health officers. They were expected to visit the hospital and HC IVs which were under direct supervision of the district once a month at least. The department had one vehicle and three motorbikes for implementation of these tasks. In addition, two small sedans and one land cruiser were used as ambulances and for drug delivery without any proper equipment.

The Ministry of Health (MoH) provides quarterly technical supervision of the district officers. The district officers report their activities as well as various health related data for the HMIS (Health Management Information System) to MoH. They also communicate directly with MoH if there are any problems.

The sector's revenue sources are from the government and from development partners (international organisations, NGOs, etc) like other sectors. The district office requests funds

from these sources based on DDP. Most development partners do not provide funds directly to the district but implement activities by themselves through close coordination with the district.

The District office does not strategically allocate new health units inside the district. Rather, the opening of new health units depends on the needs of the communities. If a community wants to have a health centre, the community identifies a place for the health centre, after which a development partner (government, NGO, etc) is sought to fund the construction. Ideally, land for health centres is contributed by the communities. However, communities sometimes request compensation for the land.

Various organisations support the health sector of Amuru and Nwoya Districts. According to the district office, major partners among them are UNICEF, WHO, NUMAT, AMREF, AVSI, CPAR, ACTED, ICRC, and NUTI. Basically, support towards the health sector is targeted at funding gaps in DDP. Furthermore, some organisations implement activities/ programmes which are already implemented in other districts.

2) Management and Supervision of Health Units

At the county, sub-county, parish and village levels, there are no officers for the health sector except for staff members at government health units. Health units are supervised through the following structure. The hospital and HC IVs are supervised directly by the district office and two acting assistant district health officers. HC IIIs are supervised by the hospital and HC IV. Anaka general hospital is in charge of supervision of HC IIIs in Nwoya District; i.e., Alero HC III, Purongo HC III, and Koch Goma HC III. On the other hand, Atiak HC IV supervises HC IIIs in Kilak county, which are Bibia HC III, Pabbo HC III, Pabbo HC III (NGO), Kaladima HC III, and Amuru HC III (NGO). The HC IIs are supervised by HC IIIs. They are supposed to support the lower health units monthly and supervise them quarterly using supervision guidelines issued by MoH. In order to do that, the hospital and HC IV have vehicles and motorbikes while some of the HC IIIs are equipped with motorbikes. In addition to these health units, each health unit supervises Village Health Teams (VHTs).

Each health centre establishes a health unit management committee which consists of volunteers from among community people. Health unit management committees supervise activities of the health centres such as opening hours, drug stocks, staff performances, etc. The hospital needs to set up a board which is also composed of community people. The members require training and the district office trains them when the funds are available.

(3) Major Challenges of the Health Sector

There are various challenges facing the health sector of Amuru and Nwoya Districts. First of all, the number of health units is not at the level of the national standard. For example, the national standard requires one HC II per parish. However, many parishes still do not have any health centres. Furthermore, health units are currently located only along the major roads.

Accessibility to existing health units is also a problem. Some roads are in bad condition and are not passable. For some health units, rivers are hindrances. Koch Lii HC II and Pogo HC II in particular have bad access roads.

It cannot be said that existing health units have sufficient facilities. Rather, most of them are still incomplete in that regard. Particularly, the number of staff houses is very small compared to the number of staff that need accommodation. This was pointed out by several development partners as well. It is necessary to provide fences around health units to protect them from animals and other intruders. Some OPDs are very small and need to be expanded. There are no operating theatres in the district at present.

Even if access and facilities are improved, there are not enough staff members for these health units; which is another big challenge. Current staffing level is very low compared to the required number of staff. The district office advertises vacant posts, but there are very few applicants. This is because Amuru and Nwoya Districts are in remote areas and living conditions including the security situation are not considered to be good. Since there isn't enough accommodation for the staff, staff members need to find places in villages or commute from Gulu. As a matter of fact, many of the current staff members commute from Gulu due to lack of staff houses. As a consequence, these staff members come to health units late and leave early, which causes shorter opening hours and fewer services. Understaffing also causes an inadequate level of services. Some required services are missing and some services are covered by existing personnel who do not have exact expertise to provide the services. It is also said that salary payments to staff members are delayed, which is also partly to blame for the understaffing.

The knowledge level of existing staff, especially for nurses and nursing assistants, is also not high which necessitates further capacity building.

Many development partners pointed out the problem of lack of drug stock. The district office also recognises that there aren't sufficient medicines. This causes insufficient clinical services at health units. Besides, patients are forced to go to drug stores to purchase necessary drugs, which could be a burden to the poor.

Communication between the people and the health units, between the health units, and between the district office and the health units is also a challenge. Access to some health units is not good and as such, it is difficult for some people, especially for EVIs (extremely vulnerable individuals), to reach them. Health units, however, do not have proper transportation or ambulances. As a result, it is difficult for health units to reach these people. Lack of ambulances makes it difficult to transport patients to upper level health units for further treatment. Besides, the district office does not have proper and necessary communication with health units because of the lack of communication tools.

Finally, the health services department of the district office does not have proper capacity to provide required services. The department does not have its own office. The number of officers is also inadequate. Since it does not have sufficient transportation equipment, officers find it difficult to go to health units for regular monitoring and timely support. Capacities of existing officers are still low and it is necessary to provide training on management such as computer applications, planning, and human resources management.

In short, the following are challenges of Amuru and Nwoya Districts' health sector:

- Number of health units is not at the level of the national standards.
- Accessibility to existing health units is bad.
- Existing health units do not have sufficient facilities.
- There are not enough staff members for the health units.
- The knowledge level of existing staff is not high.
- There is a shortage of medicines.
- Communication between the people and health units, between the health units, and between the district office and the health units is poor.
- The health services department of the district office does not have proper capacity to provide required services.

3.8.3 Education

(1) Schools in Amuru and Nwoya Districts

There are several types of schools in Amuru and Nwoya Districts. There are nursery schools and ECD (early childhood development) centres for pre-primary education, primary schools for primary education, and secondary schools for secondary education. In addition, technical schools and youth education parks for drop-outs exist in the district. There are no tertiary education institutions.

There are 96 government primary schools in Amuru and Nwoya Districts. The table below shows the number of schools, enrolment, and number of teachers on payroll by sub-county. Many schools have teachers who are not on the payroll. In addition to these government schools, there are 4 private primary schools and 6 community primary schools.

Table 3.8.4 Primary Schools in Amuru and Nwoya Districts

District	Sub-county	Number of Schools	Enrolment			Teachers on payroll		
			Male	Female	Total	Male	Female	Total
Amuru	Amuru	13	5,294	4,341	9,635	98	22	120
	Atiak	13	4,129	3,592	7,721	81	10	91
	Lamogi	13	6,054	5,172	11,226	98	54	152
	Pabbo	13	5,357	4,599	9,956	107	40	147
Nwoya	Alero	15	4,221	3,712	7,933	82	36	118
	Anaka	9	2,793	2,530	5,323	51	20	71
	Purongo	9	2,190	1,933	4,123	39	13	52
	Koch Goma	11	3,021	3,042	6,063	67	22	89
Total		96	33,059	28,921	61,980	623	217	840

Source: Amuru District

Based on “The Education and Sports Sector Annual Performance Report (ESSAPR) – Covering Financial Year 2007/08”⁹, basic educational indicators for Amuru and Nwoya Districts were as follows. Overall rank of Amuru District (including Nwoya District) among all 80 districts was 74 in the financial year 2007/08.

- Gross Enrolment Ratio: 116% (National average: 113%, Rank: 47 out of 80 districts)
- Net Enrolment Ratio: 93.7% (93.3%, 47)
- Gross Intake Ratio: 136.2% (128.7%, 44.5)
- Net Intake Rate: 45% (57.4%, 64.5)
- Completion Rate: 36% (47%, 58)
- Pupil Teacher Ratio (government schools): 64 (53, 63.5)
- Pupil Classroom Ratio: 92 (72, 67.5)

In Amuru and Nwoya Districts, there are 6 government secondary schools, 3 private secondary schools, and one community secondary school. The table below shows a list of secondary schools with enrolment and number of teachers.

⁹ The Education and Sports Sector Annual Performance Report (ESSAPR) – covering Financial Year 2007/08, Ministry of Education and Sports, November 2008

Table 3.8.5 Secondary Schools in Amuru and Nwoya Districts

District	Sub-county	Name of School	Type	Enrolment			Teachers	Hostel
				Male	Female	Total		
Amuru	Atiak	Lwani Memorial College	Community	298	91	389	14	No
	Lamogi	Keyo S.S.	Government	688	238	926	26	Yes
	Lamogi	St. Mary's College Lacor	Government	70	68	138	13	No
	Pabbo	Pabbo S.S.	Government	455	118	573	13	No
	Pabbo	Pabbo Comprehensive S.S.	Private	74	34	108	13	No
Nwoya	Alero	Alero S.S.	Government	9	2	11	7	No
	Anaka	Anaka S.S.	Private	33	5	38	4	Yes
	Anaka	Pope Paul VI S.S.	Government	786	453	1,239	34	Yes
	Koch Goma	Koch Goma S.S.	Government	512	286	798	30	Yes
Total				2,925	1,295	4,220	154	/

Source: MoES, Amuru District

There is supposed to be one primary school per parish and one secondary school per sub-county. According to Amuru and Nwoya Districts, each parish has one primary school, but, two (Amuru and Purongo) of the eight sub-counties do not have secondary schools. Most schools have already been re-established in their home villages. However, 3 primary schools and 1 secondary school are still displaced.

There are three terms for primary and secondary schools in a calendar year. The first term begins at the start of February and ends at the end of April. The second term starts at the end of May and terminates in the middle of August. The third term is from the beginning of September to the end of November. Basically, school opening hours are from 8:30 to 17:00 hrs from Mondays to Fridays.

Pre-primary and primary education institutes are registered to the districts. On the other hand, secondary and technical education institutes are registered to the Ministry of Education and Sports (MoES). Pre-primary education is basically provided by private entities and follows the curriculum and minimum standards set by MoES. Primary education provided through primary schools is universal and compulsory. Children aged 6 years old enter primary schools and study there for seven years. Under the programme of Universal Primary Education (UPE), pupils are entitled to free primary education in government-aided primary schools. The government also ensures that children who drop out of school before completing primary education attain basic education through alternative approaches. Secondary education includes four years for ordinary secondary schooling and two years for advanced secondary schooling. Secondary schools will no longer be able to charge tuition fees under the Universal Secondary Education (USE) programme.

MoES sets basic requirements for establishing schools so as to ensure the educational environment for each school: these are shown in the table below. In addition to the requirements listed in the table, a school must have a School Management committee or Board of Governors. In terms of the required number of teachers, there should be a qualified head-teacher and at least one qualified teacher per class and one more extra teacher than teachers per class in a school. As for primary and secondary schools, there should be at least two teachers per class, of whom one should be qualified. Unfortunately, most of the schools in Amuru and Nwoya Districts do not satisfy these requirements at present.

Table 3.8.6 Basic Requirements for Schools

Type	Minimum Land	Clean Water Source	Enrolment per Class	Minimum Facility
Nursery School	1/4 acre	Nearby or in the compound	Not more than 20	-
Primary School	5 acres	Nearby or in the compound	40 at minimum	<ul style="list-style-type: none"> • Four classrooms • One library • Two staff houses near the school • Toilet facilities with separate facilities for teachers, girls, and boys (15 students per stance for day schools and 10 students per stance for boarding schools)
Secondary School	10 acres	Nearby or in the compound	40 at minimum	<ul style="list-style-type: none"> • Four classrooms • One library • One general laboratory • Two staff houses near the school • Toilet facilities with separate facilities for teachers, girls, and boys (15 students per stance for day schools and 10 students per stance for boarding schools)

Source: Amuru District

(2) Administration of Education Sector

1) Overall Management by District Office

The education sector of former Amuru District was supervised by the education department of the district office. In 2009, there were only 2 major officers at the department although the required number of officers was 7 people. In order to cover the vacancies, the existing officers tried to cover all responsibilities; with the county inspector playing the role of acting district education officer.

Table 3.8.7 Officers of the Education Department

Position (number)	Responsibility	Existence
District education officer (1)	<ul style="list-style-type: none"> • Planning • Policy implementation • Management of education in the district • Administrative matters 	No
Senior education officer (1)	<ul style="list-style-type: none"> • Human resources management (especially for teachers) • Supporting district education officer 	No
District inspector of schools (1)	<ul style="list-style-type: none"> • Quality assurance – district 	No
County inspector (2)	<ul style="list-style-type: none"> • Quality assurance – county 	Yes, but only 1
Special needs education officer (1)	<ul style="list-style-type: none"> • Implementation and supervision of activities of special needs education 	Yes
District sports officer (1)	<ul style="list-style-type: none"> • Implementation and supervision of sports activities inside and outside schools 	No

Source: Amuru District

The department had 1 vehicle and 4 motorbikes for supervising schools in 2009. Officers were supposed to visit every school once per term.

The department reports its activities to MoES regularly. There is a regional office of MoES in Gulu and officers in the office sometimes provide technical support and advice in the field.

Basically, there are two revenue sources for the education sector; from the government and from development partners such as international organisations and NGOs. As for revenues from the government, there are several types of revenues. A school facility grant is used for improvement of facilities. A UPE grant is for improvement of teaching and learning environment in primary schools. A USE grant is for improvement of secondary schools. PRDP also provides funds for the education sector, especially for infrastructure (classrooms, latrines, furniture, etc) development. Salaries of teachers come from the Ministry of Public Service. Development partners basically implement their activities by themselves through close coordination with the education department.

There aren't any officers for the education sector at the county, sub-county, parish, and village levels. However, Coordinating Centre Tutors (CCTs), who are directly hired by MoES under the Teacher Development and Management System (TDMS), exist at sub-county level. They support and train head-teachers and teachers in terms of quality and are supervised by core PTC (primary teachers college) in Gulu. CCTs visit the schools they supervise as many times as possible since they live close to the schools. In addition, associate assessors, who are usually retired teachers, are hired to supervise schools when funds are available.

New opening of primary schools is based on the needs of the communities, rather than strategic planning. When a community wants to have a school, they establish a community school by themselves. If the community school consistently submits statistical data such as number of students, which means that the school is continuously operated, the school would be accredited as a government school. Once accredited as a government school, government teachers are allocated to the schools.

There are many organisations which support the education sector of Amuru and Nwoya Districts: namely, UNICEF, NRC, SCiU, World Vision, African Revival, NUTI, Invisible Children, LABE and so on. When development partners would like to support the education sector, they are asked to review DDP first. Then, in consideration of funding gaps in DDP as well as policies of each organisation, types of support are decided upon. Being in a post-conflict humanitarian aid situation, there are regular cluster meetings for the education office and development partners to coordinate activities among related parties. The meetings are chaired by UNICEF and DEO. Since Amuru District and Nwoya Districts are entering the development stage in their growth, the cluster meetings will become sector meetings which will be chaired by the DEO in the near future.

2) School Level Management

The figure below shows a typical school management structure (primary schools). A school management committee should be established for every school. According to the Education Act 2008, a school management committee consists of 6 members including a chairperson nominated by the foundation body, 1 local government representative nominated by the district councils, 1 representative of the local council executive committee, 1 elected by sub-county, 1 representative of parents, 1 representative of school staff members, and 1 representative of old boys' or girls'; such that the total number of the committee members is 12. In addition, the head-teacher plays the role of secretary of the committee. Schools are managed by school management committees and the functions of management committees are performed by head-teachers on behalf of the management committees.

Parent-Teacher Associations (PTAs) also exist in the schools. PTAs support schools in various ways; for instance, they provide some labour to build school facilities and they discipline students.

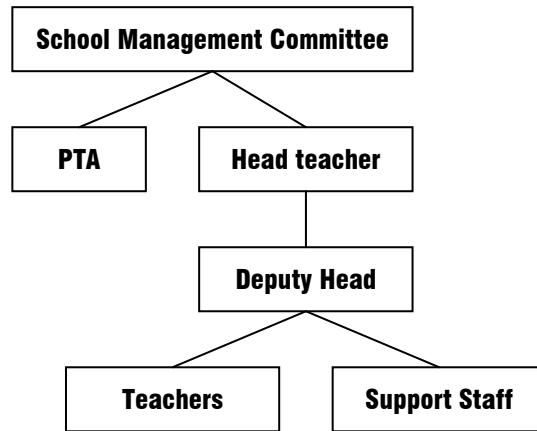


Figure 3.8.1 School Management Structure

(3) Major Challenges in the Education Sector

There are many challenges in the education sector in Amuru and Nwoya Districts. First of all, the number of schools is still inadequate. Considering the aspect of accessibility to existing schools, more schools should be constructed, especially in home villages. However, lack of funding makes it difficult to build new schools. Furthermore, some locations suffer from land disputes.

Existing schools do not have adequate facilities such as classrooms, furniture, sanitation facilities, and playgrounds. Furthermore, some of the existing classrooms are temporary structures that are easily affected by the weather.

High pupil-teacher ratios show that there are not enough teachers in schools. Furthermore, the remoteness of Amuru and Nwoya Districts and the lack of adequate accommodation for teachers at schools, lead to a high incidence of vacancies of teaching positions. Besides, delays in salary payments cause low motivation among teachers and high rate of staff turnover for teachers.

Poor working conditions for teachers also cause irregular attendance and a high rate of absenteeism by teachers. Since teacher accommodation is lacking, many teachers are forced to commute from Gulu and/or IDP camps. Teachers who commute sometimes come to schools late and leave schools earlier: this creates shorter contact time between teachers and students. Delays in salary payments de-motivate teachers and sometimes force them to take on second jobs to better their living, and this accelerates absenteeism.

It is also difficult to ensure quality because basic instructional materials are in short supply. Besides, there aren't any laboratories in secondary schools in these districts yet at least one laboratory is required for each secondary school. In order to cover the lack of laboratories, the mobile laboratory, which is a bag of science kits, was introduced.

Irregular attendance and absenteeism among children is also a challenge. This can be attributed to several reasons: for example, children sometimes need to do domestic chores such as fetching water and collecting firewood instead of going to school. Also, the fact that schools do not provide lunches affects children's attendance and causes absenteeism. The absence of school lunches makes many pupils less enthusiastic about going to school. The absence of school lunches also makes it hard for pupils who attend school to concentrate properly during lessons. The government encourages parents to prepare packed lunches for pupils, but it is not functioning well so far.

Children's irregular attendance and absenteeism are partly because of lack of parents' interest in sending their children to school. Parents who do not have understanding and appreciation towards education tend to sometimes ask their children to do domestic chores instead of sending them to schools. Furthermore, schooling is expensive for some parents. Although school fees have been wiped away by UPE and USE programs, parents are required to pay for various items when they send children to school; such as school uniforms, stationery, exercise books, etc. Lunches also become economic burdens for many parents in Amuru and Nwoya Districts. These payments make parents hesitate to send children to school. Furthermore, some parents consider that it is not necessary for girls to get an education. The parents' understanding and cooperation is a pre-requisite for expansion of education.

In addition to parents' understanding, support from the community is also important. In particular, community support is essential in Uganda because school management committees, which include community members, are supposed to manage the schools. In reality however, it is still difficult to get community participation and support partly because people are simply not interested in working for the community after the long war. Besides, community members are still pre-occupied with resettlement in home villages. It is also said that existing school management committee members need more training to conduct their responsibilities properly.

Finally, the district office, which should tackle the challenges mentioned above, could not function properly because of lack of officers and equipment. Particularly, it is really difficult for only two officers to cover the tasks of 7 officers. As a result, the officers could not provide necessary support to the schools.

In summary, it can be said that the major challenges of the education sector in Amuru and Nwoya Districts are as follows:

- The number of schools is still inadequate.
- Existing schools do not have adequate facilities.
- There are not enough teachers in schools.
- Teachers' irregular attendance and high rate of absenteeism
- Basic instructional materials are in short supply.
- Irregular attendance and absenteeism among children
- Parents' understanding and appreciation of education is low.
- Support from the community is low.
- The district office lacks officers and equipment.

4. REVIEW OF EXISTING DEVELOPMENT PLANS

4.1 Introduction

For the development of Uganda and Northern Uganda, the following three national development plans were established and have been implemented, aiming at human development, economic growth and reduction of poverty and regional disparity. In this chapter, these four development plans were reviewed to understand future development directions of the study areas and road sub-sector.

- **Poverty Eradication Action Plan (PEAP), 2004/5-2007/8**

The PEAP 2004/5-2007/8 is the government's national framework for all actors in the country designed to achieve a number of key objectives in order to enable Uganda to meet its Millennium Development Goals and economic growth objectives.

- **Peace, Recovery and Development Plan for Northern Uganda (PRDP), 2007-2010**

The PRDP is the regional stabilization and reconstruction plan intended to regain peace, recovery and development in Northern Uganda, which covers three sub-regions, namely West Nile, Acholi and Karamoja Sub-regions. It was drafted for implementation in the 3-year period of 2007-2010. However, in actuality, its implementation was started in the fiscal year of 2009/10.

- **5-year National Development Plan for Uganda (NDP), 2010-2015**

The NDP of 2010-2015 intended to set Uganda on the path to becoming a middle-income economy. It replaces the PEAP and outlines the government's intention to improve road and rail networks, create employment opportunities, improve labour force distribution and use the private sector as the "engine of growth and development".

Furthermore, in this chapter, on-going assistance programmes by donors and NGOs are reviewed to understand the transition taking place in Northern Uganda and Acholi Sub-region from humanitarian assistance to reconstruction and development.

4.2 Review of Government Development Plans and Programmes

4.2.1 Poverty Eradication Action Plan (PEAP)

(1) 1997 PEAP

In 1997, the Government-endorsed Poverty Eradication Action Plan (PEAP) was established as a comprehensive national development planning framework of a 20-year period to reduce the population in poverty from 44 % in 1997 to 10 % by 2017. The long-term strategic

objectives of the PEAP include 1) reduced income poverty and inequality, 2) improved human development and 3) increased GDP growth.

The 1997 PEAP had the following three pillars:

- 1) Increasing the incomes of the poor, through the provision of roads (so that farm produce can reach markets), improved land laws, support for the modernization of agriculture, improved rural market infrastructure, strengthening rural credit and financial services; telecommunications and rural electrification
- 2) Increasing the quality of life of the poor, through increased provision of primary health care, water and sanitation, and primary education, as well as preserving the environment
- 3) Strengthening good governance, through improved security, decentralization, transparency, accountability, and popular participation

These three pillars should stand on a foundation of continued macroeconomic stability.

The PEAP originated from strong domestic political impetus to consolidate the gains from early reforms launched in the 1980s and 1990s aimed at eliminating structural and financial bottlenecks and focused on the need to reduce poverty.

(2) 2000 PEAP

The PEAP has been revised and implemented on a 3-year cycle, matching the medium-expenditure frameworks. The first revision was made in 2000 and the revised PEAP was accepted as the country's PRSP by the World Bank. It became the basis for Uganda to become the first country to receive the assistance of the heavily indebted poor countries initiative (HIPC Initiative).

The 2000 PEAP was better supported by a poverty assessment done in 1999 and by a monitoring and evaluation strategy established in 2000. In addition, a preliminary cost estimate was prepared for the 2000 PEAP.

- 1) Goal 1: Rapid and sustainable economic growth and structural transformation
- 2) Goal 2: Good governance and security
- 3) Goal 3: Increased ability of the poor to raise their incomes, through participation of the poor by access to services and information, promotion of employment, and provision for the livelihoods of the disadvantaged
- 4) Goal 4: Enhanced quality of life of the poor, through improved service delivery of health, education and housing, and tackling cross-cutting issues

(3) 2004 PEAP

The PEAP was revised for the second time in 2004. At each revision the PEAP had maintained its overall focus, but the content had evolved to address issues identified in the previous cycle and emerging developments.

While the poverty ratio had fallen considerably during the 1990s, household surveys revealed that the proportion of the people below the poverty line increased from 34 % in 2000 to 38% in 2003.

The PEAP 2004 put larger emphasis on government functions and effort in economic development than previous PEAPs, as well as on security and governance.

The PEAP 2004 tried to link public expenditure to the priorities of PEAP. However, it is said that the implementation of the PEAP 2004 did not have much impact on budget allocation in accordance with PEAP priorities.

The PEAP identifies the following five "Pillars", that should be realized:

Pillar 1: Economic Management

- Maintenance of macroeconomic stability
- Fiscal consolidation
- Boosting private investment

Pillar 2: Enhancing Production, Competitiveness and Incomes

- Modernisation of agriculture
- Preservation of the natural resource base, particularly soil and forests
- Infrastructure including roads, electricity and railways; better maintenance, cost-reduction and private sector participation will be key to achieving improvements in the context of fiscal consolidation.
- Enhancing private sector skills and business development.

Pillar 3: Security, Conflict-resolution and Disaster Management

- Ending the rebel insurgency, by peaceful means if possible
- Ending cattle-rustling
- Dealing with internal displacement and abduction, which are major sources of distress in contemporary Ugandan Governance

Pillar 4: Good Governance

- Human rights and democratisation
- The development of a better legal system
- Transparency, accountability and the elimination of corruption

Pillar 5: Human Development

- Primary and secondary education: with a clear focus on quality and the ultimate objective of learning, and with better targeting of public expenditure on secondary education for those who could not otherwise afford it.
- Improving health outcomes: this will be a joint achievement across several sectors
- Increasing people's ability to plan the size of their families
- Community empowerment including adult literacy

As part of the PEAP process, a working group was formed to focus on cross-cutting issues, in particular gender, the environment and HIV/AIDS. Other cross-cutting issues include employment, population, social protection, income distribution and regional equity.

(4) Third Revision of PEAP, 2008

June 2007 was the 10th year of PEAP implementation, the mid-point towards 2017. Over the decade a number of issues had been raised to challenge the PEAP that need to be addressed by evaluation - both in terms of its policy relevance and effectiveness in light of rapidly emerging development challenges and opportunities in Uganda, and in terms of the quality and utility of the measures used to assess progress. The current PEAP 2004 (2004/5-2007/8), the third revision, expired in June 2008. Although the third revision process of the PEAP was started, it was taken over by the preparation of the 5-year National Development Plan (2010-2015).

(5) Priority Actions for Road Sub-sector

The PEAP specifies priority actions to be done by the government and private sectors for the road sub-sector as follows:

National Level

- Continue to invest in road rehabilitation and maintenance in accordance with the RSDP
- Ensure that adequate funds are available for maintenance. The sector will have responsibility for allocating funds between rehabilitation and maintenance within its overall ceiling.
- Enforce the axle load restrictions
- Develop a price index for construction to enable the unit cost of construction to be monitored more accurately.
- Establish the National Road Authority in 2004/05 financial year.

District Level (for district, urban and community access roads)

- Continue to provide financial resources for DUCAR roads including urban infrastructure improvement.
- Give priority to those rural roads which could unlock areas with potentially high agricultural surplus and also enable the rural populace to access basic social services as well as product and input markets.
- Strengthen local capacity for road management with a focus on labour intensive work methods to provide employment and income.
- Examine the scope for enhancing support to community roads; this may be an appropriate area for spending under the Local Government Development Programme (LGDP) and the Non-Sectoral Conditional Grant (NSCG)
- The White Paper specifies a long-term strategy for the sub-sector and how it is to be implemented

Private Sector Participation

- Support pilot activities to be launched in FY 2005/06 for area wide long-term maintenance contracts on a performance basis.
- Develop a strategy to increase private sector participation in management, investment and maintenance of projects within the transport sector as well as strengthening the national construction industry.

4.2.2 Peace, Recovery and Development Plan for Northern Uganda (PRDP), 2009-2011

(1) Background

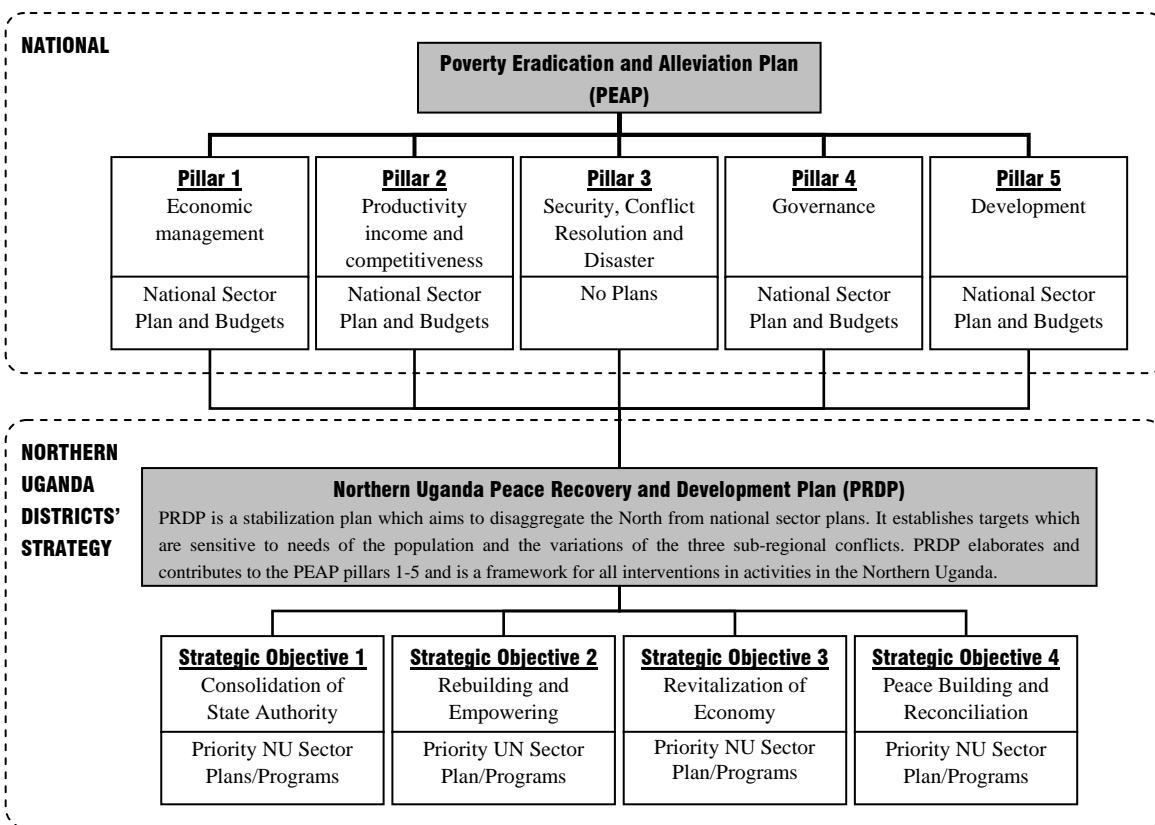
In 2006, the National Peace Recovery and Development Plan (PRDP) for Northern Uganda was drafted as a commitment by the Government of Uganda as a national program with the overarching goal to stabilise the North. In 2007, PRDP was launched as an official national program; however, the actual funding was not started until 2009.

Forty districts of Northern Uganda, covering sub-regions of West Nile, Lango, Acholi, Karamoja, Elgon and Teso, are beneficiaries of the PRDP.

(2) Outline

The overall goal of the PRDP is stabilization in order to regain and consolidate peace and lay the foundations for recovery and development in Northern Uganda, which has suffered from prolonged conflicts over the previous 20 years.

The targets and objectives of the PRDP are to contribute to the overall objectives of the PEAP. After implementation of the PRDP programmes, the targets of the PRDP will be reviewed and set in line with national goals of the PEAP. Figure 4.2.1 shows the relationship between the PRDP and the PEAP.



Source: Peace, Recovery and Development Plan for Northern Uganda (PRDP), 2007-2010

Figure 4.2.1 Relationship between PRDP and PEAP

The PRDP identifies the following 14 priority programmes under the four strategic objectives of 1) consolidating state authority, 2) rebuilding and empowering the communities, 3) revitalising the economy and 4) peace building and reconciliation and the overall goal of peace and recovery:

Strategic Objective 1: Consolidation of State Authority

- Facilitation of Peace Agreement initiatives
- Police Enhancement Programme
- Prisons Enhancement Programme
- Judicial Services Enhancement Programme
- Local Government Enhancement Programme
- Rationalization of Auxiliary Forces Programme

Strategic Objective 2: Rebuilding and Empowering Communities

- Emergency Assistance to IDPs Programme
- IDP Return/Resettlement Programme
- Community Empowerment and Recovery programmes-health, education, water, livelihood support.

Strategic Objective 3: Revitalization of the Economy

- Production and Marketing Enhancement Programme-agriculture, livestock, fisheries
- Infrastructure Rehabilitation and Urban Improvement – roads, bridges, power
- Environment, Land, Natural Resource Management-wood coverage, wetlands

Strategic Objective 4: Peace Building and Reconciliation

- Public Information Education and Communication (IEC) and Counselling
- Amnesty, Demobilization and Re-integration of ex-combatants (ADRP)

The estimated cost of the PRDP over the three year period is 1,091.7 billion Ushs (606.5 million USD). A total of 30 % of the funds will be committed by the government and the remaining 70 % from development partners.

(3) Rehabilitation and Improvement of Roads

Under the Strategic Objective 3 for Revitalization of the Economy, priorities are given to roads and bridges.

The PRDP pays much attention to rehabilitation and maintenance of the districts' connectivity and community road network in Northern Uganda in order to improve the population's access to services and to open up communication between regions and villages.

There is a need to open up roads in high return areas of IDPs. However, due to limited budgets, rehabilitation funds are available only for very few districts from the central government. In fact, only 8 districts out of 81 had rehabilitation funds allocated in the financial year 2006/07.

The lack of funding for the maintenance of district roads has resulted in further deterioration of the roads. Such small budget allocations have been exacerbated by the creation of more districts. For these reasons, PRDP allocated priority funds for rehabilitation and maintenance of district roads and community access roads.

Table 4.2.1 Required Finances for Road Maintenance and Rehabilitation for PRDP

Activity	Length (km)	Budget (USD)
Routine Maintenance	1,714	1,285,500
Periodic Maintenance	1,300	1,949,250
Rehabilitation Maintenance	1,349	20,227,500
Community Roads Rehabilitation	2,846	5,691,600
Total Budget		29,153,850

Source: PRDP 2007-2009

Table 4.2.2 Budget for Road Maintenance and Rehabilitation in the PRDP

Annual Cost (Ushs)			Total Cost (Ushs)	Budget (USD)
Year 1	Year 2	Year 3		
12,526,929,281	18,790,393,922	31,317,323,203	62,634,646,406	34,797,026

Source: PRDP 2007-2009

4.2.3 5-year National Development Plan for Uganda (NDP), 2010-2015

(1) Outline

The 5-year National Development Plan (NDP) for Uganda for 2010-2015 was prepared as a new national development framework replacing the PEAP. It was established and announced in April of 2010.

The Vision of Uganda is “A transformed Ugandan society from a peasant to a modern and prosperous country within 30 years”. This implies transformation of the Ugandan economy and society from a predominantly peasant low income to a middle income country within 30 years.

The National Development Plan (NDP) aims at firmly setting Uganda on the path to becoming a middle-income economy. In the first five years from 2010 to 2015, the NDP aims to increase the annual earning of all Ugandans from the 1 Million Ushs. to 1.8 Million Ushs. during the next five years.

Infrastructure and the private sector are put at the heart of the NDP to increase the country's earning capabilities between now and 2015.

1) Key Binding Constraints

In the course of the NDP preparation process, the following most binding constraints were identified:

- Weak public sector management and administration
- Inadequate financing and financial services
- Inadequate quantity and quality of human resources
- Inadequate physical infrastructure
- Gender issues, negative attitudes and mind-set and cultural inhibitions
- Low application of science and technology
- Inadequate supply and limited access to critical production inputs

2) Objectives

The theme of the NDP is “Growth, Employment and Socio-Economic Transformation for Prosperity”. To achieve this, the following eight strategic objectives were identified:

- Increasing household incomes and promoting equity
- Enhancing the availability and quality of gainful employment
- Improving stock and quality of economic infrastructure
- Increasing access to quality social services
- Promoting science, technology, innovation and ICT to enhance competitiveness
- Enhancing human capital development
- Strengthening good governance, defence and security
- Promoting sustainable population growth and the use of environmental and natural resources

(2) Priority Actions for Roads

In order to improve the stock and quality of road infrastructure, the following strategies are included by the NDP:

- 1) Upgrade specific National Roads from gravel to Class I and II bitumen standard
 - Upgrade National Roads to bitumen roads from 15 % (3,050 km) to 21 % (4,105 km) by 2015
 - Reconstruct or rehabilitate sections of National Roads
 - Construction of double carriageways in specific sections of National Roads to improve their capacity
- 2) Improve the condition of the National Roads Network from the current 60 % in fair to good condition to 85 %
 - Upgrade certain District Roads to National Roads
 - Maintain National Roads in good condition
 - Enforce axle load control and install an automated system
 - Increase road safety through specific road improvements
 - Procure and operationalise additional road vehicle ferries
- 3) Develop and maintain selected strategic roads for tourism, minerals, oil and gas and industry
 - Construct and maintain strategic roads leading to major tourism sites, mining areas, oil and gas exploitation and production areas, urban and rural industrial areas
- 4) Upgrade, rehabilitate and maintain District, Urban and Community Access Roads
 - **District Roads:** Rehabilitate 11,067 km, including 10,095 km with low cost sealing (LCS); undertake periodic maintenance on 4,500 km each year, and place 21,513 km under routine maintenance
 - **Urban Roads:** Rehabilitate and apply low-cost seals to 2,550 km; undertake periodic maintenance on 300 km each year, place 3,140 km under routine maintenance; install street lighting and construct side pavements over 486 km
 - **Community Access Roads:** Improve 1,000 km each year to access level II

4.3 Review of Assistance Situation and Policies of UN Agencies and Donors

4.3.1 National Policy for Internal Displaced Persons, Transition Strategy and Cluster Approach in the Humanitarian Phase

In 2004, with the support of UNOCHA, the government of Uganda developed the National Policy for Internally Displaced Persons. The document defined the roles of different actors and consequently established the Inter-Agency Technical Committee (IATC) as a planning and coordinating body. The committee consists of the Office of Prime Minister (OPM), relevant ministries, private sectors, UN agencies, NGOs and donors.

Since Uganda's public administration had been decentralized to the district level, the District Disaster Management Committees (DDMCs) including relevant government departments, humanitarian agencies and IDP representatives, played a leading role in humanitarian coordination.

In 2007, a transition strategy, called the "Parish Approach" was formulated, in responding to the on-going returning process and emergence of transit sites (return sites). In this transit strategy, rather than focusing humanitarian activities on IDP camps, provision of basic services in all parishes was emphasized

On the other hand, in late 2005, Uganda became a pilot country for implementation of the cluster approach. The clusters were activated at the national level and at the district level in northern Uganda, including Acholi Sub-region, Lang Sub-region and Teso Sub-region.

There are nine clusters active in Acholi Sub-region. Each cluster has been led by UN agencies, and co-led by the district-level organizations as follows:

Table 4.3.1 Night Clusters Active in Acholi Sub-region

Cluster	Lead UN Agencies	Co-lead District-level Officer in Charge
Coordination	UN OCHA/UNDP	
Camp Phase-out	UNHCR	Community Development Officer (CDO)
Education	UNICEF	District Education Officer (DEO)
Food Security & Agricultural Livelihoods	FAO & WFP	District Production Officer (DPO)
Governance and Peace Building	UNDP	Local Council V (LC-V)
Infrastructure & Non Agricultural Livelihoods	UNDP	Community Development Officer (CDO)
Health, Nutrition & HIV/AIDS	WHO	District Health Officer (DHO)
Water, Sanitation and Hygiene	UNICEF	District Water Officer (DWO)
Protection	UNHCR	Uganda Human Rights Commission (UHRC)

Source : UNOCHA

Since 2007, the government of Uganda has officially tried to implement transition policies. IDP camps were supposed to be closed by the end of 2009. However, the closure date for IDP camps and clusters had been repeatedly postponed. By July 2010, the all IDP camps were closed in Amuru District.

The international humanitarian funding for Uganda had increased largely since 2003 and hit the peak at over US\$ 300 million in 2008. In 2009, the international funding dropped to less than US\$ 200 million.

The consolidated appeal (CAP) for humanitarian assistance for Uganda in 2010 was US\$ 197 million. However, by June 2010, the actual committed funding accounts for only 31% of Uganda CAP 2010.

Table 4.3.2 Activities of Donors and NGOs in Anmuru and Nwoya Districts, July-September 2010

Source: UNOCHA, September 2010

4.3.2 Transition from Humanitarian Phase to Recovery and Development

In the transition period from the humanitarian phase to recovery and development, the donor funding for humanitarian response is observed to gradually decrease. In addition, larger roles should be played by the national and district governments.

In this situation, a variety of projects have been implemented with donor assistance, including the following:

World Bank

Northern Uganda Social Action Fund (NUSAf), 2003-2008

World Bank and DFID

Northern Uganda Social Action Fund (NUSAf 2)

EC (European Commission)

Northern Uganda Rehabilitation Programme (NUREP)

USAID

Northern Uganda Transition Initiatives (NUTI), 2008-2011

Stability, Peace and Reconciliation in Northern Uganda (SPRING), 2008-2011

Northern Uganda Development of Enhanced Local Governance Infrastructure and Livelihoods (NUDEIL)

UNDP

District Development Programme III

4.3.3 Northern Uganda Social Action Fund (NUSAf-World Bank)

A five-year Project (2003-2008), the Northern Uganda Social Action Fund (NUSAf) was one of the government efforts to reconstruct and develop the Northern Region.

The World Bank provided the government of Uganda with a loan of 100 million USD to assist these efforts of the government to tackle poverty and bring about development in Northern Uganda.

NUSAf covered 29 districts, namely Adjumani, Arua, Koboko, Maracha / Terego, Moyo, Nebbi, Yumbe, Apac, Oyam, Gulu, Amuru, Kitgum, Pader, Lira, Amolator, Dokolo, Kaberamaido, Katakwi, Amuria, Kumi, Bukedea, Palisa, Budaka, Soroti, Kotido, Kaabong, Abim, Nakapiripirit and Moroto.

NUSAf provided communities with direct grants to the communities for the purpose of overcoming underdevelopment through community action, leadership development, resource mobilization, and strengthening the ongoing reconciliation processes in the region. In NUSAf, communities were empowered to identify and prioritize their specific needs and manage processes and outcomes based on their own value systems.

The project has four components; (i) Community Reconciliation and Conflict Management (CRCM), (ii) Community Driven Initiatives (CDI), (iii) Vulnerable Groups Support (VGS) and (iv) Institutional Development (ID).

4.3.4 NUSAF 2 (World Bank and DFID)

The second phase of the Northern Uganda Social Action Fund (NUSAF) was launched in February 2010. NUSAF 2 covers 40 districts in Northern and Eastern Uganda. About 2 billion Ushs for NUSAF 2 will be funded by World Bank and DFID.

This programme aims at uplifting the living standards of those who were disadvantaged by the last 20 years of war. The objective of NUSAF 2 is to improve access of the beneficiary households to income earning opportunities and basic socio-economic services.

In NUSAF 2, more roles of district and sub-county local governments are expected, especially to identify targeted households.

4.3.5 Northern Uganda Rehabilitation Programme (NUREP-EC)

Funded by the European Commission, the Northern Uganda Rehabilitation Programme (NUREP) is a government programme which is being implemented under the supervision of the Office of the Prime Minister. NUREP was started in December 2006.

NUREP aims at strengthening the self reliance and protection of local populations in Northern Uganda by rehabilitating social infrastructure, providing livelihood opportunities and improving the capacity of local governments to respond to both conflicts and disasters.

NUREP's overall objective is "Increased Potential for the restoration and preservation of peace and the creation of an enabling environment for development in Northern Uganda".

The objective of NUREP is "Enhanced ability of people in Northern Uganda to respond to conflict and post-conflict situations while protecting and improving their livelihoods".

NUREP supports actions and activities under the Peace Recovery and Development Plan (PRDP) of the Government of Uganda.

In collaboration with the local governments, the implementing partners for NUREP include civil society organisations including NGOs and community based organisations, UN agencies and the Red Cross and private sectors. Most actions relating to reactivation of the production sectors and peace building and reconciliation are carried out with the support of partner NGOs.

Actions related to improvement of conditions/quality of life of returnees are implemented through works contracts by the PMU. In addition, NUREP provides local governments with training and equipment, as well as finances for monitoring the NUREP activities.

4.3.6 Northern Uganda Transition Initiatives (NUTI-USAID)

Northern Uganda Transition Initiatives (NUTI), a USAID project, began its operation in Acholi Sub-region in June 2008 and the project is scheduled to continue until May 2011, currently targeting only Acholi Sub-region. NUTI operates under the following three major objectives:

- Increasing visibility of the Local Government
- Media support

- Truth and reconciliation – Ke Kwaro
- 1) Increasing the Visibility of the Local Government

NUTI/USAID supports the lower local government (sub-county) by conducting strategic activities selected by identifying priority gaps between District Development Plans and Sub-county Development Plans.

 - Construction and rehabilitation of schools
 - Constructing water points (boreholes)
 - Rehabilitating and repairing buildings (teachers' houses, health centres and staff housing, sub-county administrative quarters, schools)
 - In agriculture, construction of storage facilities
 - Buying farm tools for communities
- At the sub-county level, projects are selected and monitored by local leaders. Currently in former Amuru District, NUTI implements its activities in four sub-counties (Purongo, Pabbo, Alero and another).
- NUTI activities are conducted by contracting out to local contractors, most of whom are based in Gulu and Lira. About 90% of NUTI construction works contracts are given to local companies
- 2) Media Support
 - Giving technical support /advice to radio stations
 - Conducting outreach programmes to communities
 - Providing equipment to radio stations
 - Helping local governments to pass across messages to local communities by providing a platform
 - Printing magazines
 - Training journalists
 - 3) Truth and Reconciliation – ‘Ke Kwaro’

NUTI has employed four people to re-organise ‘Ke Kwaro’ and has provided the equipment for healing practices that are conducted through:

- Cleansing ceremonies
- Reburials (descent burials)

NUTI is not concerned with road construction.

4.3.7 Stability, Peace and Reconciliation in Northern Uganda (SPRING-USAID)

SPRING is to be in line with the transition from humanitarian relief operations to longer-term development activities and in conjunction with the Peace, Recovery, and Development Plan for Northern Uganda (PRDP).

SPRING is a three-year stabilization project funded by USAID. The SPRING Project started its operations in February 2008. The goal of SPRING is to mitigate the causes and consequences of the conflict in Northern Uganda.

In SPRING, there are three core components:

- Peace-building and Reconciliation
- Economic Security and Social Inclusion
- Access to Justice

SPRING works closely with local governments, civil society actors and private sectors to promote the stabilization of those areas most affected by the last 20 years of conflict. Intensive activities will be implemented in the six districts. Pilot economic activities will be implemented in fifteen sub-counties.

SPRING will mobilize the 2.8 million USD STABILITY Grant Fund, for funding various activities, including stabilization interventions, cultural and sporting exchanges, and multi-media activities on peace and justice.

SPRING activities are conducted through existing civil society organizations and private sector companies, in consultation with district local governments.

4.3.8 Northern Uganda Development of Enhanced Local Governance Infrastructure and Livelihoods (NUDEIL-USAID)

The Northern Uganda Development of Enhanced Local Governance Infrastructure and Livelihoods (NUDEIL) project is a transitional development program designed in line with the Peace, Reconciliation, and Development Plan (PRDP) of the Ugandan government.

The purpose of NUDEIL project is to provide technical support to district local governments to improve their capacity in engineering design, the procurement process, financial management, transparent reporting, and public outreach, and to deliver services at the community level through rehabilitation of public infrastructure.

The NUDEIL project has the following two objectives:

- To support up to four District governments in Northern Uganda with the delivery of basic services to areas where Internally Displaced Persons (IDPs) are returning
- At the same time, to infuse cash into the recovering local economy by using labor intensive methods.

The overall program has two components:

- Technical assistance from an architectural and engineering sub-contractor
- Large sector assistance package that will use government systems for implementation.

5. DEVELOPMENT POTENTIAL AND ISSUES OF AMURU AND NWOYA DISTRICTS

5.1 Development Potential

In the previous chapters (Chapters 2 and 3), major characteristics of Acholi Sub-region and Amuru and Nwoya Districts were analyzed. Based on these analyses, development potential and issues of Amuru and Nwoya Districts are identified. In this section and the next section, a summary of development potential and issues are presented.

(1) Large Agricultural Potential

Amuru and Nwoya Districts are endowed with rich soils and much rainfall. This enables farmers to grow various crops and harvest many of those crops twice a year.

In Amuru and Nwoya Districts, there are still vast tracts of land which have not been fully used for crop production and livestock rearing. After accommodating returnees in their home villages, the population density of Amuru and Nwoya Districts as a whole will be moderate.

Although the land in Amuru and Nwoya Districts is mostly communal land, there are some large-scale privately leased lands in certain parts of the districts. There is development potential for commercial agriculture using modern technology.

(2) Good Inter-Regional Road Connections

Amuru and Nwoya Districts are well connected to other regions by national roads.

A well paved national road (about 350 km) connects Gulu Town, capital of Acholi Sub-region, to Kampala. The national road from Kampala branches out from Karuma to West Nile Sub-region, leading through Packwach to Arua. The distance between Arua Town and Gulu Town is about 250 km. An all-weather gravel road runs from Gulu to the border with Sudan. The distance between the border and Gulu Town is 140 km. Gulu Town is also connected to Lira Town, capital of Lango Sub-region, by a gravel road (125 km).

The major national roads running through the eastern part (in the north-south direction) and the southern part (in the east-west direction) of Amuru and Nwoya Districts have helped Amuru and Nwoya Districts ($9,000 \text{ km}^2$ in total), secure mobility within the districts.

(3) Geographical Proximity to Market for Agricultural Produce

In surrounding areas of Amuru and Nwoya Districts, there are large markets for agricultural produce, including Gulu Town, Lira Town and Southern Sudan, as well as Kampala. As stated

earlier, Gulu Town is well connected to Lira Town, Southern Sudan and Kampala by well developed national roads.

(4) Effective Trading Network for Agricultural Produce

In Acholi Sub-region including Amuru and Nwoya Districts, strong and effective trading networks for agricultural produce exist.

In Amuru and Nwoya Districts, there are nearly 40 trading centres. Produce shops in trading centres buy agricultural produce from farmers and sell them to middlemen.

Trading centres along major national roads attract buyers with large trucks from Kampala, Lira and Sudan. Produce shops at trading centres which are not located along the major national roads sell their produce to middlemen, who buy produce and sell to produce shops in Gulu Town.

Gulu Town has a large wholesale commercial function supported by a large number of produce shops (over 500 shops), which buy agricultural produce through middlemen not only from Amuru and Nwoya Districts but also from surrounding districts. These produce shops in Gulu Town sell collected produce to middlemen coming from Kampala, Lira, Sudan and Kitgum.

(5) Existence of Bases of Social Infrastructure and Services

Amuru and Nwoya Districts were under conflict for a long time. However, social services (water, health, and education) were consistently provided at IDP camps even during the conflict. The conflict did not stop provision of social services. As a result, communities are ready to receive more social services. In fact, they don't wait for services from the government; for instance, they build necessary facilities such as community schools by themselves. In addition, service providers (district, health units and schools) have retained various resources such as human resources (district officers, health staff, and teachers) and necessary equipment and materials. Although they have not been sufficient, certain levels of services have been provided in the districts. There is a possibility that much better services can be provided in the near future.

(6) Closeness to Regional Centre, Gulu, where Universities and Hospitals are Located

One of the merits of Amuru and Nwoya Districts is that the districts are close to Gulu Town, regional centre of Acholi Sub-region. Gulu Town has universities and is a centre of education and human resource development. In addition, there is an advanced hospital supported by Italy, namely Lacor Hospital, in Gulu Town.

(7) Tourism Potential

Murchison Falls National Park, which is rich in wild life resources and has the second largest number of visitors in Uganda, is located in the south-western part of Nwoya District. Additionally, access roads from the Nwoya side to the national park are in good condition.

Traditional living styles as well as cultures are still prevalent in the districts of Amuru and Nwoya and therefore, there is a potential to expand tourism by linking nature tourism in Murchison Falls National Park and village tourism/ culture tourism inside the districts.

(8) Existence of Old Railways

Railway lines, which were constructed and operated during the colonial period, connected Mombasa through Tororo, Kumi, Lira, Gulu, to Pakwach. Currently, railways from Lira, Gulu to Pakwach are not under operation. If the railways are rehabilitated for reopening, with due consideration given to various difficulties that could possibly be encountered, possibilities to boost economic activities including agro-processing could increase greatly.

5.2 Development Issues

(1) Lack of Economic Infrastructure

Economic infrastructure, such as trunk roads, electricity and water supply, are not well developed due to the prolonged conflict. Major economic sectors in Amuru and Nwoya Districts are agriculture and small businesses at trading centres; employment opportunities are very limited. Industries such as agro-processing need to be established at towns like Gulu, Pabbo and Anaka. Economic infrastructures like electricity and water supply are needed for establishment of industries.

(2) Lack of Provision of Social Infrastructure and Services

Social infrastructures and services in the districts are not yet adequate, and are particularly in short supply in home villages.

It was relatively easy to provide social infrastructures and services at IDP camps and return sites where many people gathered to live. However, it is difficult to provide them at sub-villages which are scattered all over the districts and each of which has low population density. Locating health units and schools at areas where accessibility is not good makes it difficult to keep staff and teachers at these facilities. Poor accessibility to these facilities also makes it difficult for government officials to monitor and supervise their services.

(3) High Transport Costs

Amuru and Nwoya Districts have vast land which is suitable for agriculture. However, construction and improvement of roads and bridges that connect fields and markets has not been sufficiently implemented. As a result, transportation costs of agricultural produce are still high and farmers are forced to sell their products at lower prices.

(4) Unstable Rain

On average, Amuru and Nwoya Districts have enough rain for agriculture. However, the recent rainfall pattern has been erratic and irregular, which could affect agricultural production adversely. This could also cause a food security problem.

(5) Lack of Labour Force for Agriculture

The prolonged conflict decreased the number of domestic animals such as cattle. As a result, it is difficult to implement ox-ploughing to increase productivity. Some people have started to utilise tractors for agriculture. However, tractors are only used in areas that are close to national roads and have a good road network. Tractors cannot be utilised in areas with poor road access.

(6) Land Disputes

Land for houses as well as for agricultural production is adequate in consideration of the size of Amuru and Nwoya Districts as a whole. Future population density is also assumed to

remain low. However, there are various land disputes in the districts, which are partly because people were forced to leave their ancestral lands and become IDPs. Land disputes occur even in home villages where there seems to be sufficient land.

(7) Promotion of Commercial Farming

Although there is vast land suitable for agriculture, agriculture in the districts is still practised on a small scale, and commercial farmers only exist in a specific part of the districts. Measures to promote commercial farming should be considered with the aim of activating agriculture in the region.

There is a possibility that commercial farming will be developed in the future since some land is being leased to private individuals and companies, which could be the basis for large-scale commercial farming.

At the same time, existence of such leased lands could create some problems: for example, it may become difficult to secure lands for public roads and public facilities and commercial farmers might have land disputes with local farmers in that area.

(8) Weak Tourism Development

Although Amuru and Nwoya Districts have attractive tourist potential sites including Murchison Falls National Park, the northern part of which is located in Nwoya District, they have not enjoyed significant economic benefits from them. There is a need for consideration of how the national park may be utilised to promote the tourism sector in Amuru and Nwoya Districts.

(9) Lack of Human Resources in District Offices

Because former Amuru District is a newly established district, district officers have not been deployed as regulated, and many sectors do not have sufficient district officers. In addition, existing district officers do not have sufficient experience and qualification as district officers. However, some of them have experience in Gulu District.

On the 1st of July 2010, former Amuru District was divided into two districts, namely Amuru District and Nwoya District. Although the aim of increasing the number of districts is to bring the public services closer to the local people, it is not easy for new district governments to hire qualified and experienced personnel to operate new district government offices. In the short-term, the increase of new districts might decrease the quality and performance of local government services.

(10) Dependency Syndrome

Daily food aid and social services had been available at IDP camps, which have made the people dependent on external assistance. Since the people have become dependent on external support, they have become less self-reliant and less active at improving their livelihoods by themselves. It is essential for people in the districts to involve themselves actively in development activities, considering that government support will become very limited after the conflict resolution.

(11) Weak Solidarity among People

Although it varies among communities, solidarity among the people has been weakened by the prolonged conflict. It would be effective and efficient if the agricultural activities and management of social services such as water points and education in each village are

conducted by voluntary groups of villagers. Such kinds of community-based activities and management are supposed to constitute the base of the Ugandan administration system and are fervently promoted by the government. However, such kinds of activities and local participation are not strong in many communities of Amuru and Nwoya Districts partly due to the influence of the conflict.

(12) Other Issues

The district government of former Amuru District identified the following key issues in its development plan for 2009/10-2011/12.

- Limited access to safe water
- Poor sanitation and hygiene
- Poor health of the population
- Low production and productivity
- HIV/AIDS
- Gender disparity
- Low local revenue base
- Low level of community participation in the development process
- Sprawl in rural growth centres
- Perpetual poor performance of the Lower Local Government
- Low level of science and technology

5.3 SWOT Analysis

A SWOT analysis was conducted through analysing strengths, weaknesses, opportunities and threats for Amuru and Nwoya Districts. Development potentials and issues described in the previous sections are considered to be the strengths and weaknesses of Amuru and Nwoya Districts. Opportunities and threats to development are described in this section.

(1) Opportunities

1) More Assistance towards Development

It is expected that the support provided to the Acholi Sub-region would shift greatly from humanitarian to developmental aid given that the conflict has ended.

2) Continuity of Stability and Economic Infrastructure Development

The just rehabilitated road from Kampala to Gulu town shortens travel time between Kampala and Gulu as well as lowers transportation costs dramatically.

Completion of prospective national road improvements between Gulu and Nimule as well as between Lira and Soroti would create a direct route from Amuru and Nwoya Districts to the border of Kenya, which will decrease transportation costs to Mombasa Port in Kenya.

The development of other economic infrastructure, such as a power supply (hydroelectric power plant at Karuma), is also expected in the Northern Region.

In addition to these economic infrastructure developments, the continuity of stability and peace in the region could boost investments and promote more development of economic infrastructures in Northern Uganda including Acholi Sub-region.

3) Promotion of Tourism Industry

Along with the increase of tourists visiting Murchison Falls National Park, it is expected that the number of tourists who visit Amuru and Nwoya Districts at the same time would also increase. This potential tourism development can be fostered by a more stable peace situation in the region.

(2) Threats

The following threats will continue to exist more or less in the future in Amuru and Nwoya Districts, as well as in Acholi Sub-region.

- Erratic rainfall
- Rise of food prices partly due to erratic rainfall and partly due to increase in demand for food crops from Southern Sudan
- Insufficient developmental assistance
- Return of LRA
- Possibility of insufficient supply of electricity in Gulu which hinders the urban development of the town
- Possibility of delay of road development in Gulu which makes roads inside Gulu bottlenecks of the region

Table 5.3.1 Results of SWOT Analysis shown in the District Development Plan 2009/10-2011/12 for Former Amuru District

Strength	Strategies to Exploit
Favourable climate	The rainfall pattern that includes two annual rainfall peaks could be used to grow crops twice a year (two crop seasons).
Very fertile and stable soils	Commercializing agriculture
Rich culture	The hospitality of the people makes it easy for immigrants to integrate and bring development which could be exploited through visits.
Landing site on River Nile	Promoting fishing on the Nile would lead to the growth of the fishing industry and creation of employment opportunities.
Tourist sites	Rehabilitation of tourist sites to generate local revenue
Oil	Revenue sharing with the central government (12% royalty)
Opportunities	Strategies to Exploit
Ready markets	Increase agricultural production for the ready markets in the neighbouring districts, including the Sudan
Investors influx	Formalizing ownership of customary lands and leasing to investors
Weakness	Strategies to Control
Narrow local revenue base	Take advantage of the booming trade between Uganda and Sudan to establish a market place on the Sudan border at Elegu (Bibia)
Poor O&M of facilities	Promotion of community involvement in project identification, implementation, commissioning and sustainability for ownership
Environmental degradation	Promotion of return and resettlement of IDPs and subsequent dismantling of IDP camps
Moral degradation	The IDP camps are the source of moral decay. Return and resettlement of IDPs would reverse the situation.
High incidences of epidemics and pandemics	Return and resettlement of IDPs would go a long way to reduce the incidences of epidemics and pandemics.
Abject poverty in communities	Return and resettlement of IDPs would increase access to land for increased food production and income generation.
Land mines and UXOs	Demining that is ongoing needs to be sped up because it is slowing the return process.
Unplanned urbanization	Speed up the planning of rural growth centres
Deadly land disputes	Speed up the formation, training and operation of area land committees to sensitise people and settle the widespread land disputes
Absence of commercial banks ¹	Create conducive atmosphere, lobby and attract commercial banks
Threats	Strategies to Combat
Flight of human capital	Attract investors to boost employment opportunities
The inconclusive Juba peace talks	Advocate for resumption of talks until their logical conclusion

Source: Amuru District Local Government (June 2009), the Approved Three-Year Rolled Development Plan 2009/10-2011/12

¹ USAID has a plan to provide Ecobank with a grant for establishing its branch office in former Amuru District.

6. SOCIOECONOMIC FRAMEWORK OF AMURU AND NWOYA DISTRICTS

6.1 Introduction

This chapter aims at preparing a socio-economic framework and projecting future population in Amuru and Nwoya Districts. This socio-economic framework will indicate demographic characteristics of Amuru and Nwoya Districts in the next decades and demonstrate how the return process of the IDPs will progress. It will also provide essential inputs to determine the priority of road improvement projects in Amuru/ and Nwoya Districts and to test the economic viability of these priority projects, which are separately discussed in this report.

Future population in Acholi sub-region and future economic growth rate in Uganda and neighbouring countries are separately projected for discussion of the traffic demand forecast. The intermediate year and target year are set as Year 2018 and 2030, respectively.

6.2 Literature Review

(1) UBOS

In 2007, the Uganda Bureau of Statistics (UBOS) disclosed population projections up to 2017. This population projection was made using the 2002 population census as the baseline data. UBOS also produced detailed projections broken down to district and sub-county levels. Considering the impact caused by HIV/AIDS, two population projection scenarios have been made including high variant and low variant scenarios. In the high variant scenario, the population of Uganda is estimated to increase from 30.2 million in 2007 to 43.7 million in 2017 with an annual growth rate of 3.7% p.a. While, in the low variant projections, it is estimated at 28.6 million in 2007 and 40.6 million in 2017 with an annual growth rate of 3.6% p.a.

Table 6.2.1 2002-2017 Population Projection by UBOS

Scenario	2002 (million)	2007 (million)	Growth Rate (2007/02)	2017 (million)	Growth Rate (2017/07)
Low variant	24.1	28.6	3.5%	40.6	3.6%
High variant	24.1	30.2	4.6%	43.4	3.7%

Source: UBOS (2007) Projections of Demographic Trends in Uganda 2007-2017

Looking at the population figures in Acholi sub-region as broken down to districts, both population size and growth rate are very distorted amongst districts in Acholi. Former Pader is the largest district in Acholi sub-region in terms of population size (450,000 in 2009 and 672,000 in 2017). Former Amuru is the smallest district population-wise and the population of

former Amuru District is projected to be 210,000 in 2009 and 264,000 in 2017 with a population growth rate of 2.9% p.a.

Table 6.2.2 2002-2017 Population Projection in Acholi Sub-region by UBOS

District	2002	2009	Growth Rate (2009/02)	2017	Growth Rate (2017/09)
Gulu (former)	298527	357400	2.0%	451800	3.0%
Kitgum (former)	282375	365000	2.9%	505200	4.1%
Pader (former)	326338	449900	3.6%	672300	5.1%
Amuru (former)	176733	210500	2.0%	264200	2.9%
Acholi sub-region	1083973	1382800	2.7%	1893500	4.0%

Source: UBOS (2007) Projections of Demographic Trends in Uganda 2007-2017

(2) UN

The UN Population Division produces long-term population projections of each individual country in the world. As for Uganda, the current population is estimated at 33.8 million in 2010 and is projected to increase to 60.8 million over the next two decades. The population growth rate in the recent years is relatively high and is estimated to be 3.3% p.a. between 2010 and 2015; gradually decreasing to 2.6% p.a. between 2025 and 2030.

Table 6.2.3 1990-2030 Population Projection by UN

Year	Population ('000)	Annual growth
1990	17731	3.40%
1995	20954	3.12%
2000	24433	3.27%
2005	28699	3.32%
2010	33796	3.28%
2015	39710	3.13%
2020	46319	2.89%
2025	53406	2.63%
2030	60819	-

Source: UN (2008) World Population Prospects: The 2008 Revision Population Database

(3) UNHCR

UNHCR itself does not provide population projections; however, it regularly updates the village-wise population in northern Uganda for monitoring the return process of the IDPs. From UNHCR monitored figures, the total population in Acholi sub-region is estimated at 1,227,000 in 2009. Former Kitgum District accounts for the largest share of the total population in Acholi sub-region and is estimated to have a population of 512,000 in 2009. Former Amuru District is estimated to have 275,000 in 2009. Comparing the population projections of UNHCR and UBOS, it is observed that the total population figures in Acholi sub-region are similar in both cases yet, district-wise population figures in both projections are very distorted.

Table 6.2.4 Populations by District in Acholi Sub-region

District	Population (as of August 2009)				Return Ratio (1)/(2)
	in IDP Camps	in Transit Sites	in Home Villages (1)	Total (2)	
Former Amuru District	73,494	38,350	163,595	275,439	59%
Former Gulu District	22,699	23,063	191,000	236,762	81%
Former Kitgum District	48,534	82,993	195,559	512,201	38%
Former Pader District	39,472	72,836	275,372	387,680	71%
Acholi Sub-region	184,199	217,242	825,526	1,226,967	67%

Source: UNHCR

6.3 Population Projection in Amuru and Nwoya Districts

6.3.1 Preconditions

The following bullet points are set as preconditions for the population projections in Amuru and Nwoya Districts.

- The baseline population applied to this study is the sub-county-wise population, prepared by UNHCR in 2009. UNHCR does not monitor the population when there aren't any IDP camps in the sub-county. Thus, the 2009 population projected by UBOS is slotted in where the population of the sub-county has no record in UNHCR monitoring data.
- The intermediate population growth rate between 2009 and 2018 is estimated, applying the same growth rate projected by UBOS. The long-term population growth rate between 2018 and 2030 is prepared, referring to the growth rate projected by the UN.
- Finally, the IDP return process is assumed based on the interview survey conducted by the JICA Community Development Study for Amuru District: A total of 84% of the IDPs in the camps and 79% of the IDPs in transit sites will return to their home village by 2014 and the rest will remain in the camps and transit sites.

6.3.2 Summary of Population Projection

The following table tabulates the population projections in Amuru and Nwoya Districts. In Amuru District, the largest population is projected in Lamogi Sub-county throughout the projection years (76,000 in 2018 and 101,000 in 2030), followed by Amuru, Pabbo and Atiak Sub-counties. In Nwoya District, the population size is projected to be relatively smaller than that in Amuru District. The largest population in Nwoya District can be seen in Alero Sub-county (34,000 in 2018 and 45,000 in 2030). The total population size in both Amuru and Nwoya Districts is estimated to increase to 352,000 in 2018 and 468,000 in 2030.

Table 6.3.1 Summary of Population Projection in Amuru and Nwoya Districts

District/Year	Sub-county	Pop. in Villages	Pop. in Transit Sites	Pop. in Camps	Total Pop. in Sub county	Growth Rate
Amuru/2009	Atiak	21,492	1,836	10,965	34,293	
	Pabbo	17,988	7,360	16,463	41,811	
	Lamogi	42,558	2,180	14,382	59,120	
	Amuru	34,291	5,329	12,455	52,075	
Nwoya/2009	Alero	19,820	6,332	510	26,662	
	Anaka	12,482	1,343	8,670	22,495	
	Koch Goma	18,349	1,818	2,384	22,551	
	Purongo	7,142	1,197	5,757	14,096	
Total		174,122	27,395	71,586	273,103	
Amuru/2018	Atiak	41,300	500	2,300	44,100	2.8%
	Pabbo	48,400	2,000	3,400	53,800	2.8%
	Lamogi	72,300	600	3,000	75,900	2.8%
	Amuru	62,700	1,400	2,600	66,700	2.8%
Nwoya/2018	Alero	32,300	1,700	100	34,100	2.8%
	Anaka	27,000	400	1,800	29,200	3.0%
	Koch Goma	28,200	500	500	29,200	2.9%
	Purongo	17,100	300	1,200	18,600	3.1%
Total		329,300	7,400	14,900	351,600	
Amuru/2030	Atiak	54,800	700	3,100	58,600	2.4%
	Pabbo	64,300	2,700	4,500	71,500	2.4%
	Lamogi	95,800	800	4,000	100,600	2.4%
	Amuru	82,900	1,900	3,400	88,200	2.3%
Nwoya/2030	Alero	42,600	2,200	100	44,900	2.3%
	Anaka	36,400	500	2,400	39,300	2.5%
	Koch Goma	37,800	700	700	39,200	2.5%
	Purongo	23,400	400	1,600	25,400	2.7%
Total		438,000	9,900	19,800	467,700	

Source: JICA Study Team

7. REGIONAL DEVELOPMENT AND RURAL ROAD DEVELOPMENT IN AMURU AND NWYOA DISTRICTS

7.1 Goals and Objectives of Regional Development in Amuru and Nwoya Districts

Considering development potential and issues of Amuru and Nwoya Districts, the future direction of regional development of Amuru and Nwoya Districts should be examined. It is necessary to set goals and objectives for overall development so that limited resources could be utilised efficiently and effectively for the development. In fact, former Amuru District has already laid out its own goals and objectives for its future clearly in its own District Development Plan (DDP). Therefore, all development activities should be aimed at achieving these goals and objectives. In this section, the goals and objectives are described.

7.1.1 District Development Plan (DDP)

Each district in Uganda formulates its own district three-year rolled development plan every year based on the Local Government Act. The district development activities are implemented according to the plan. The development plan is formulated in a bottom-up manner, starting planning at LCI (the village level). Implementation period of the annual plan is from July to June. The annual planning process starts in August.

Former Amuru District has established its own DDP as well. The latest development plan is “The Approved Three-year Rolled Development Plan 2009/10-2011/12”. The contents of the plan include a “situation analysis”, “objective and strategy of the plan”, “performance review”, and “development plan implementation”. Most of the development plan is discussed by sector: namely, administration, finance, statutory bodies, production and marketing, health, education and sports, works, natural resources, community based services, planning, and internal audit.

7.1.2 Vision, Mission, Goal and Objective

Former Amuru’s DDP identifies its development vision, goal, mission and objective as follows:

Table 7.1.1 Vision, Mission, Goal and Objective of Former Amuru District

Vision	A peaceful, prosperous and self-sustaining district by 2030
Mission	To enhance the capacity of the people to progressively and responsibly enjoy their social, economic, cultural and political rights
Overall Goal	Prosperity for All
Objective	Enhanced capacity (knowledge, skills, attitude, tools and infrastructure) for people to create wealth

Source: The Approved Three-year Rolled Development Plan 2009/10-2011/12 of Amuru District (Amuru District Development Plan 2009/10-2011/12)

7.1.3 Strategy and Priority

(1) Strategy

In order to achieve the objective and the vision eventually, the district sets a strategy as shown below:

- Focusing service delivery on community people that have returned home for enhanced rehabilitation, recovery and development

In addition, in order to firm up the strategy, each sector sets strategic objectives for its own sector. The following table shows strategic objectives for each sector.

Table 7.1.2 Strategic Objectives

Sector	Strategic Objectives
Administration	<ul style="list-style-type: none">• A collaborative/ coordinated and supervised service delivery• A self-motivated and productive human resource
Finance	<ul style="list-style-type: none">• A sound financial management system• A firm and broad resource base for implementing district programmes
Statutory Bodies	<ul style="list-style-type: none">• Quality and equitable service delivery that meets prescribed standards• District and sub-counties have democratic and accountable local governments
Production and Marketing	<ul style="list-style-type: none">• Sustainable livelihood practices for income and food security
Health	<ul style="list-style-type: none">• A healthy population that is an asset to the district• A latrine for every household
Education and Sports	<ul style="list-style-type: none">• Basic education is accessible to all children of school going age• Vocational education and skills for job creation other than job seeking
Works	<ul style="list-style-type: none">• A district that is accessible by two-wheel vehicles throughout the year• Clean safe water is available to the population within a distance of 1.5 km• Hygienic sanitation practices are part and parcel of every household member
Natural Resources	<ul style="list-style-type: none">• Sustainable utilization, management and development of natural resources• Orderly growth and development of urban centres
Community Based Services	<ul style="list-style-type: none">• Non-formal education is easily accessible to those who missed out on formal education• A peaceful co-existence among community members regardless of origin• Gender parity reigns in the society• War affected persons are healthy and active participants in the development process
Planning	<ul style="list-style-type: none">• Community members are aware of population related issues• Participatory planning is the order of the day in the community
Internal Audit	<ul style="list-style-type: none">• A strong internal control system for value for money

Source: The Approved Three-year Rolled Development Plan 2009/10-2011/12 of Amuru District (Amuru District Development Plan 2009/10-2011/12)

(2) Priority Projects

Along with the strategic objectives above, priority projects for FY2009/2010 are listed in the development plan, which are shown in the following table:

Table 7.1.3 Priority Projects for FY2009/2010

Sector	Sub-sector	Priority Project
Administration	-	<ul style="list-style-type: none"> • Construction of the district headquarters office block
Production and Marketing	Agricultural Production	<ul style="list-style-type: none"> • Establish automatic weather stations
	Veterinary	<ul style="list-style-type: none"> • Construction of a slaughter house
Health	-	<ul style="list-style-type: none"> • Completion of a surgical theatre
Education and Sports	Education	<ul style="list-style-type: none"> • Construction of classrooms
	Sports	<ul style="list-style-type: none"> • Construction of a sports ground
Works	Water and Sanitation	<ul style="list-style-type: none"> • Drilling and installation of boreholes • Construction of shallow wells • Rehabilitation of boreholes • Construction of drainable latrine stances • Construction of drainable latrine stances in public places
	Roads	<ul style="list-style-type: none"> • Construction and widening of road at bottlenecks on Lii and Adibuk streams • Upgrading Otwee-Mutema-Okungedi community access road to class III district road including construction and widening of road at bottleneck over Twolo stream • Rehabilitation of Alero-Goma road • Rehabilitation of Otwee-Lulyango-Anaka road including construction of a multiple span bridge over river Aswa at Lulyango • Rehabilitation of multiple span bridge over river Aswa on Otwee-Aswa-Wii Anaka road

Source: The Approved Three-year Rolled Development Plan 2009/10-2011/12 of Former Amuru District (Amuru District Development Plan 2009/10-2011/12)

In 2009/10-2011/12, former Amuru District proposed the priority projects listed in Table 7.1.3. These proposed priority projects cost 13.3 Billion Ushs. (equivalent to 6.7 Million USD). The priority road projects in the table cost 1.2 Billion Ushs. (equivalent to 0.6 Million USD).

Table 7.1.4 Details of Priority Projects for FY 2009/2010 in DDP

Sector	Project	Location	Capital Cost (Ushs.)	Recurrent Cost (Ushs.)	Source (s) of Fund
Administration	Construction of the district headquarters office block	Amuru District Headquarters	4,000,000,000	400,000,000	Office of the President
Agricultural Production Office	Establish automatic weather stations	8 sub-counties	40,000,000	4,000,000	Equalisation Grant
Veterinary	Construction of a slaughter house	Amuru Town Council	95,000,000	9,500,000	LGMSD (LDG)
Education	Construction of classrooms	8 sub-counties	690,000,000	69,000,000	UNICEF
Sports	Construction of a sports ground	Amuru Town Council	20,000,000	2,000,000	Equalisation Grant
Water	Construction of 2 motorised boreholes	Anaka sub-county, Otwee	600,000,000	60,000,000	DWD
Water	Drilling and installation of boreholes	Lamogi (2), Attiak (3), Alero (2), Anaka (1), Amuru (2), Pabbo (2), Purongo (3)	375,000,000	37,500,000	DWSCG (PAF)
Water	Drilling and installation of boreholes	Lamogi (2), Attiak (3), Alero (2), Anaka (1), Amuru (2), Pabbo (2), Purongo (3)	216,000,000	21,600,000	ICRC
Water	Drilling and installation of 2 boreholes	Alero (1), Koch-Goma (1)	38,500,000	3,850,000	LGMSD (LDG)
Water	Construction of shallow wells (hand dug wells)	Pabbo, Alero, Amuru, Lamogi, Purongo	40,000,000	4,000,000	DWSCG (PAF)
Water	Drilling and installation of deep boreholes	Anaka, Alero, Purongo, Pabbo, Koch-Goma, Amuru, Lamogi, Attiak	289,000,000	28,900,000	UNICEF
Water	Construction of shallow wells	Anaka, Alero, Purongo, Pabbo, Koch-Goma, Amuru, Lamogi	40,000,000	4,000,000	UNICEF
Water	Rehabilitation of boreholes	Anaka, Alero, Purongo, Pabbo, Koch-Goma, Amuru, Lamogi	35,000,000	3,500,000	DWSCG (PAF)
Water	Rehabilitation of boreholes	Anaka, Alero, Purongo, Pabbo, Koch-Goma, Amuru, Lamogi	134,000,000	13,400,000	UNICEF
Water	Drilling and installation of 2 boreholes	Lamogi, Koch-Goma	39,400,000	3,940,000	PRDP
Sanitation	Construction of 110 drainable latrine stances	8 sub-counties	296,916,315	29,691,631	SFG
Sanitation	Construction of drainable latrine stances in public places	Anaka, Purongo, Pabbo, Koch-Goma	48,000,000	4,800,000	DWSCG (PAF)
Health	Completion of a surgical theatre	Attiak sub-county (Attiak HC IV)	20,000,000	2,000,000	PHC DEV
Roads	Construction of road at bottlenecks on Lii and Adibuk streams	Koch-Goma	76,500,000	7,650,000	LGMSD (LDG)
Roads	Upgrading Otwee-Mutema-Okungedi community access road to class III district road including construction of road at bottleneck over Twolo stream	Amuru	345,059,000	34,505,900	PRDP

Sector	Project	Location	Capital Cost (Ushs.)	Recurrent Cost (Ushs.)	Source (s) of Fund
Roads	Rehabilitation of Alero-Goma road	Alero, Koch-Goma	360,000,000	36,000,000	PAF III
Roads	Rehabilitation of Otwee-Lulyango-Anaka road including construction of a multiple span bridge over river Aswa at Lulyango	Amuru, Alero, Anaka	1,600,000,000	160,000,000	JICA
Roads	Rehabilitation of multiple span bridge over river Aswa on Otwee-Aswa-Wii Anaka road	Amuru, Alero, Anaka	300,000,000	30,000,000	JICA

Source: The Approved Three-year Rolled Development Plan 2009/10 – 2011/12, Former Amuru District Local Government

7.2 Role of Rural Road Development in former Amuru District

Road development contributes a lot to achievement of the district goals and objectives. Roads themselves are basic infrastructure for peoples' lives. Roads improve peoples' access to various places such as schools, health units, markets and trading centres. Additionally, roads could support other development activities: for example, road development and improvement makes it much easier to build new schools, health units and boreholes, which require vehicle accessible roads for heavy equipment and materials for construction. The DDP of former Amuru District considers the importance of road development and lists a set of objectives for the target three years as shown below.

7.2.1 Objectives of Road Development in Former Amuru DDP

(1) Mission

The Works Department of former Amuru District Office is in charge of road development inside the district, excluding national roads. The civil section of the department in particular is responsible for roads. According to former Amuru DDP, missions of the section are as follows:

- To increase accessibility by road as well as provision of an efficient and sustainable road network that is sufficient to meet present and future traffic demand to all socio-economic centres in the district
- To provide technical support to the lower local governments and the community for effective planning, operation and maintenance of road infrastructure for sustainable development.

(2) Objectives

As previously mentioned, one of the strategic objectives, which is related to road development is as follows:

- A district that is accessible by two-wheel vehicles throughout the year

In order to fulfil the missions and strategic objective, the civil section of DDP sets the following objectives for the road sector:

- To create a sustainable and efficient road network and maintain all levels of roads in support of socio-economic development

-
- To provide a safe and efficient road network that is sufficient to meet present and future traffic demands
 - To enhance the development of the local contractor industry capacity that can meet the required construction standards, health and occupational health requirements while generating gainful employment for the people
 - To reduce transportation costs and improve accessibility to economically productive and/or socially important areas by ensuring a sustainable road network system
 - To ensure all district roads are properly maintained and are in motorable conditions throughout the year
 - To increase total district road networks
 - To promote effective use and functionality of road infrastructure
 - To strengthen the sector capacity in order to promote effective management, supervision and monitoring of building and road programmes
 - To check and verify that all structures are constructed as per the recommended designs and specifications
 - To develop from the bush, a well-planned town that meets the current urban planning standards
 - To maintain all district roads in passable condition throughout the year

7.2.2 Rural Road Development in Amuru and Nwoya Districts

The development goal and short-term objectives of road development for Amuru and Nwoya Districts pose the question as to where the road development in the long-term should be headed to contribute to development in the districts. Therefore, in this master plan, the Study Team sets the following two goals for the Rural Road Master Plan in Amuru and Nwoya Districts.

- Improvement of Socioeconomic Environment
- Promotion of Regional Development, especially Agricultural Development

(1) Improvement of Socioeconomic Environment

Many people in Amuru and Nwoya Districts are still in transit towards settling in their home villages. They hesitate to go back and settle in their home villages because of uncertainty as regards whether they can maintain the standards of living they have become accustomed to in the IDP camps and transition villages. It is necessary to improve the socioeconomic environment of home villages, in which returnees can maintain their living standards and reconstruct agricultural production bases.

In order to improve the socioeconomic environment in home villages, improvement of social and economic infrastructures is the highest priority of the districts. Roads themselves are basic social and economic infrastructures. Roads can connect people in home villages with various places, such as health centres, trading centres and schools. Particularly, it is critical for people to have access to major trading centres to which people can go to sell agricultural produce or to which middlemen can come to buy agricultural produce: selling agricultural produce is the major and only source of income for most people in Amuru and Nwoya.

In addition, roads are able to promote improvement of other social infrastructures and services such as water points, health units and schools. It is necessary to bring heavy construction equipment and materials by motor vehicles to the exact sites of construction, rehabilitation,

and upgrading of water points, health units or schools. These pieces of heavy construction equipment and materials require roads which are wide enough and bridges which can bear certain weights. Therefore, if there are no such roads, it is very difficult to have social service facilities.

Additionally, it is very important that these social infrastructures are easily accessible from administration centres to ensure quality of services. Since most of these facilities still do not have sufficient staff accommodation, many staff including teachers have to commute from nearby trading and/or administration centres. If roads between their living places and work places, such as health units and schools, are in poor condition, they are unable and hesitant to go to work on time daily under any weather conditions. Furthermore teaching and learning materials and medical equipment and drugs should be delivered to these facilities; hence they require decent roads connecting to them as well. Furthermore, these facilities including water points should be visited regularly by district and sub-county officers for monitoring and supervision. However, if road conditions to these facilities are bad, government officers cannot reach them easily.

In conclusion, the following two points should be focused upon in order to improve people's socioeconomic environment:

- Road Development to Improve Access from Home Villages to Trading Centres
- Road Development to Improve Social Infrastructure and Services

When considering actual road development to improve the socioeconomic environment, it is necessary to consider access to the economic and social facilities from two perspectives: that is, both from service providers' (government officers and middlemen) perspectives and from service users' (people in home villages) perspectives. In other words, it is important to consider access to these facilities not only from major centres (trading and/or administration centres) but also from sub-villages where people live after they return.

(2) Promotion of Regional Development

The major industry in Amuru District is agriculture. About 90% of the population is engaged in agriculture. Still most of the land, which is very fertile, is not well utilised as a consequence of the long-running conflict. Currently, people are more focused on returning and resettlement. However, once they resettle in their home villages, probably a few years later, they will be willing to expand their agricultural production. Therefore, in order that road development contributes to regional development in Amuru and Nwoya Districts, it is necessary to consider road development which contributes to agricultural development as expressed below:

- Road Development to maximise Potential for Agriculture

There could be two approaches to be taken to improve accessibility within Amuru and Nwoya Districts for agricultural development. First, it is important to link major trading centres where people sell and buy agricultural produce with major national roads. After people harvest agricultural produce, they sell it to middlemen in their own villages and/or bring them to sell to middlemen through small wholesale stores near major trading centres. Then the middlemen bring the products to larger trading centres such as Gulu town and Pakwach Town to sell them at wholesale stores. If connectivity and access between major trading centres inside Amuru and Nwoya Districts and larger trading centres are good, agricultural produce can be sold much more easily and at much higher prices. Looking at Amuru and Nwoya Districts, these larger trading centres are located along major national roads. Therefore, if connectivity between major trading centres and the national roads improves, sales and income generated from agricultural produce will also improve significantly. If people can sell more products at

much higher prices, they'd definitely be encouraged to increase the quantity of agricultural produce. For this reason, it is necessary to focus on linkages between major trading centres and major national roads.

Secondly, it is important to secure access to future agricultural potential areas in the districts. As it is mentioned, there are still vast lands in the districts which are very fertile, but are not fully utilised yet. These areas are not well utilised partly because the access to them is not good. Although people are now concentrating on their resettlement, it is certain that they'll attempt to go to and use these abandoned lands for more agricultural production after they resettle. If the access to and from these areas to major national and district roads improves, people's movements towards these areas will be accelerated further, which contributes to a large expansion of agriculture in the districts. Therefore, it is essential to provide better access to non-utilised agricultural potential areas, considering future regional development in the districts.

In order to develop roads for maximum utility of agricultural potential, road development should involve linkage of major trading centres and national roads as well as securing access to agricultural potential areas.

PART 1: RURAL ROAD MASTER PLANNING IN AMURU AND NWOYA DISTRICTS

**SECTION 3: RURAL ROAD IMPROVEMENT AND MAINTENANCE PLANNING FOR
AMURU AND NWOYA DISTRICTS**

8. PRESENT SYSTEM OF ROAD ADMINISTRATION AND ROAD MAINTENANCE

8.1 Present System of Road Administration

8.1.1 Roads in Uganda

(1) Road Classification

At present, in Uganda, roads are administratively classified as follows:

- National roads
- District roads
- Urban roads
- Community access roads

National roads are administered by MoWT and UNRA. District roads are under the jurisdiction of district local governments but under technical guidance of MoWT. Urban roads are also under the jurisdiction of local governments of urban councils but under the technical guidance of MoWT. Community access roads are supposed to be managed by sub-county local governments, but the development and maintenance are largely influenced by district local governments.

In Uganda, roads are also classified into trunk roads and feeder roads. The classification of roads into trunk roads and feeder roads is a functional classification. It is considered that trunk roads are now national roads, and feeder roads are district roads. However, the current classification of roads into national roads and district roads is an administrative classification.

On the other hand, in Uganda, a system of functional classification was established for all national roads, while another system of functional classification was established for district roads. The national roads are functionally classified as: 1) international trunk roads, 2) national trunk roads, 3) primary roads, 4) secondary roads, 5) minor roads. The district roads are functionally classified into i) District Class I Roads, ii) District Class II Roads, and iii) District Class III Roads. These systems of functional road classification are described and discussed in Section 14.3.

(2) National Roads and District Roads

The network of national roads has been gradually expanded in terms of length, from 9,300 km in 1996, and 10,500 km in 2001 to 20,000 in 2010. See Table 8.1.1. This expansion was made by reclassification of district roads and community access roads into national roads.

As recently as December 2008, about 9,000 km of district roads were reclassified into national roads. As a result, the total length of the national roads reached 20,000km. See Table 8.1.3 for the length of newly reclassified national roads by UNRA. The road ratios (both road length per area and road length per population) vary among the regions. The road ratios of national roads in the Northern Region are low. After the reclassification of district roads to national roads in December 2008, the low road ratios of national roads in the Northern region did not change much.

On the other hand, the road ratios of district roads in Northern Region are not very low compared to other regions.

Table 8.1.1 Road Lengths in Uganda

Unit: km

	1992 (1)	1996 (2)	1996 (3)	End of 2001 (4)	Jun. 2004 (5)	Early 2008 (6)	Dec. 2008 (7)
National Road		8,000	9,300	10,500		10,800	20,000
District Road	16,970	17,300	n.a.	27,000	27,139	27,500	n.a.
Urban Road		700	n.a.	3,500		4,800	n.a.
Community Access Roads		-	n.a.	30,000		35,000	n.a.
Total		26,000		71,000		78,100	

Source:(1) Strategy for Rural Feeder Roads, Rehabilitation and Maintenance, Ministry of Local Government (1992)

Source:(2) JICA Mission Report (1996)

Source:(3) National Transport Master Plan including a Transport Master Plan for the Greater Kampala Metropolitan Area (May 2009)

Source:(4) Table 1.1, Strategy for Sustainable Maintenance of District, Urban and Community Access Roads (2004)

Source:(5) Annex I, Strategy for Sustainable Maintenance of District, Urban and Community Access Roads (2004)

Source:(6) National Transport Master Plan including a Transport Master Plan for the Greater Kampala Metropolitan Area (May 2009)

Source:(7) Calculation based on the List of District Roads taken over by UNRA (Prepared by MoWT on December 2008)

Table 8.1.2 Road Ratio by Region in Uganda

	Area (km ²)	Population (1,000)	Length of Roads (km)			Road Length (km)/Area (km ²)			Road Length (km)/Population (1,000)		
			Length of National Roads (km), as of June 2008	Length of National Roads (km), as of June 2010	Length of District Roads (km ²), as of June 2004	National Roads, as of June 2008	National Roads, as of 2010	District Roads, as of June 2004	National Roads, as of June 2008	National Roads, as of 2010	District Roads, as of June 2004
Central Region	61,403	7,751	2,596	4,346	7,028	0.042	0.071	0.114	0.335	0.561	0.907
Eastern Region	39,479	7,693	2,838	5,101	6,114	0.072	0.129	0.155	0.369	0.663	0.795
Northern Region	85,392	6,652	2,486	4,477	5,481	0.029	0.052	0.064	0.374	0.673	0.824
Western Region	55,277	7,497	3,045	5,928	8,516	0.055	0.107	0.154	0.406	0.791	1.136
Uganda Total	241,551	29,593	10,965	19,851	27,139	0.045	0.082	0.112	0.371	0.671	0.917

Source: Areas and Populations: Uganda Bureau of Statistics (Website, 2010)

Road Length: MoWT

Table 8.1.3 Length of National Roads by UNRA's Administrative Area

Region and UNRA Area	Paved (km) *	Unpaved (km) *	Total as of June 2008 (km) * [A]	District Roads Reclassified as National Roads (km) ** [B]	Total as of December 2008 (km) [C]=[A]+[B]	Increase Rate [D]=[C]/[A]
Central Region	1,138	1,458	2,596	1,750	4,346	1.7
Kampala	466	247	713	350	1,063	1.5
Luwero	159	335	494	410	904	1.8
Masaka	239	294	533	528	1,061	2.0
Mpigi	151	349	500	111	611	1.2
Mubende	123	233	356	351	707	2.0
Eastern Region	615	2,223	2,838	2,263	5,101	1.8
Jinja	212	434	646	424	1,070	1.7
Kotido	n.a.	440	440	420	860	2.0
Mbale	218	347	565	431	996	1.8
Moroto	1	346	347	269	616	1.8
Soroti	68	396	464	475	939	2.0
Tororo	116	260	376	244	620	1.6
Northern Region	409	2,077	2,486	1,991	4,477	1.8
Arua	130	416	546	266.7	813	1.5
Gulu	192	402	594	275	869	1.5
Kitgum	n.a.	596	596	526	1,122	1.9
Lira	87	502	589	517	1,106	1.9
Moyo	0	161	161	406	567	3.5
Southern Region	588	1,025	1,613	1,646	3,259	2.0
Kabale	156	254	410	996	1,406	3.4
Kasese	138	203	341	124	465	1.4
Mbarara	294	568	862	526	1,388	1.6
Western Region	348	1,084	1,432	1,237	2,669	1.9
Fort Portal	162	390	552	564	1,116	2.0
Hoima	96	309	405	493	898	2.2
Masindi	90	385	475	180	655	1.4
Special Access Roads				138	138	
National Total	3,098	7,867	10,965	9,024	19,851	1.8

Source: *: UNRA, June 2008

**: MoWT, December 2008

(3) Condition of National Roads

In 2003, the length of paved national roads was 2,650 km. By mid-2008, the length of paved national roads was extended to 3,051 km.

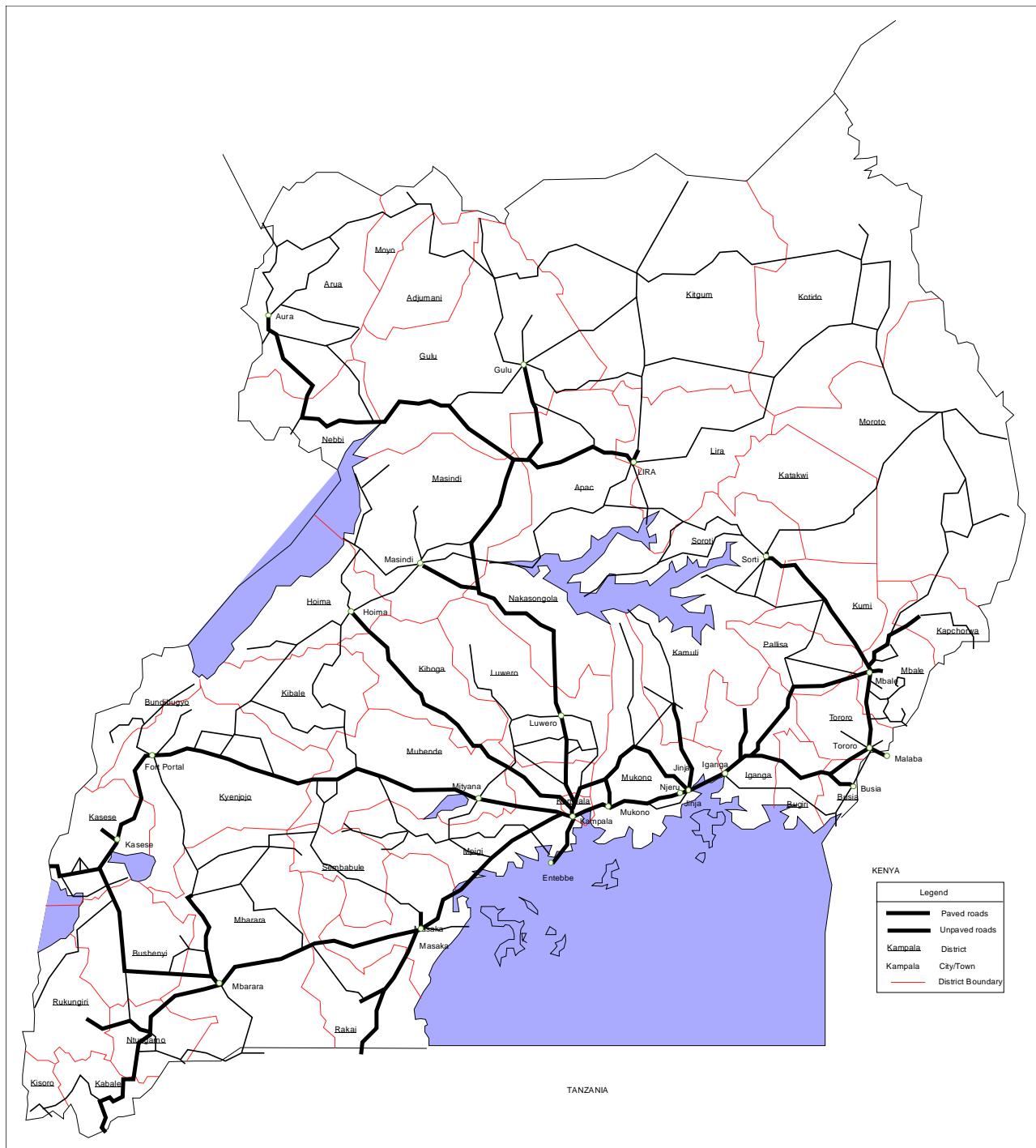
In 2003, 92% of paved national roads were in good or fair condition. Approximately 81% of unpaved roads were in good or fair condition. Since 2003, the overall conditions have deteriorated. It is estimated that only 60% of national roads are in good or fair condition.¹

¹ The Five-year National Development Plan (NDP 2010-2015) set a strategic objective to improve the current level (60%) of good or fair condition of national roads to the level of 85%.

Table 8.1.4 Length of District Roads by District and by Region

Unit: km

No.	Code	District Name	Region	Length of District Roads by District
1	4	Adjumani	Northern	480
2	2	Apac	Northern	632
3	3	Arua	Northern	819
4	9	Gulu	Northern	416
5	53	Pader	Northern	289
6	22	Kitgum	Northern	352
7	23	Kotido	Northern	389
8	26	Lira	Northern	608
9	32	Moroto	Northern	354
10	33	Moyo	Northern	235
11	38	Nebbi	Northern	585
12	56	Yumbe	Northern	322
Northern Region Sub-total				5,481
13	7	Bugiri	Eastern	434
14	7	Busia	Eastern	404
15	11	Iganga	Eastern	541
16	12	Jinja	Eastern	308
17	16	Kamuli	Eastern	687
18	17	Kapchorwa	Eastern	279
19	25	Katakwi	Eastern	461
20	24	Kumi	Eastern	426
21	30	Mbale	Eastern	246
22	40	Pallisa	Eastern	450
23	44	Soroti	Eastern	341
24	45	Tororo	Eastern	337
25	54	Sironko	Eastern	138
26	51	Mayuge	Eastern	336
27	46	Kaberanaindo	Eastern	152
28	52	Nakapiripirit	Eastern	415
29	15	Kalangala	Eastern	159
Eastern Region Sub-total				6,114
30	1	Kampala	Central	500
31	20	Kiboga	Central	349
32	27	Luwero	Central	619
33	28	Masaka	Central	685
34	34	Mpigi	Central	626
35	35	Mubende	Central	1,001
36	36	Mukono	Central	871
37	37	Nakasongola	Central	665
38	41	Rakai	Central	404
39	43	Sembabule	Central	362
40	55	Wakiso	Central	541
41	49	Kayunga	Central	405
Central Region Sub-total				7,028
42	5	Bundibugyo	Western	331
43	6	Bushenyi	(S) Western	1,159
44	10	Hoima	Western	677
45	13	Kabale	(S) Western	680
46	14	Kabarole	Western	329
47	18	Kasese	Western	498
48	19	Kibaale	Western	560
49	21	Kisoro	(S) Western	333
50	29	Masindi	Western	829
51	31	Mbarara	(S) Western	1,210
52	39	Ntungamo	(S) Western	502
53	42	Rukungiri	(S) Western	313
54	50	Kyenjojo	Western	341
55	47	Kamwenge	Western	390
56	48	Kanungu	(S) Western	364
Western Region				8,516
Total				27,139



Source: MoWT

Figure 8.1.1 National Road Network, as of 2007

8.1.2 Institutional Structure of Road Administration

(1) Jurisdiction of Roads

Development and maintenance of national roads is under the jurisdiction of the recently established UNRA. That of district roads is under the jurisdiction of district local governments. The development and maintenance of urban roads is under the jurisdiction of urban councils while community access roads are under that of sub-counties.

(2) Institutional Reform

The World Bank and other donor development partners have promoted institutional reforms of the road sub-sectors in Africa. Main points of the reform include 1) separation of policy and planning function from actual implementation of investment and maintenance, 2) more involvement of the private sector in road development and maintenance.

Up to the late 1990s, the ministry (MoWT or MoWHC) planned, administered and maintained national roads. From 1998, the planning responsibilities were increasingly shifted from the ministry to the Road Agency Formation Unit (RAFU), which eventually evolved into the Uganda National Roads Authority (UNRA) in July 2008. The UNRA now plans, administers and maintains national roads as a semi-autonomous agency under the MoWT.

(3) Ministry of Works and Transport (MoWT)

The Ministry of Works and Transport (MoWT) is the lead government agency in the national transport sector with the following responsibilities:

- Transport sector policy formulation within the framework of national and regional transport goals, objectives and strategies
- Provision of higher-level planning directives and guidelines to the transport sub-sectors
- Overall regulation of the transport sector
- Monitoring, evaluation and reporting of transport sector performance
- Transport sector database management

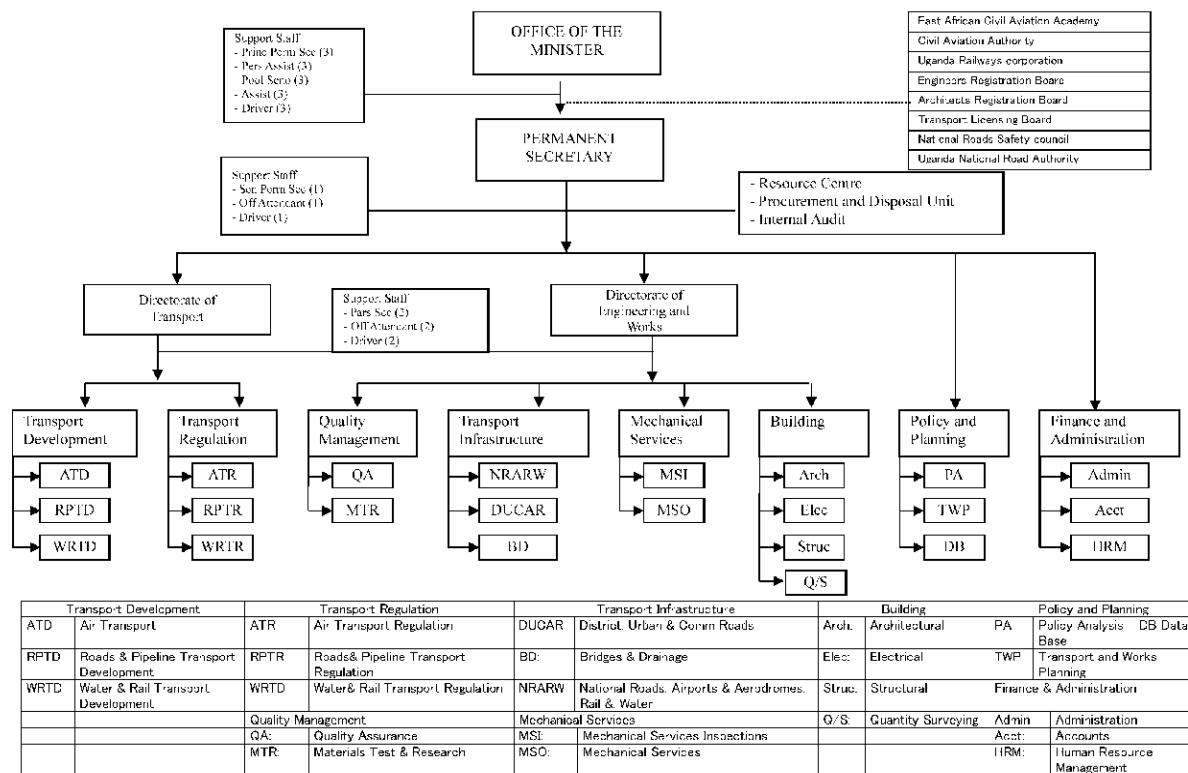
MoWT is composed of eight departments, under which 26 divisions are operational. See Figure 8.1.2. One of the divisions is the District and Community Access Roads Division, which is in charge of technical and financial guidance for district roads and community access roads. The division has 17 professional positions.

(4) Uganda National Roads Authority (UNRA)

UNRA operates under an organizational structure as approved by the Board in 2008. The Authority is headed by an Executive Director, who is appointed by the Minister of Works and Transport. In the UNRA organizational structure, there are five directorates, namely (i) Planning, (ii) Projects, (iii) Operations, (iv) Finance and Administration, and (v) Internal Audit. Within each directorate are various positions that include Project Managers, Project Engineers/ Officers, Technicians and Support Staff. UNRA has 22 stations, which are in charge of management of actual maintenance work of national roads.

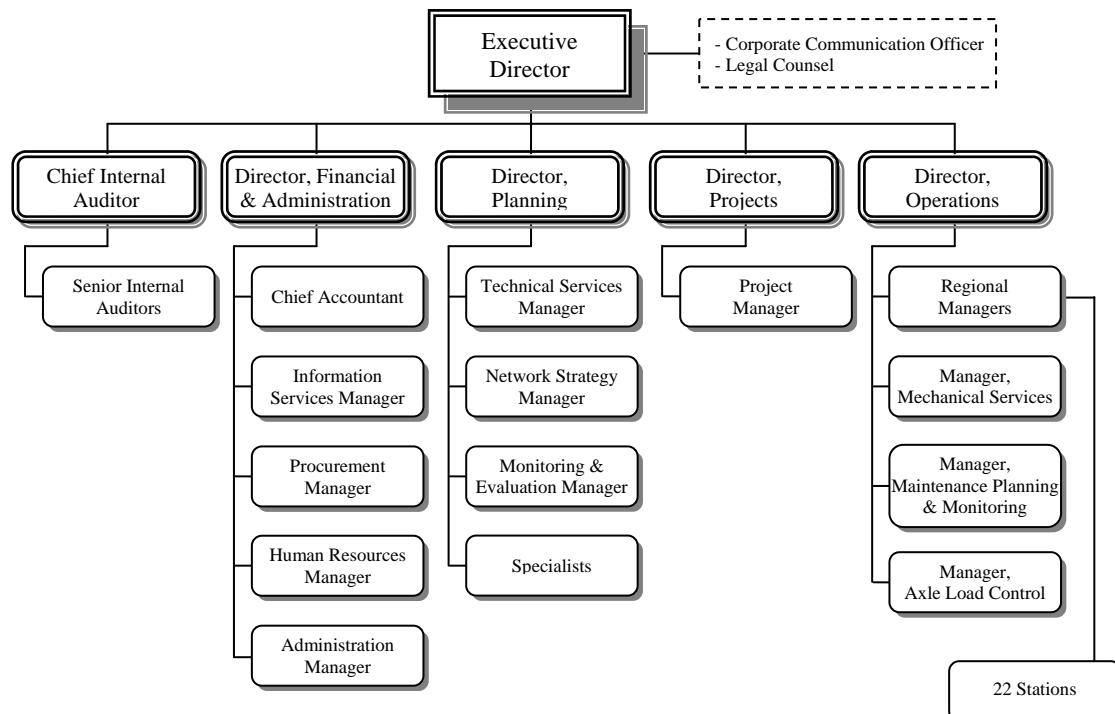
Gulu Station of UNRA is in charge of the districts of Gulu, Amuru and Nwoya. The Kitgum Station of UNRA covers Kitgum, Lamwo, Pader and Agago Districts.

The Macro Structure of UNRA is shown in Figure 8.1.3.



Source: MoWT

Figure 8.1.2 Present Structure of MoWT



Source: UNRA

Figure 8.1.3 Present Organization of UNRA

(5) Ministry of Local Government (MoLG)

The MoLG is responsible for coordinating the financing and delivery of road services pertaining to the local road networks, which were established under the jurisdiction of local governments under the Local Government Act, 1997.

(6) District Local Governments

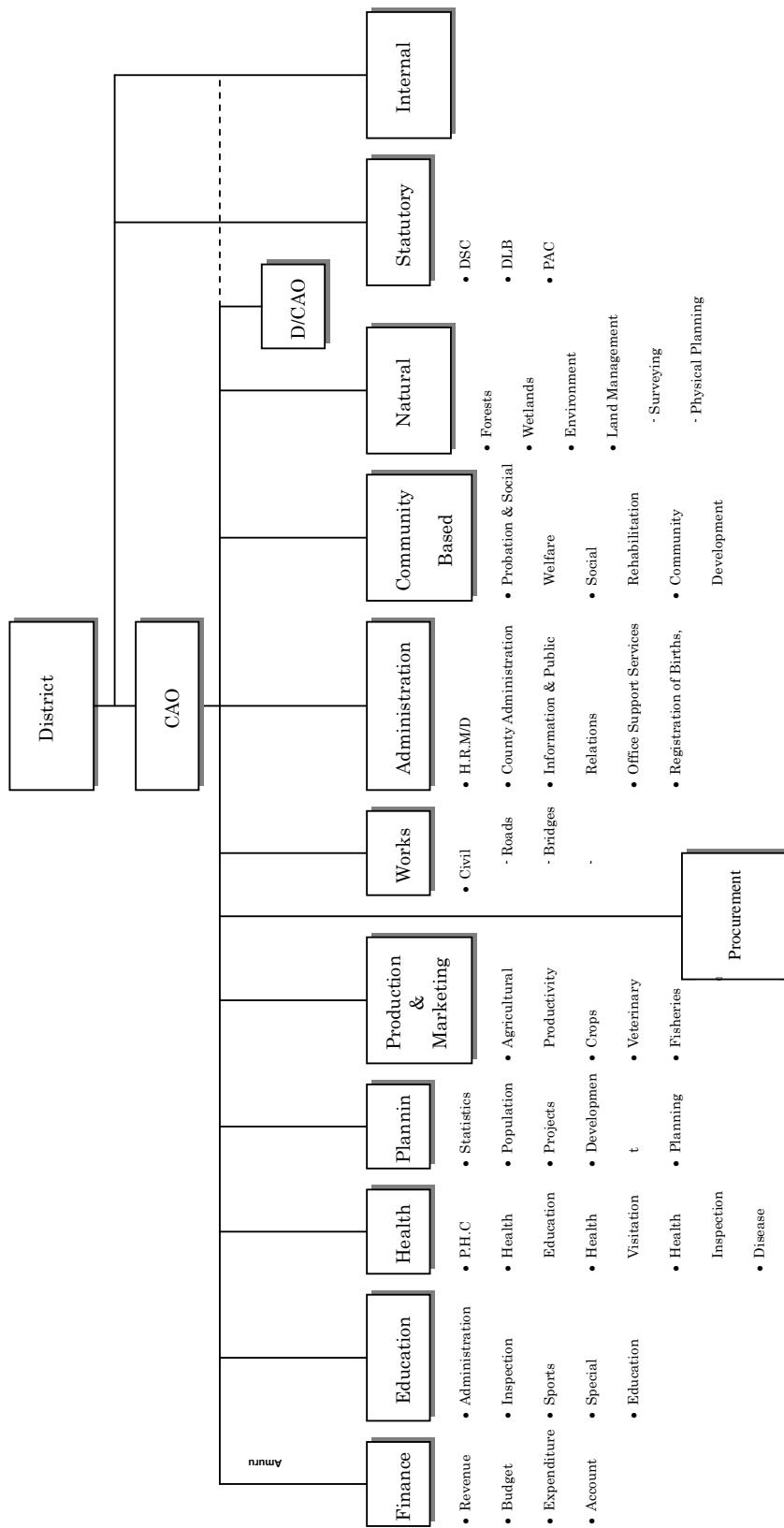
The District Local Governments (Councils), including Kampala City Council, are responsible for the construction, rehabilitation and maintenance of roads, which are not under the responsibility of the central government, i.e. district roads, urban roads and community access roads.

These local government authorities are further required by the Local Government Act 1997, to prepare comprehensive and integrated development plans incorporating plans for lower-level local governments for submission to the National Planning Authority.

The district local government has an organizational structure as shown in Figure 8.1.4. The district has nine departments, in addition to three units. One of the departments is the Works Department, which is in charge of road development and maintenance.

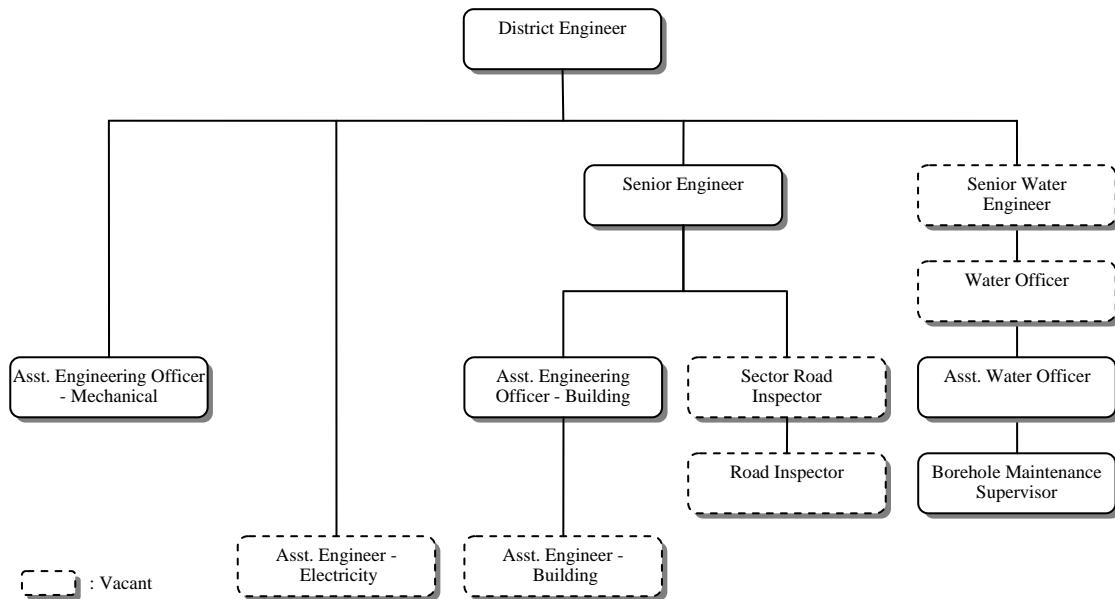
(7) District Works Department

The organization structure and personnel of former Amuru District works department were as shown in Figure 8.1.5. The district works department has seven positions of officers. The district works department is in charge not only of roads, but also of water supply and government buildings.



Source: Review and Restricting of Amuru Local Government, Ministry of Public Service,

Figure 8.1.4 Organization Structure and Personnel of former Amuru District



Source: Former Amuru District, as of 10th Oct, 2009

Figure 8.1.5 Organization Structure of Former Amuru District Works Department

8.2 Road Funding

8.2.1 General

The funding for the Transport Sector is done by (1) Ministry of Finance, Planning and Economic Development (MoFPED) and (2) Uganda Road Fund.

MoFPED is responsible for mobilizing and making available the funding as per the approved transport sector investment plan and provides oversight to the Road Fund Management Board in accordance with the provisions of the Act establishing the fund.

The Uganda Road Fund is a corporate body established by an Act of Parliament as part of the overall government strategy to commercialize the road sub-sector by transferring the burden of maintaining roads from the general taxpayer to road users. The objectives of the Fund are as follows:

- To finance the routine and periodic maintenance of public roads in Uganda
- To ensure that public roads are maintained at all times
- To advise the Minister on (1) the preparation and efficient and effective implementation of the Annual Road Maintenance Programme and (2) the control of overloading of vehicles on public roads.

8.2.2 Government Budgets for Road Improvement and Maintenance

(1) State Budgets of Uganda

In the last three fiscal years, the government of Uganda has maintained the level of state budget at over 3,000 Million USD. The shares of external donor sources were on a gradual decline. In the fiscal year 2010/2011, it was as low as 25%.

Table 8.2.1 State Budgets of Uganda

unit=Billion Ushs.

	2008/2009		2009/2010		2010/2011	
Domestic Sources	4,264	69.4%	4,800	65.5%	5640	74.7%
External Loan and Grants	1,879	30.6%	2,534	34.5%	1912	25.3%
Total	6,143	100.0%	7,334	100.0%	7552	100.0%

Source: Budget Speeches by Minister of Finance, Planning and Economic Development for Financial Years 2008/2009, 2009/2010 and 2010/2011

(2) Share of the Works and Transport Sector in State Budgets

In 2008/2009, the share of the Works and Transport Sector in the state budget was as high as over 18%. The shares were 14.2% and 13.5% in 2009/2010 and 2010/2011 respectively.

In May 2009, the Uganda Road Fund Board was established. In the state budget of 2009/2010, there was not yet any special budgetary allocation for the Uganda Road Fund. In FY 2010/2011, there was a special budgetary allocation for the Road Fund.

However, Table 8.2.2 shows that no substantial increase was made to the total budget for the Works and Transport Sector after the establishment of the Road Fund budgets.

Table 8.2.2 Shares of the Works and Transport Sector in State Budgets of Uganda

Unit: Billion Ushs.

	2008/2009	2009/2010	2010/2011
MOWT (1)	169	138	124
UNRA (2)	949	904	614
Uganda Road Fund (3)	0	0	284
Total of Works and Transport Sector Budget	1,118	1,042	1,022
% of Works and Transport Sector Budget out of Total State Budget	18.2%	14.2%	13.5%
Total of State Budget (4)	6,143	7,334	7,552
	100.0%	100.0%	100.0%

Source: (1), (2) and (3): Ministerial Budget Policy Statements

(4): Budget Speech by Minister of Finance, Planning and Economic Development

(3) Budget for Upgrading/Improvement of National Roads and District Roads

The investment level for national roads has drastically increased in the last three years or so. The investment level in the early part of the last decade was around 80 million USD per year. However, the current investment level for national roads is 150-200 million USD per year, in accordance with the budget policies of MoWT. See Table 8.2.3.

On the other hand, the investment level for district roads was around 5-10 million USD per year during the last decade. See Table 8.2.5. The current level of investment for district roads is still very limited at about 18-21 million USD per year, which is very low compared to that for national roads.

(4) Budget for Maintenance of National Roads and District Roads

Between 2000 and 2005, the budget for national road maintenance was around 30-35 million USD per year. After the establishment of the Uganda Road Fund (FY 2010/2011), around 79 million USD, which is two times the annual budget of previous years, was allocated for the national road maintenance.

Similarly after the commencement of the Road Fund (FY 2010/2011), the maintenance budget for district roads also increased significantly to as high as to 43 million USD.

However, the total budgets for road development and maintenance were kept at the same level compared to those before the establishment of the Road Fund.

(5) Investment Plan for Roads of the National Transport Master Plan

The National Transport Master Plan (2008-2023), established in May 2009, proposed a 15-year investment plan for the whole transport sector. The investment plan for the Road Sub-sector is shown in Table 8.2.6.

Table 8.2.3 Road Sector Investment and Recurrent Expenditure for Financial Years 2000/2001-2005/2006, 2009/2010 & 2010/2011

	Unit: Million USD							
	2000/2001 Actual	2001/2002 Actual	2002/2003 Actual	2003/2004 Budget	2004/2005 Projection	2005/2006 Projection	2009/2010 Budget	2010/2011 Budget
(A) GOU Funded								
National Road Maintenance	32.6	37.8	29.8	31.9	35.0	35.0	30.1	79.1
National Road Development	19.7	24.3	15.4	17.2	13.7	13.7	213.5	118.6
Institutional Capacity Building	1.2	1.0	1.7	2.1	4.1	4.1		
District and Urban Roads (Improvement)	7.5	6.8	16.6	16.5	15.5	15.2	9.7	11.3
District and Urban Roads (Maintenance)	10.3	11.0	0.5	2.3	3.3	3.1	1.1	43.6
Others	10.7	8.6	9.6	4.6	3.5	3.4		
Sub-total of GOU Funded Investment and Recurrent Expenditure	82.0	89.5	73.6	74.6	75.0	74.5		
(B) Donor Funded								
National Road Development	13.7	74.9	23.9	93.1	106.0	109.1	135.2	136.7
District Road Development							11.8	7.2
National Road Maintenance	4.7	8.7	4.7	20.0	9.7	12.7	15.5	3.2
District Road Maintenance							21.0	0.0
Others	2.2	0.0	0.0	4.4	8.0	8.0		
Sub-total of Donor Funded Investment and Recurrent Expenditure	20.6	83.5	28.6	117.4	123.7	129.8		
Total Financing (GOU and Donor)	102.6	173.0	102.1	192.0	198.7	204.3		
GOU % of Total	79.9%	51.7%	72.0%	38.8%	37.7%	36.5%		
Sub-total of National & District Road Development (GOU and Donor)	40.9	106.0	55.8	126.8	135.1	137.9	358.4	266.6
Sub-total of National & District Road Maintenance (GOU and Donor)	47.7	57.4	35.0	54.2	48.0	50.8	46.8	125.9
Total Financing of National & District Road Development & Maintenance (GOU and Donor)	88.5	163.4	90.8	181.0	183.1	188.7	405.1	392.6

Source: Data of 2000/2001-2005/2006: MoFPED of Uganda. Referred to Republic of Uganda Appraisal Report, Road Sector Support Project, prepared by African Development Fund, March 2005
Data of 2009/2010-2010/2011: Ministerial Budget Policy Statements, 2009 and 2010

Table 8.2.4 Planned and Actual Physical Performance of DUCAR under RSDP2 for 2003/04-2006/07

Unit: km

Category	2003/04		2004/05		2005/06		2006/07		Total	
	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual
District Roads Routine Maintenance	18,000	16,800	18,026	16,800	18,000	16,800	18,000	16,800	72,026	67,200
District Roads Periodic Maintenance	1,370	696	748	531	1,370	1,258	1,370	1,065	4,858	3,550
District Roads Development	829	422	2,051	1,321	1,095	1,107	1,590	1,202	5,565	4,052
Urban Roads Maintenance	250	145	90	145	250	145	250	105	840	540
Urban Roads Development	8.8	3.7	70	41	64	34	34	16	177	95
Community Access Roads	-	-	652	300	652	250	489	391	1,793	941

Source: Final Draft, The Ten-Year District, Urban and Community Access Roads Investment Plan (DUCARIP), MoWT, March 2008

Table 8.2.5 Budget and Actual Expenditure of DUCAR under RSDP2 for 2003/04-2006/07

Unit: Billion Ushs.

Category	2003/04		2004/05		2005/06		2006/07		Total	
	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual
District Roads Maintenance	17.957	17.339	18.310	17.295	19.869	16.702	18.380	17.096	74.516	68.43
District Roads Development	18.315	19.121	13.460	16.193	13.870	14.909	10.400	9.256	56.045	59.48
<i>Sub Total</i>	<i>36.272</i>	<i>36.460</i>	<i>31.770</i>	<i>33.488</i>	<i>33.739</i>	<i>31.611</i>	<i>28.780</i>	<i>26.352</i>	<i>130.561</i>	<i>127.91</i>
Urban Roads Maintenance	4.078	3.862	3.992	4.057	3.946	3.745	4.100	3.901	16.116	15.57
Urban Roads Development	3.394	3.828	3.120	2.341	1.500	0.876	1.850	1.702	9.864	8.75
<i>Sub Total</i>	<i>7.472</i>	<i>7.690</i>	<i>7.112</i>	<i>6.398</i>	<i>5.446</i>	<i>3.829</i>	<i>5.950</i>	<i>5.603</i>	<i>25.98</i>	<i>23.52</i>
Community Access Roads	1.869	4.847	2.960	3.238	5.658	3.504	5.240	3.254	15.727	14.84
Total	45.613	48.997	41.842	43.124	44.843	38.944	39.97	35.209	172.268	166.27

Source: MoFPED

*Includes 15 billion Ushs for Kampala

Table 8.2.6 Investment Plan of Road Sub-sector for 2008-2023, National Transport Master Plan of MoWT

Unit: Million USD

		5 Years, 2008-2013	5 Years, 2013-2018	5 Years, 2018-2023
National Road Development Projects	Investment in 5 Years	1,682.9	1,463.1	1,375.0
	Investment per Year	336.6	292.6	275.0
National Road Bridge Development Projects	Investment in 5 Years	57.6	90.0	50.0
	Investment per Year	11.5	18.0	10.0
Upgrading of District Roads to National Roads	Investment in 5 Years	175.0	0.0	0.0
	Investment per Year	35.0	0.0	0.0
District Road Development	Investment in 5 Years	280.6	296.9	286.7
	Investment per Year	56.1	59.4	57.3
Community Access Road Development	Investment in 5 Years	24.2	24.3	24.2
	Investment per Year	4.8	4.9	4.8
Total of Road Investment	Investment in 5 Years	2,220.3	1,874.3	1,735.9
	Investment per Year	444.1	374.9	347.2

Source: Table 18.2, page 191, National Transport Master Plan including Transport Master Plan for the Greater Kampala Metropolitan Area (NTMP/GKMA)

8.3 Present System of Road Maintenance

8.3.1 Current Maintenance Standard and Contents

The current system of road maintenance works is explained in this section, including routine maintenance, periodic maintenance and rehabilitation.

(1) Routine Maintenance

Routine Maintenance is an activity carried out throughout the year, and every road section shall be subject to routine maintenance at least once a year. The work items included in the routine maintenance are as follows:

- Clearing and de-silting of culverts, open and lined channels and culvert outfalls, mitre drains, off shoots and catch water drains.
- Digging up, dismantling and repair or replacement of broken culverts, head walls, wing walls, catch pits or splash aprons.
- Weeding and vegetation control along the carriageway and road verges.

These operations mainly require small-scale, low skill technology. Therefore, for routine maintenance, labour-based construction is suitable. Labour-based construction would contribute to the local economy through direct increase in household incomes and personal expenditures.

The following figures show alternative models of implementing labour-based construction. One is maintenance work by force account, and the other is contracting with private contractors.

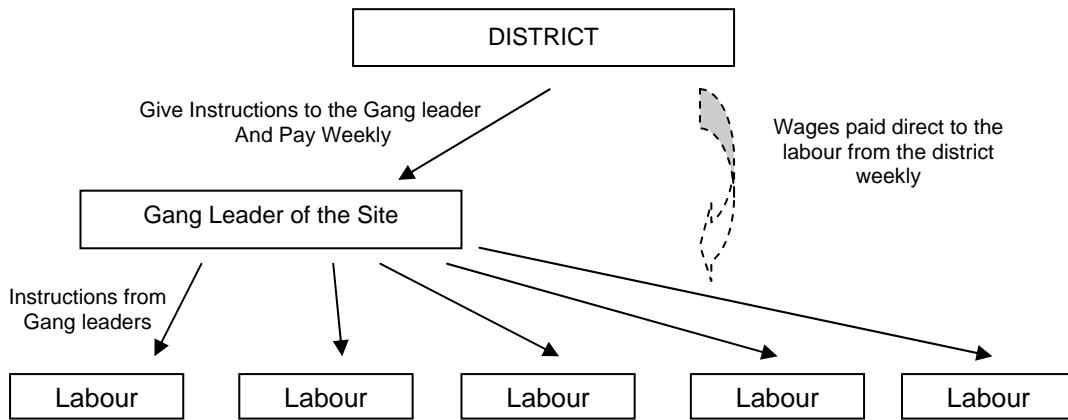


Figure 8.3.1 Business Model of Labour-based Construction by Force Account

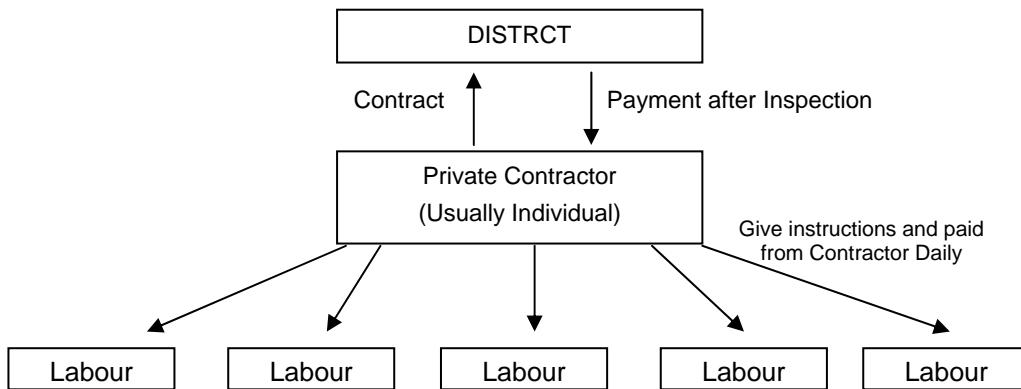


Figure 8.3.2 Business Model of Labour-based Construction by Contract with Private Contractor

(2) Periodic Maintenance

Periodic Maintenance is an activity carried out every few years. According to DUCARIP, district roads are preserved in fair condition by conducting periodic maintenance every 3 years. The work items of periodic maintenance include:

- Reshaping
- Re-graveling
- Spot Improvements on bad sections
- Replacement and repair of broken culverts
- Improvement of side drains

For some of these activities, using machinery is practical and convenient. The combination of labour-based techniques with usage of machinery should be considered.

Using machinery for some work items is efficient, while grass cutting and de-silting are more effectively and efficiently conducted by using labour-based methods. See Figure 8.3.3, which illustrates that the periodic maintenance is to be done by using the two types of techniques. Certain work items are to be done by labour-based methods while other work items are to be carried out using machinery.

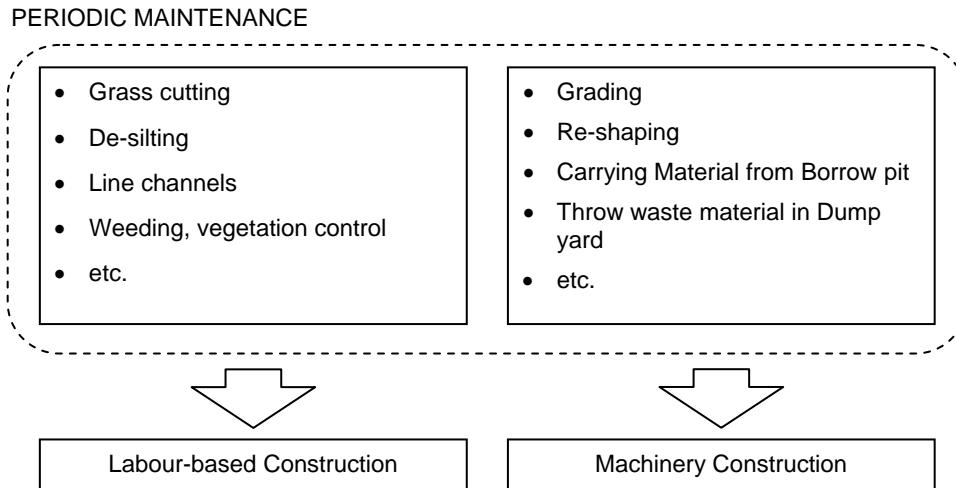


Figure 8.3.3 Periodic Maintenance by Combining Labour-based Construction and Machinery Construction

(3) Rehabilitation

Rehabilitation refers to an activity (or activities) conducted on sections where the road has deteriorated to a state that is beyond the remedial recovery achievable by periodic maintenance, and according to DUCARIP, it is assumed that 15% of the periodic maintenance section is due for rehabilitation. Rehabilitation activities include:

- Bush clearing
- Heavy grading
- Reshaping of the carriageway
- Full gravelling
- Installation of culverts
- Improvement of side drains

8.3.2 Management Method of Road Maintenance at District Level

The District Works Department uses the “Rehabilitation and Maintenance Planning System (RAMPS)” and “Quarterly Progress Reporting System (QPRS)” for monitoring, planning and management of rehabilitation and maintenance of district roads. These tools are supported by computer software, which was developed by the MoWT with DANIDA’s support.

The basic steps of using RAMPS and QPRS are as follows:

- Coding of road sections
- Inputting population data along the road sections
- Inspection of road conditions in the field while using GPS (See the necessary data collected in Tables 8.3.1 and 8.3.2.)
- Inputting data of road conditions and GPS into the RAMPS
- Inputting data on fund sources, such as USAID, JICA, Central Government, into the RAMPS

- Sending the compiled data of RAMPS to the MoWT for further data processing
- Receiving the processed data and map data of RAMPS from MoWT
- Using the road map and inspected data for Quarterly Progress Reports
- Determining priorities for road maintenance by using RAMPS

Road inspection data should be updated every year by conducting field work.

With the inspected road data, the RAMPS then can conduct calculations to determine priority sections for road maintenance and recommend necessary types of maintenance. Estimated budgets and expected monthly expenditures are also given.

However, given that the system considers only the population along the road and condition of the surface in the evaluation, it can be said that the system is inadequate in reflecting the true needs of the people, since other aspects such as availability of health and education facilities are not considered in the system's evaluation. These factors are included manually as deemed necessary by the engineer when assigning priority in the road planning.

Figure 8.3.4 illustrates a cycle of maintenance management that makes use of RAMPS and QPRS. The GIS system indicated on the figure was a system which was developed with RAMPS and QPRS together. However, this system is relatively obsolete given the difficulties faced in the operation and maintenance of the system. So the component of the maintenance management that should be handled by GIS is instead carried out manually by the engineers' judgment.

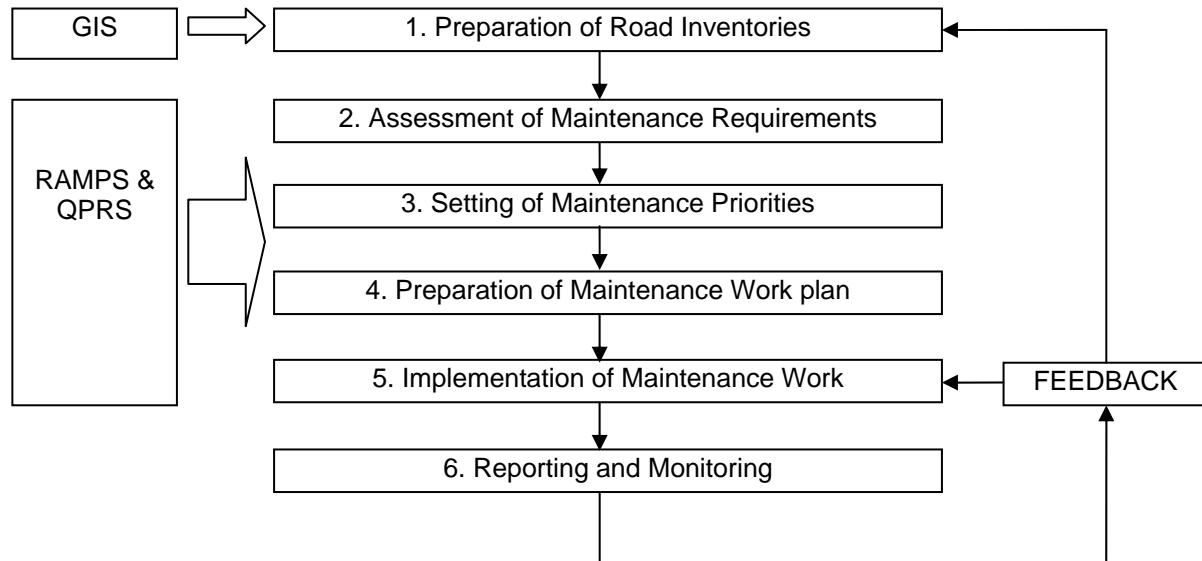


Figure 8.3.4 Typical Maintenance Management Cycle

Table 8.3.1 Data to be Collected for Road Section Condition Assessment by Annual District Road Inventory and Condition Survey (ARDICS)

No.	Data Item to be Collected	Items in Look-up Table
1	Road Section No.	-
2	Km of Start	-
3	Km of End	-
4	Road Section Length	-
5	Road Surface Type	1. Earth: Not gravelled in the last 5 years 2. Gravel: Gravelled in the last 5 years 3. Paved
6	Year Last Surfaced	
7	Surface Material Factor	1. Good: Surface wears steadily 2. Fair: Surface wears quickly 3. Bad: Surface damages quickly
8	Material Proximity Factor	1. Near: Haul 0-5 km 2. Average: Haul 5-15 km 3. Far: Haul > 15 km
9	Traffic Group Factor	1. Very Light: <20 vehicles/day 2. Light: 20-30 vehicles/day 3. Medium: 30-40 vehicles/day 4. Heavy: >40 vehicles/day
10	Drainage Condition Factor of Left Side	1. Good: No water on the road during rain; No erosion or silt deposits; good roadside drainage 2. Fair: Some water on the road during rain; some erosion/scouring in roadside drain, or drains half silted 3. Poor: A lot of water on the road during rain; severe erosion/scouring in roadside drains, or drains fully silted 4. Bad: Non existent/non functioning drainage system
11	Drainage Condition Factor of Right Side	1. Good: No water on the road during rain; No erosion or silt deposits; good roadside drainage 2. Fair: Some water on the road during rain; some erosion/scouring in roadside drain, or drains half silted 3. Poor: A lot of water on the road during rain; severe erosion/scouring in roadside drains, or drains fully silted 4. Bad: Non existent/non functioning drainage system
12	Shoulder Condition Factor of Left Side	1. Good: Good shape, allowing easy runoff from the road surface into the roadside drains; shoulder not eroded 2. Fair: Uneven shape, but allowing most water to run off the road surface into the road drains; some erosion of shoulder 3. Poor: Poor shape and seriously restricts water runoff from the road surface into the roadside drains; severe erosion of shoulder 4. Bad: Non functioning or non existent
13	Shoulder Condition Factor of Right Side	1. Good: Good shape, allowing easy run off from the road surface into the roadside drains; shoulder not eroded 2. Fair: Uneven shape, but allowing most water to run off the road surface into the road drains; some erosion of shoulder 3. Poor: Poor shape and seriously restricts water runoff from the road surface into the roadside drains; severe erosion of shoulder 4. Bad: Non functioning or non existent
14	Surface Condition Factor	1. Good: Roughness <8m/km; good shape, smooth running surface 2. Fair: Roughness 9-14m/km; reasonable shape, corrugations and potholes up to 10cm deep 3. Poor: Roughness 15-18m/km; poor shape, frequent depressions, rutting and potholes > 10cm deep 4. Bad: Roughness >18m/km; bad shape, deep depressions and potholes, serious rutting, 4WD-dry weather only
15	Bottleneck Yes or No	- Any section of the road that needs emergency repair - Broken or missing structures (bridge, culvert, etc.) that restrict access
16	Comments (particularly concerning Bottlenecks)	-

Source: District Road Works, Volume 1: Planning Manual, Manual B: Annual District Road Inventory and Conditions Survey (ARDICS), June 2002

Table 8.3.2 Data to be Collected for Structure Inventory and Condition Assessment by Annual District Road Inventory and Condition Survey (ARDICS)

No.	Data Item to be Collected	Items in Look-up Table
1	Structure No.	-
2	Structure Type	A. R/C Bridge B. Composite Bridge C. Bailey Bridge D. Steel Truss Bridge E. Timber Bridge F. Other Bridge Type G. Concrete Pipe Culvert H. Steel Pipe Culvert I. Concrete Box Culvert J. Vented Ford K. Drift L. Other Structure Types
3	Location (Chainage)	-
4	No. of Spans (Bridge Only)	-
5	Width (m)	
6	Length (m)	
7	No. of Openings (Culvert Only)	
8	Size of Openings (Culvert Only)	
9	Head Walls Yes or No	
10	Structure Conditions	1. Good: No work required 2. Fair: Minor work required 3. Poor: Major work required 4. Bad: In danger of failure or failed
11	Details of Work to be Done / Comments	

Source: District Road Works, Volume 1: Planning Manual, Manual B: Annual District Road Inventory and Conditions Survey (ARDICS), June 2002

9. REVIEW OF NATIONAL TRANSPORT MASTER PLAN AND ROAD MAINTENANCE PLANS

9.1 Introduction

There are various levels (from national, district and to sub-county levels) of master plans and development plans pertinent to the road sub-sector including improvement and maintenance. In this chapter, the following six plans are reviewed:

- Road Sector Development Program (RSDP) and Road Sector Development Program 2 (RSDP2)
- National Transport Master Plan including a Transport Master Plan for the Greater Kampala Metropolitan Area (NTMP/GKMA) 2008-2023 (May 2009)
- The Ten-Year District, Urban and Community Access Roads Investment Plan (DUCARIP), Final Draft (February 2008)
- Road Programmes in District Development Plan of Former Amuru District 2009/10-2011/12
- Road Programmes in Sub-county Development Plans (8 Sub-counties in Former Amuru District) 2009/10-2011/12

9.2 Road Sector Development Programme (RSDP) and Road Sector Development Programme 2 (RSDP2)

At a conference with its development partners in Paris in 1996, the government of Uganda agreed to a 10-year Road Sector Development Programme for 1996/97-2005/06. The program was projected to cost 1.5 billion USD. As seen in Table 8.2.3, between 2002 and 2005, almost one billion USD was spent on development and maintenance of national roads and district roads. RSDP was formulated to achieve the following strategic objectives:

- To provide a national road network capable of meeting the present and future traffic demand while harmoniously integrating with road safety and environmental protection requirements
- To establish and develop a strong road administration for effective and efficient management of the national road network
- To enhance and develop the local construction industry

Based on the mid-term review of RSDP in 2002, a rolling programme, called the Road Sector Development Programme 2 (RSDP2) was agreed at an estimated cost of 2.28 billion USD. This second programme formally covered the expenditure for district, urban and community access roads (DUCAR), while the 1996 programme did not consider them.

9.3 National Transport Master Plan including a Transport Master Plan for the Greater Kampala Metropolitan Area (NTMP/GKMA) 2008-2023

(1) Outline

The National Transport Master Plan was established in May 2009, including a Transport Master Plan for the Greater Kampala Metropolitan Area (NTMP/GKMA), for the purpose of setting a clear framework for development of the transport sector over a 15-year period from 2008 to 2023. Based on an extensive analysis including future traffic demand forecast, the NTMP/GKMA provides a realistic 15-year investment plan, covering all transport modes including roads, railways, civil aviation, inland water transport, urban transport in GKMA and other modes of transport, including pipelines and non-motorised transport. Besides the investment plan, it also addresses necessary management frameworks including institutional, legal, financial, land and environmental issues, and sets out a roadmap for stakeholder participation.

The total investment over the 15 years amounts to 8,800 million USD at mid-2008 prices. A summary of investments by transport mode and 5-year phase is given in Table 9.3.1.

Table 9.3.1 Summary of Transport Investment Expenditures (2008-2023)

Units: Million USD

Description	Investment Expenditures			
	2008/09-2012/13	2013/14-2017/08	2018/19-2022/23	Total
National Roads	2,023.4	1,643.1	1,515.0	5,181.5
District, Urban and Community Roads	624.7	499.7	487.5	1,612.0
Railways	51.7	390.7	18.6	461.0
Air Transport	88.2	91.7	54.6	234.5
Inland Water Transport	54.5	59.0	16.5	130.0
Greater Kampala (GKMA)	156.9	413.7	610.1	1,180.6
Total	2,999.3	3,097.9	2,702.4	8,799.6

Source: NTMP, 2009

(2) Activities and Investment Plans

1) Roads and Road Transport

The investment plan for the road sub-sector is based on the Road Sector Development Programme (RSDP), the UNRA Strategic Plan and the District and Urban Roads Improvement Programme (DUCARIP) of 2008. The NTMP shows activities which are necessary to be implemented during the 15 years as shown in Table 9.3.2.

Table 9.3.2 Activities for Roads and Road Sub-sector

Activities 2008-13	Activities 2013-18	Activities 2018-23
<ul style="list-style-type: none"> • Eliminate maintenance backlog on National Roads • Reconstruction of Northern Corridor Road • Plan and start construction of new bridge at Owen Falls • Upgrade approx 9,000 km of District Roads to National Roads • Upgrade approx 1,050 km of National Roads to paved • Improve to dual lane approx 70 km of existing National Roads • Implement first 5 years of DUCARIP programme 	<ul style="list-style-type: none"> • Complete construction of Nile Bridge • Upgrade approx 1,500 km of National Roads to paved • Improve to dual lane approx 75 km of National Roads • Implement second 5 years of DUCARIP programme 	<ul style="list-style-type: none"> • Upgrade approx 1,500 km of National Roads to paved • Improve to dual lane approx 125 km of National Roads • Continue investments in District, Urban and Community Roads at same rate as in 2017/18

Source: NTMP, 2009

National Roads

National roads, which are to be upgraded to paved roads, are planned to be completed in the first five years of the Investment Plan by mid-2013. Major reconstruction works on poor sections of national roads will also continue during the first five years. The paved network, which was 3,051 km long in mid-2008, will have increased in length to over 4,100 km by 2013 and 7,100 km by the end of the investment plan.

Table 9.3.3 National Roads Planned for Upgrading (2008-2023)

Road Sections	Length (km)	Road Sections (Under Construction)	Length (km)
Kabale-Kisoro-Bunagana/Kyanika	98	Masaka-Bukakata	36
Gayaza-Zirobwe-Wobulenzi	67	Atiak-Moyo	93
Soroti-Dokolo-Lira	123	Kyenjojo-Hoima-Masindi-Kigumba	238
Fort Portal-Bundibugyo-Limia	103	Mpigi-Maddu-Sembabule	135
Matuga-Semuto-Kapeka	42	Tirinyi-Pallisa-Kumi/Pallisa-Mbale	69
Hoima-Kaiso-Tonya	78	Mbale-Bubulo-Lwakhakha	41
Busega-Mityana	57	Namagumba-Budadiri	30
Kampala Northern Bypass	21	Mbarara-Kikagati	35
Muyembe-Moroto	191	Rukungiri-Ishasha	50
Kapchorwa-Suam	77	Rwenkunye-Apac-Lira-Kitgum	230
Gulu-Atiak-Bibia	94	Mukono-Kyetume-Katosi/Kisoga-Nyenga	72
Mirama Hills-Ntungamo/Kagamba-Ishaka		Kamuli-Bukungu	64
		Villa Maria-Ssembabule	48
Total Length	1,055	Total Length	1,141

Source: NTMP, 2009

Table 9.3.4 shows the investment plan for the national road network for the period of 2008-2023. The backlog of periodic maintenance should largely be completed by 2012/13, and it is assumed that, in subsequent years, an amount of 15 million USD annually will suffice for emergencies. Major reconstruction and upgrading of reclassified national roads from district roads will be intensively implemented in the first five years. .

Table 9.3.4 National Road Network Investment Plan (2008-2023)

Units: Million USD

Description	2008/09	2009/10	2010/11	2011/12	2012/13	5-Year Totals
Backlog of Periodic Maintenance and Emergencies	30.00	30.75	10.51	10.77	11.04	93.07
Reconstruction of National Roads	87.74	184.16	215.40	79.40	N/A	566.70
Upgrading of National Roads	34.20	190.60	312.80	336.75	241.80	1,116.15
Upgrading of ex-District Roads	35.00	35.00	35.00	35.00	35.00	175.00
Bridge Schemes	4.91	15.86	8.95	8.95	18.95	57.62
Ferry Investments at “Road Bridges”	0.53	5.21	3.03	3.03	3.03	14.83
Totals	192.38	461.58	585.69	473.90	299.82	2,013.37
Description	2013/14	2014/15	2015/16	2016/17	2017/18	5-Year Totals
Provision for Emergencies	15.00	15.00	15.00	15.00	15.00	75.00
Reconstruction of National Roads	N/A	N/A	N/A	N/A	N/A	N/A
Upgrading of National Roads	298.90	339.20	275.00	275.00	275.00	1,463.10
Bridge Schemes	30.00	30.00	10.00	10.00	10.00	90.00
Ferry Investments at “Road Bridges”	3.00	3.00	3.00	3.00	3.00	15.00
Totals	346.90	387.20	303.00	303.00	303.00	1,643.10
Description	2018/19	2019/20	2020/21	2021/22	2022/23	5-Year Totals
Provision for Emergencies	15.00	15.00	15.00	15.00	15.00	75.00
Reconstruction of National Roads	N/A	N/A	N/A	N/A	N/A	N/A
Upgrading of National Roads	275.00	275.00	275.00	275.00	275.00	1,375.00
Bridge Schemes	10.00	10.00	10.00	10.00	10.00	50.00
Ferry Investments at “Road Bridges”	3.00	3.00	3.00	3.00	3.00	15.00
Totals	303.00	303.00	303.00	303.00	303.00	1,515.00

Source: NTMP, 2009

District, Urban and Community Access Roads

NTMP incorporates the District, Urban and Community Access Roads Improvement Programme (DUCARIP). Table 9.3.5 shows the projected outputs in the sub-sector of DUCAR by the year 2018.

Table 9.3.5 Projected Outputs over the 10 years 2008-2018

Road Classification	Projected Outputs
District Roads	<ul style="list-style-type: none"> - Raise percentage in good or fair condition from 67 % to 78 % - Rehabilitate 11,067 km, including 10,095 km with low-cost sealing - Undertake periodic maintenance on 4,500 km each year - Place 21,513 km under routine maintenance
Urban Roads	<ul style="list-style-type: none"> - Raise percentage in good or fair condition from 25 % to 70 % - Rehabilitate and apply low-cost seals to 2,550 km - Undertake periodic maintenance on 300 km each year - Place 3,140 km under routine maintenance - Install street lighting and construct side pavements over 486 km
Kampala City Roads	<ul style="list-style-type: none"> - Seal 600 km of gravel roads over ten years - Reseal 60 km of sealed roads each year - Undertake periodic maintenance on 240 km each year - Undertake routine maintenance on sealed and gravel roads
Community Access Roads	<ul style="list-style-type: none"> - Raise percentage of roads achieving Access Level 2 (through dry seasons and for part of the wet seasons) from 15 % to 50 % - To achieve this, improve 1,000 km of roads each year to Access Level 2

Source: NTMP, 2009

Projected expenditures over 15 years are given in Table 9.3.6.

Table 9.3.6 District, Urban and Community Road Network Investment Plan (2008-2023)

Units: Million USD

Description	2008/09	2009/10	2010/11	2011/12	2012/13	5-Year Totals
District Roads	45.5	51.3	56.9	64.1	62.8	280.6
Kampala City Council Roads	15.3	15.3	15.3	15.2	15.0	76.1
Urban Roads	8.6	12.4	16.3	19.8	19.8	76.9
Community Access Roads	4.8	4.9	4.8	4.9	4.8	24.2
Bridges and Capacity Building	1.8	1.7	1.8	1.7	1.6	8.6
UNRA equipment purchase	107.3	51.0	N/A	N/A	N/A	158.3
Totals	183.3	136.6	95.1	105.7	104.0	624.7
Description	2013/14	2014/15	2015/16	2016/17	2017/18	5-Year Totals
District Roads	61.5	60.4	59.3	58.3	57.4	296.9
Kampala City Council Roads	14.9	14.8	14.6	14.4	14.4	73.1
Urban Roads	19.8	19.6	19.6	19.6	19.4	98.0
Community Access Roads	4.9	4.8	4.9	4.8	4.9	24.3
Bridges and Capacity Building	1.6	1.5	1.4	1.5	1.4	7.4
UNRA equipment purchase	N/A	N/A	N/A	N/A	N/A	N/A
Totals	102.7	101.1	99.8	98.6	97.5	499.7
Description	2018/19	2019/20	2020/21	2021/22	2022/23	5-Year Totals
District Roads	57.3	57.4	57.3	57.4	57.3	286.7
Kampala City Council Roads	14.4	14.4	14.4	14.4	14.4	72.1
Urban Roads	19.4	19.4	19.4	19.4	19.4	97.2
Community Access Roads	4.8	4.9	4.8	4.9	4.8	24.2
Bridges and Capacity Building	1.5	1.4	1.5	1.4	1.5	7.3
UNRA equipment purchase	N/A	N/A	N/A	N/A	N/A	N/A
Totals	97.5	97.5	97.5	97.5	97.5	487.5

Source: NTMP, 2009

2) Rail Transport

In the past, Uganda had a rail network of 1,266 km, extending with branches from the Kenyan border at Malaba to Kasese in the west and to Pakwach in the north. However, the services to Pakwach and to Kasese are currently not operating, and the “Busoga Loop” north and east of Jinja has also ceased being operational.

The present operational network is only some 330 km in length, covering the following sections, which are operated under the Rift Valley Railways (RVR) Concession:

- Malaba – Jinja – Kampala
- Jinja – Jinja Pier
- Kampala – Port Bell
- Kampala – Nalukolongo
- Tororo – Mbale

NTMP proposes future railway investments for the next 15-year period, as shown in Table 9.3.7. It is assumed that private investors will cover 80 % of the necessary costs while the government will cover 20 % of them. Although the investment amount is estimated for reconstruction to the standard gauge (1.435 m), which is a shared long-term goal among the

East Africa Community (EAC) countries, the adoption of standard gauge for all these lines has not been decided upon yet.

Reconstruction of the Kampala-Kasese line, with high potential flows of cement and other commodities, is considered as the first priority, to be followed by the Tororo-Pakwach line reconstruction.

Table 9.3.7 Activities for Rail Transport Sub-sector

Activities 2008-13	Activities 2013-18	Activities 2018-23
<ul style="list-style-type: none"> • Plan for and arrange partnerships and finance for expected rehabilitation and new line works 	<ul style="list-style-type: none"> • Rehabilitate Kasese and Pakwach line • Start construction of Gulu-Sudan line 	<ul style="list-style-type: none"> • Complete Gulu-Sudan line • Plan additional investments depending on perceived markets, international agreements etc (lines to Kisangani, Kigali, conversion to standard gauge etc)

Source: NTMP, 2009

Table 9.3.8 Rail Transport Investment Plan (2008-2023)

Line	Length of Route (km)	Investment Cost (Million USD)	GoU Share of Investment (Million USD)	Priority
Kampala – Kasese Line	345	700	140 (20 %)	1
Tororo – Pakwach Line	505	800	160 (20 %)	2
Malaba – Kampala Line	250	500	56 (20 %)	3
Gulu – Nimule Line	140	280	100 (20 %)	4
Total	1,240	2,280	456 (20 %)	

Source: NTMP, 2009

3) Air Transport

The NTMP, which is based on the 20-year Investment Development Programme for Entebbe, and an assessment of the need for the up-country network, consists of the following five components of the air transport sub-sector:

- Entebbe International Airport: Implementation of the Investment Development Programme
- Other Entry-Exit Airports: Improvement or installation of runways, aprons, navigational aids and radio, terminal buildings and other development infrastructure
- Other Civil Aviation Authority (CAA) Airports: Refurbishment of facilities and deferred maintenance
- Non-CAA Airports: Refurbishment of facilities and deferred maintenance – note that Fort Portal is not included as it is privately owned
- New up-country airports: Construction of simple runway and terminal facilities (Yumbe, Rukungiri, Ntungamo/Rwentobo, Pader, Apac, Nakasongola, Kiboga, Sembabule and Rakai)

Tables 9.3.9 and 9.3.10 show necessary activities and projected investments for the Air Transport Sub-sector over the next 15 years.

Table 9.3.9 Activities for Air Transport Sub-sector

Activities 2008-13	Activities 2013-18	Activities 2018-23
<ul style="list-style-type: none"> • Continue investments at Entebbe to meet growing demand • Upgrade other entry-exit airports • Construct new up-country airports to serve districts 	<ul style="list-style-type: none"> • Continue investments at Entebbe to meet growing demand • Invest at other entry-exit airports • Construct proposed Rwentobo regional airport • Construct new up-country airports to serve districts 	<ul style="list-style-type: none"> • Continue investments at Entebbe to meet growing demand • Invest at other entry-exit airports • Construct new up-country airports to serve districts

Source: NTMP, 2009

Table 9.3.10 Air Transport Investment Plan (2008-2023)

Units: Million USD

Description	Investment Expenditure			
	2008/09-2012/13	2013/14-2017/08	2018/19-2022/23	Total
Entebbe International	37.20	30.20	25.60	93.00
Other Entry-Exit Airports	42.00	23.50	23.50	89.00
Other CAA Airports	3.50	2.00	1.50	7.00
Non-CAA Airports	1.50	1.00	1.00	3.50
New Up-Country Airports	4.00	35.00	3.00	42.00
Total	88.20	91.70	54.60	234.50

Source: NTMP

4) Inland Water Transport

About 17 % of Uganda's surface area is covered by water or swamp, and there has been a long history of water transport on the lakes (especially Lakes Victoria, Kyoga and Albert) and on rivers (principally on the Nile). There are two major inland water transports, namely Wagon Ferry Services and Road Bridges.

Since 2005, Wagon Ferry Services have been operated only by the Tanzanian wagon ferry "Umoja", which provides limited service between Port Bell and Mwanza. The Ugandan wagon ferries were included in the railway concession from November 2006.

Vehicle ferries are operated as "Road Bridges" at the following seven crossings on the River Nile and Lakes Victoria and Albert:

- Bukakata-Luuku: Lake Victoria
- Nakiwogo-Kyanvubu: Lake Victoria
- Kiyindi-Buvuma: Lake Victoria
- Masindi Port-Kungu: Victoria Nile
- Paraa Ferry: Victoria Nile
- Wanseko-Panyimur: Lake Albert
- Laropi-Umi: Albert Nile

In the 15-year investment programme for the sector, it is planned that seriously dilapidated port facilities and landing sites will be rehabilitated so as to ensure that small craft can have safe and easy passage to beaches or small jetties where passengers can easily board or land,

and where there will also be adequate land side access. Larger investments will be made at some ports with higher potential traffic levels such as Port Bell, Jinja or Butiaba.

Tables 9.3.11 and 9.3.12 show necessary activities and the estimated expenditure for re-development of Inland Water Transport.

Table 9.3.11 Activities for Inland Water Transport Sub-sector

Activities 2008-13	Activities 2013-18	Activities 2018-23
<ul style="list-style-type: none"> • Rehabilitate selected ports and landing sites • Rehabilitate and augment wagon ferry fleet on Lake Victoria 	<ul style="list-style-type: none"> • Continue infrastructure improvements on lakes and rivers 	<ul style="list-style-type: none"> • Continue with infrastructure improvements as required

Source: NTMP, 2009

Table 9.3.12 Inland Water Transport Investment Plan (2008-2023)

Description	Investment Expenditure				Units: Million USD
	2008/09-2012/13	2013/14-2017/08	2018/19-2022/23	Total	
Lake Victoria	32.50	17.00	3.50	53.50	
Victoria Nile	5.00	N/A	N/A	5.00	
Lake Bisina	N/A	3.50	N/A	3.50	
Lake Kyoga	3.50	8.50	2.50	14.50	
Lake Albert	13.50	21.50	3.00	38.00	
Albert Nile	N/A	7.00	N/A	7.00	
Lake Edward	N/A	N/A	6.00	6.00	
Lake George	N/A	N/A	1.50	1.50	
Lake Bunyonyi	N/A	1.50	N/A	1.50	
Total	54.50	59.00	16.50	130.00	

Source: NTMP

Source: NTMP, 2009

Figure 9.3.1 National Road and Inland Water Networks (2023)

9.4 The Ten Year District, Urban and Community Access Roads Investment Plan (DUCARIP)

The objective of the DUCARIP is to provide a financing framework for investments in district, urban and community access roads, based on the Strategy for Sustainable Maintenance of District, Urban and Community Roads, which was approved by the parliament in April 2005.

The final draft of DUCARIP was completed in March 2008. However, it has not been approved by the government during the recent discussion on adopting a force-account system and mixture of labour-based and equipment-based methods for maintenance of district roads and community access roads.

The expected contribution of the implementation of the plan is as follows:

- To contribute to economic growth and to increase household incomes;
- To improve the condition of the road network;
- To increase the sealed road network through low-cost sealing;

- To facilitate value preservation of road assets through maintenance of the existing road network;
- To create employment through the use of labour-based methods; and
- To facilitate capacity building of local governments, local consultants and contractors.

To reflect existing conditions of community access roads, the DUCARIP considers the following different access levels for community access roads:

- Access Level I: Accessible during dry seasons and most periods of wet seasons.
- Access Level II: Accessible during dry seasons and limited periods of wet seasons.
- Access Level III: Accessible only during dry seasons.

Most of the community access roads are presently not in motorable condition and hence do not meet the criteria for access level III roads. The interventions proposed in DUCARIP on the community access roads aim at improving the community access roads to at least access level II. The predominant intervention planned under this DUCARIP is construction of culverts, French-drains, foot-bridges and foot-steps while the carriageway surface remains earth. In some isolated areas, some interventions, which are different from the above, such as ladders, sand bags and splashes, may be implemented.

The 10-year budget for district roads was estimated to be 953 billion Ushs while the 10-year budget for urban roads was estimated to be 289 billion Ushs. The 10-year budget for community access roads will be 80 billion Ushs. The projected total expenditure for Kampala City Council roads is 246 billion Ushs. Bridge works are projected to cost 20 billion Ushs while capacity building activities will cost 6 billion Ushs. A summary of the projected expenditures is shown in Table 9.4.1.

Table 9.4.2 shows the allocation of district road budget to maintenance, rehabilitation and low-cost sealing in the proposed DUCARIP.

In accordance with DUCARIP, 9,787 million Ushs is to be allocated to former Amuru District. The annual budgetary plan is shown in Table 9.4.3.

Table 9.4.1 DUCARIP Expenditures (Proposed in Final Draft)

Unit: Billions Ushs.

	2008 /09	2009 /10	2010 /11	2011 /12	2012 /13	2013 /14	2014 /15	2015 /16	2016 /17	2017 /18	Total
District Roads	75.1	84.6	94.0	105.7	103.6	101.6	99.7	97.9	96.2	94.6	952.9
Urban Roads	14.3	20.5	26.8	32.6	32.7	32.7	32.3	32.3	32.4	32.1	288.7
Kampala City Roads	25.2	25.2	25.2	25	24.8	24.5	24.3	24.1	23.8	23.8	246.1
Community Access Roads	8	8	8	8	8	8	8	8	8	8	80
Bridge Works	2	2	2	2	2	2	2	2	2	2	20.1
Capacity Building	0.9	0.9	0.9	0.9	0.6	0.6	0.4	0.4	0.4	0.4	6.4
Total	125.5	141.2	156.9	174.2	171.7	169.4	166.7	164.7	162.8	160.9	1,594.2

Exchange Rate: 1 USD = 1,850Ushs

Source: Final Draft, DUCARIP, March 2008

Table 9.4.2 District Roads Projected Expenditures (Proposed in Final Draft of DUCARIP)

Unit: Million Ushs.

Intervention	2008 / 09	2009 / 10	2010 / 11	2011 / 12	2012 / 13	2013 / 14	2014/ 15	2015/ 16	2016/ 17	2017/ 18	Total
Routine Maintenance	10,360	10,249	10,027	9,720	9,489	9,284	9,104	8,946	8,811	8,697	94,684
Periodic Maintenance	38,124	38,124	38,124	36,267	34,411	32,554	30,827	29,249	27,671	26,203	331,554
Rehabilitation (Labor-based)	17,002	17,002	17,002	21,804	21,804	21,804	21,804	21,804	21,804	21,804	203,633
Low-cost sealing	9,600	19,200	28,800	37,920	37,920	37,920	37,920	37,920	37,920	37,920	323,040
Total	75,086	84,575	93,952	105,711	103,623	101,562	99,654	97,919	96,206	94,624	952,911

Exchange Rate: 1 USD = 1,850 Ushs

Source: Final Draft, DUCARIP, March 2008

Table 9.4.3 DUCARIP Budget for Districts in Acholi Sub-region (Proposed in Final Draft)

Unit: Million Ushs.

District	District Roads (km)	% District Roads	2008 / 09	09 / 10	10 / 11	11 / 12	12 / 13	13 / 14	14 / 15	15 / 16	16 / 17	17 / 18	Total
Former Amuru	168	0.6	414	1,073	1,074	1,063	1,051	1,041	1,031	1,022	1,013	1,005	9,787
Gulu	323	1.2	1,330	1,331	1,330	1,306	1,281	1,257	1,235	1,215	1,195	1,176	12,656
Former Kitgum	306	1.1	1,302	1,303	1,302	1,279	1,256	1,234	1,213	1,194	1,175	1,158	12,416
Former Pader	376	1.4	1,417	1,418	1,417	1,388	1,359	1,330	1,304	1,280	1,256	1,234	13,403
Acholi Total	27,422	100	4,463	5,125	5,123	5,036	4,947	4,862	4,783	4,711	4,639	4,573	48,262

Source: Final Draft, DUCARIP, March 2008

9.5 Review of Road Programmes in District Development Plans of Former Amuru District

(1) District Development Plan

The District draws up a District Development Plan (DDP) annually, and submits it to the Central Government in order to apply for the budgetary allocations for the next fiscal year. DDPs are prepared by the bottom-up process, based on the Community Action Plan (CAP) and Sub-county Development Plan.

The DDP is comprised of a situational analysis, objective and strategy of the plan, performance review and development plan implementation. Priority projects of civil works including cost estimates are stated as well in the DDP. Most of the projects are, however, not implemented, since sufficient budgetary allocations for the project implementation are usually not secured.

The sector mission of civil works is described in the Amuru DDP as follows:

- To increase accessibility by roads as well as provision of an efficient and sustainable road network that is sufficient to meet present and future traffic demand to all socio-economic centres in the district
- To provide technical support to the lower local governments and the community for effective planning, operation and maintenance of roads infrastructure for a sustainable development

The road list showing required activities and priority projects described in DDP is shown below.

(2) National Roads

In January 2009, the Ministry of Works and Transport reclassified some district roads into national trunk roads. The total length of national roads in Amuru District reached 491.45km after upgrading the 158.45km in January 2009. The maintenance of national roads is the responsibility of the central government. The road list with the respective required activities is described in the DDP.

- The condition of pavement on the all weather national trunk road from Karuma - Olwiyo – Pakwach, approximately 110 km, remains in good condition. The maintenance of the shoulders and side drains is required.
- The road from Awee to Rhino camp was upgraded to national road last year. While routine maintenance is required for the section from Awee to Omee, the remaining section requires new construction of the road up to the Rhino camp which is located close to the Albert Nile.
- Periodic maintenance is proposed for other national roads. Repair work is required at the bottleneck on the road from Amuru Junction to Adjumani.
- A total of 98km of Katikati - Pabbo - Atiak – Nimule will be improved with pavement under a WB and JICA loan project, which will commence within the year.

Table 9.5.1 National Roads in Former Amuru District, July 2009

Road Name	Road Surface Type	Length (km)	Activity Required	Location (Sub-county)
Karuma - Olwiyo - Pakwach	Bituminized	110	Maintenance of the shoulders and side drains	Koch Goma, Anaka, Purongo
Awee - Amuru - Omee - Rhino Camp	Loose surface gravel road and partly earth road	120	Routine maintenance from Awee - Omee and opening up road from Omee - Rhino Camp	Lamogi, Amuru Town Council, Amuru
Nwoya - Lamogi	Loose surface gravel road	34.4	Routine maintenance	Alero, Lamogi
Temum - Adegmunu	Loose surface gravel road	6.65	Periodic maintenance	Alero
Unyama - Pabbo	Loose surface gravel road	9.4	Periodic maintenance	Pabbo
Pabbo - Ceri	Loose surface gravel road	43	Periodic maintenance	Pabbo, Adjumani
Katikati - Pabbo - Atiak - Nimule	Loose surface gravel road	98	Periodic maintenance	Lamogi, Pabbo, Atiak
Amuru Junction - Zoka - Mungula - Adjumani	Loose surface gravel road	70	Periodic maintenance, repair of road bottlenecks	Amuru, Adjumani
Gulu – Koch Goma – Olwiyo	Loose surface gravel road	42		Koch Goma, Anaka, Purongo
TOTAL		533.45		

Source: District Development Plan (DDP) of Former Amuru District (2009/10-2011/12) with some modification by the JICA Study Team

Table 9.5.2 District Roads Reclassified as National Trunk Roads in Former Amuru District, January 2009

Road Code	Road Name	Length (km)	Maintainable section (km)	Recommended interventions	Remarks
7102	Awer - Amuru - Omee	65	65	Periodic maintenance	Lamogi, Amuru, Rhino Camp
7103	Nwoya -Lamogi	34.4	34.4	Periodic maintenance	Lamogi, Alero, Anaka
7105	Temum - Adegmunu	6.65	6.65	Periodic maintenance	Gulu, Alero, Anaka
7109	Pabbo - Ceri	43	43	Rehabilitation	Amuru, Adjumani
7120	Pabbo -Unyama	9.4	9.4	Rehabilitation	Gulu, Amuru
TOTAL		158.45	158.45		

Source: District Development Plan (DDP) of Former Amuru District (2009/10-2011/12)

(3) District Roads

Amuru District has a total of 331.4km of feeder road network coverage as a result of upgrading a length of 158.45km of the roads into National roads and a length of 223km from the community access roads. Most of roads are presently in existence but the proposed roads or footpaths are included. The length of District roads is considerably shorter, i.e almost two thirds of the national road length. Considering the road network balance, it is necessary to increase the length of district roads. On the other hand, the capability for maintenance work that is mainly labour based should be improved to maintain the road condition properly. The following interventions are recommended in the DDP so that the district is in charge of the maintenance of district roads.

- For the district roads other than those newly upgraded from the community access roads, 4 roads are in good condition and need routine maintenance. On the other hand, others remain in bad condition and require rehabilitation.
- Most of the roads upgraded from the community access roads require rehabilitation and upgrading to District Class III feeder roads.
- Two roads crossing the Aswa River were improved and the bridges were constructed under the pilot project in this study.

Table 9.5.3 Current District Road Network after Reclassifying some roads into National Roads in Former Amuru District, January 2009

Road Code	Road Name	Length (km)	Maintainable Section (km)	Recommended Interventions	Location (Sub County)
7106	Goma - Wilacic	9.6	9.6	Good condition, needs routine maintenance	Koch Goma
7114	Alero - Aswa River - Amuru	21	21	Good condition, needs routine maintenance	Alero, Amuru
7115	Purongo -Lagazi	6.5	6.5	Good condition, needs routine maintenance	Purongo
7118	Keyo - Lalem	3.3	3.3	Good condition, needs routine maintenance	Lamogi
7119	Koch Goma -Langol	20	20	Bad condition, requires rehabilitation	Koch Goma, Alero
7127	Atiak - Karawal	12	12	Bad condition, requires rehabilitation	Atiak
7128	Goma - Lii -Pajok II	36	36	Bad condition, requires work on road bottlenecks at Lii and Adibuk streams	Koch Goma
TOTAL		108.4	108.4		

Source: District Development Plan (DDP) of Former Amuru District (2009/10-2011/12)

Table 9.5.4 Community Access Roads Reclassified into District Roads in Former Amuru District, June 2009

Road Code	Road Name	Length (km)	Maintainable section (km)	Recommended interventions	Location
7129	Otwee - Anaka	40	10	Rehabilitation and upgrading to District Class III feeder road, Construction of multiple span bridge over River Aswa	Amuru, Alero, Anaka
7130	Otwee - Aswa - Lolum	51	20	Rehabilitation and upgrading to District Class III feeder road, rehabilitation of multiple span bridge over River Aswa	Amuru, Alero, Purongo
7131	Otwee - Mutema - Okungedi	17	17	Rehabilitation and upgrading to District Class III feeder road	Amuru
7132	Ober Abic - Otici - Olinga -Pabbo	48	14	Rehabilitation and upgrading to District Class III feeder road	Amuru, Lamogi, Pabbo, Atiak
7133	Olinga - Olamnyungu - Ayugi - Atiak	45	15	Rehabilitation and upgrading to District Class III feeder road	Atiak, Pabbo
7134	Alero - Amar	22	22	Periodic maintenance	Alero, Koch Goma, Anaka
TOTAL		223	98		

Source: District Development Plan (DDP) of Former Amuru District (2009/10-2011/12)

(4) Community Access Roads

All roads and footpaths, with the exception of national and District roads, are classified as Community access roads under the road classification system in Uganda. In the DDP, a total of 29 roads are listed as important community access roads with a total length of 717.4km. They include existing roads and proposed roads. It is said that this list was prepared on the basis of the Sub-county Development Plan. However, some of these roads are not mentioned in the Sub-county Development Plan.

Table 9.5.5 Important Community Access Roads in Former Amuru District

Road Name	Proposed Code	Length (km)	Activity Required	Location (Sub-county)
Leb Ngec - Got Okwara – Wadelai Landing Site	7135	60	Rehabilitation	Alero
Leb Ngec - Langwen – Bwobo Landing Site	7136	60	Rehabilitation	Alero
Latoro - Kulu Anaka - Aswa - Langwen	7137	20	Rehabilitation	Purongo, Alero
Oyam - Lii	7138	46	Routine maintenance	Apac, Koch Goma
Odur - Adjumani	7139	28.4	Routine maintenance	Atiak, Adjumani
Indriani - Pakelle	7140	17	Routine maintenance	Pabbo, Adjumani
Pabbo - Olamnyungu -Rhino Camp	7141	196	Routine maintenance	Pabbo, Adjumani
Amar - Agung	7142	20	Rehabilitation	Koch Goma, Anaka
Omee 1 - Layima - Omee 2	7143	20	Rehabilitation	Amuru
Kaladima - Guruguru -Maro Awobi - Pabbo	7144	18	Rehabilitation	Lamogi, Pabbo
Guruguru - Otici	7145	10	Rehabilitation	Lamogi, Pabbo
Alero - Kinene -Lulyango	7148	18	Rehabilitation	Alero
Pabbo - Atiabar	7149	12	Routine	Pabbo
Koch Goma -Laminlatoo - Ayago	7150	20	Routine maintenance	Koch Goma, Anaka
Ayago - Lamoki-Anaka	7151	27	Routine maintenance	Koch Goma, Anaka
Okwir - Orum	7152	12	Routine maintenance	Bobi, Koch Goma
Oburduka - Atiabar	7153	7	Routine maintenance	Pabbo
Olwal - Gira Gira	7154	12	Rehabilitation	Lamogi
Keyo - Gang Kal Lamogi	7155	8	Rehabilitation	Lamogi
Olwal - Coorom	7156	10	Rehabilitation	Lamogi
Parabongo - Ting Kidi	7157	9	Rehabilitation	Lamogi
Palukere - Miyalayap - Okidi	7159	15	Rehabilitation	Atiak
Tung Jubi - Lii - Okwoto	7160	17	Rehabilitation	Koch Goma
Alero - Cuku - Got Moko - Kinene	7161	8	Rehabilitation	Alero
Aparanga - Lodi	7162	8	Rehabilitation	Purongo
Olwiyo - Atwomo	7163	10	Rehabilitation	Purongo
Oruka - Aparanga	7164	8	Rehabilitation	Purongo
Aparanga - Got Ngur	7165	10	Rehabilitation	Purongo
Purongo - Got Ngur	7166	11	Rehabilitation	Purongo
TOTAL		717.4		

Source: District Development Plan (DDP) of Former Amuru District (2009/10-2011/12)

(5) District Plan for 2009/10

The district plans for 2009/10 are:

- Routine maintenance of feeder roads on 300km out of 326km which are in maintainable condition.

- Periodic maintenance of feeder roads on 70km out of 123km which need major intervention as rehabilitation or periodic maintenance.
- Opening up of at least 150km of community access roads (CARs) out of 200km which are planned to be transitioned into district roads.
- Rehabilitation of 115km of district feeder roads. And upgrading and/or rehabilitation and construction of structural road bottlenecks on the following roads. (Refer to the following Table)

Table 9.5.6 Roads to be Upgraded and/or Rehabilitated 09/10

S/N	Road Name	Activity	Length (km)	Location (Sub County)	Source of Funds
1	Otwee-Mutema-Okungedi	Upgrading Rehabilitation	17	Amuru Town Council, Amuru	GoU (PRDP)
2	Koch Goma – Lii – Pajok II	Construction to eliminate bottlenecks on Lii & Adbuk streams	36	Koch Goma	GoU (LDG III)
3	Alero – Goma Road	Rehabilitation	22	Alero, Koch Goma	GoU (PAF III)
4	Otwee – Aswa – Anaka	Upgrading Rehabilitation	40	Amuru, Alero, Anaka	GoJ/JICA
5	Otwee – Aswa – Anaka	Bridge construction over Aswa River	N/A	Alero	GoJ/JICA
6	Otwee – Aswa – Lolim	Rehabilitation of bridge over Aswa River	N/A	Alero	GoJ/JICA
	TOTAL		115		

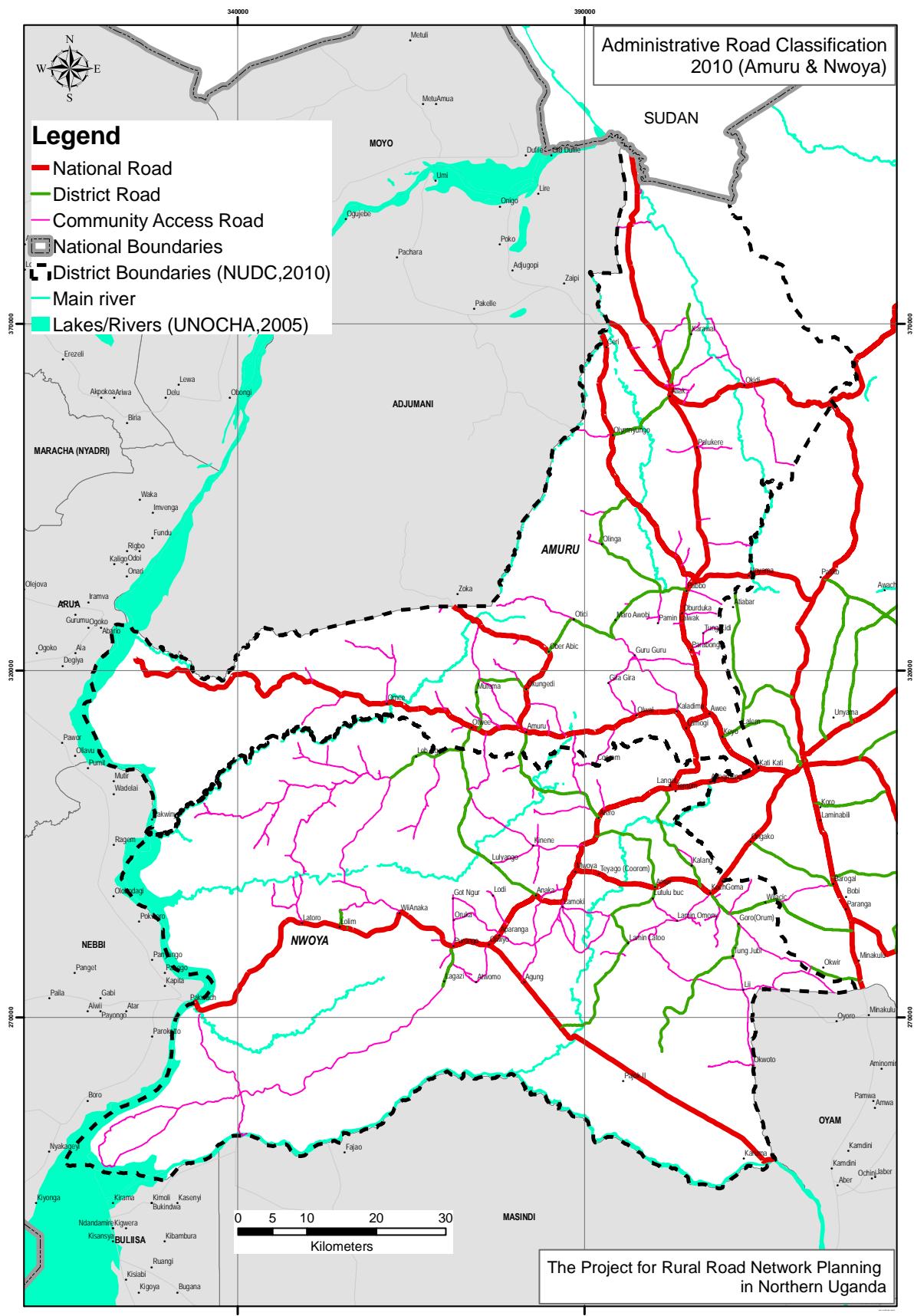
Source: District Development Plan (DDP) of Former Amuru District (2009/10-2011/12)

- Up to 236.8km of community roads were rehabilitated in the last season. However, they are not being maintained due to inadequate funding.
- The following road openings and/or rehabilitation are unfunded priorities in the road sector:

Table 9.5.7 Unfunded Priorities in the Road Sector

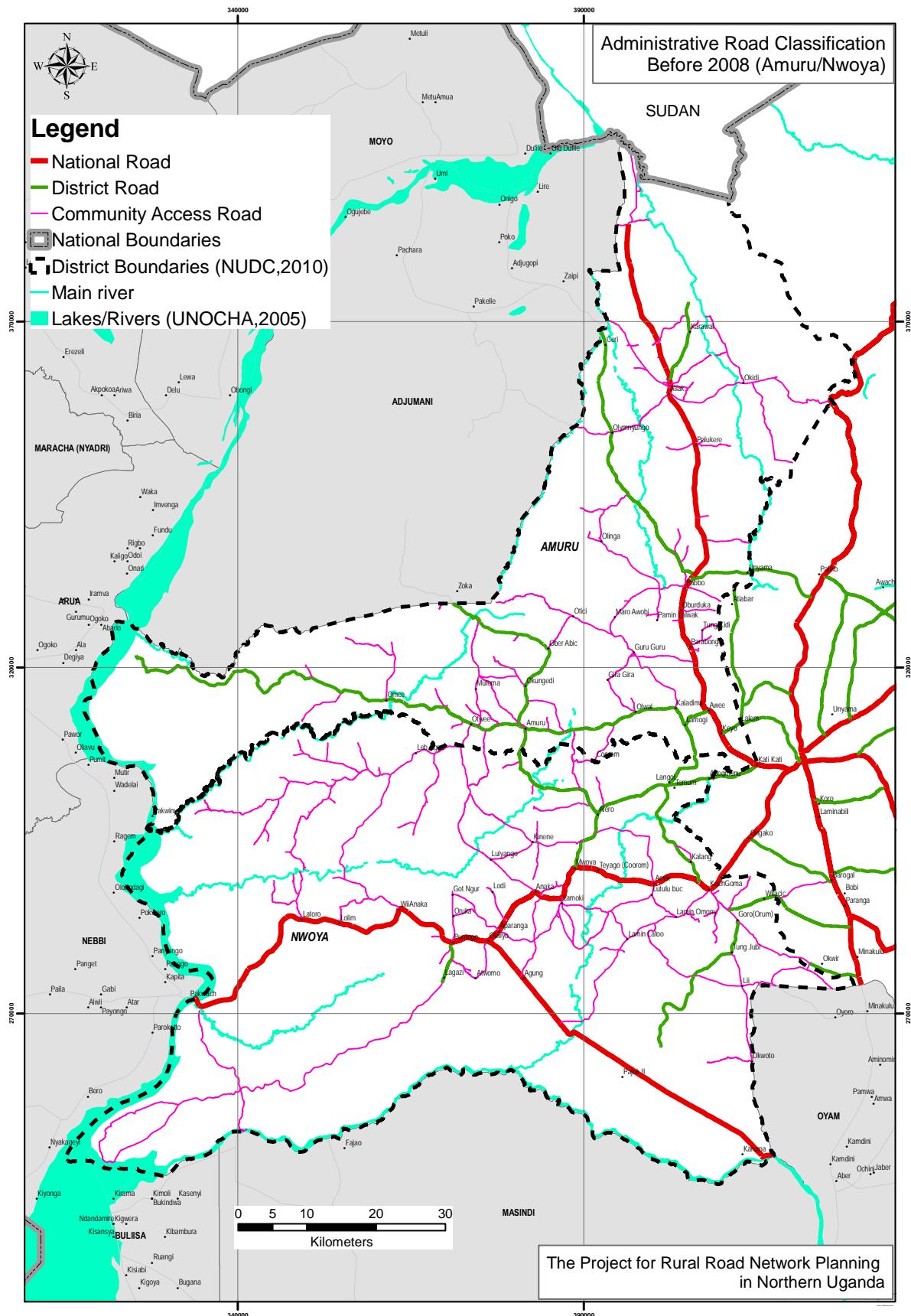
S/N	Road Name	Activity	Length (km)	Locations (Sub County)	Source of Funds
1	Otwee - Aswa - Lolim	Rehabilitation	51	Amuru, Alero, Purongo	Unfunded priority
2	Ober Abic - Otici - Olinga - Pabbo	Upgrading, rehabilitation	48	Amuru, Lamogi, Pabbo	Unfunded priority
3	Olinga - Olamnyungu - Ayugi - Atiak	Upgrading, rehabilitation	45	Pabbo, Atiak	Unfunded priority
4	Atiak - Karawal - Gunya - Bibia	Upgrading, rehabilitation	25	Atiak	Unfunded priority
5	Olinga - Olamnyungu - Ayugi - Atiak	Construction of multiple span bridge over river Ayugi	-	Pabbo, Atiak	Unfunded priority
6	Otwee - Got Okwara - Wadelai Landing Site	Opening	60	Alero	Unfunded priority
7	Leb Ngec - Langwen - Bwobo Fishing Village	Opening	60	Alero	Unfunded priority
8	Latoro - Aswa - Langwen	Road opening, bridge construction	20	Purongo, Alero	Unfunded priority
9	Omee - Kololo - Rhino Camp road	Rehabilitation	60	Amuru	Unfunded priority
	TOTAL		200		

Source: District Development Plan (DDP) of Former Amuru District (2009/10-2011/12)



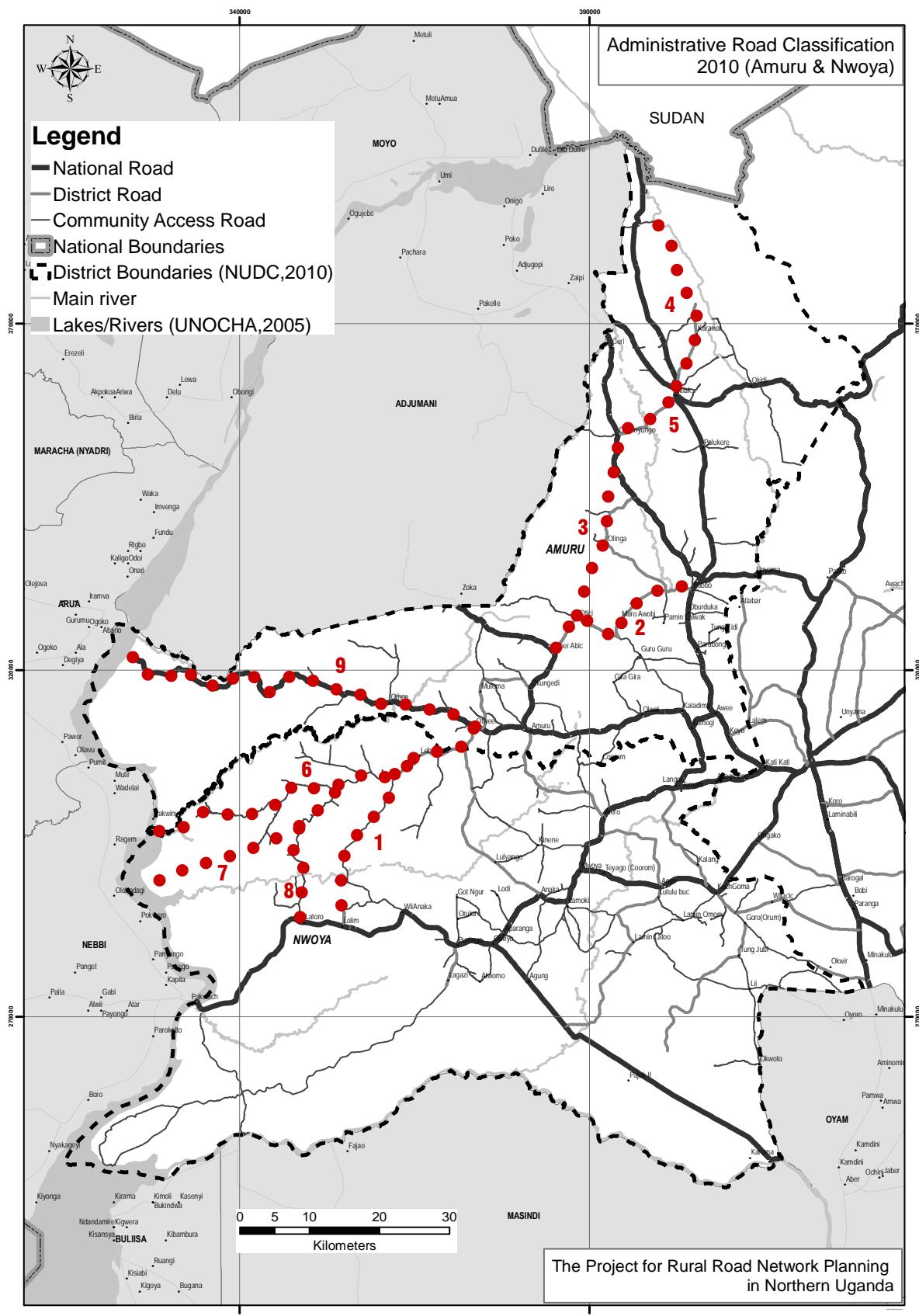
Source: Former Amuru District Development Plan (2009/10-2011/12), Mapped by JICA Study Team

Figure 9.5.1 Road Network in Former Amuru District after Reclassification in January 2009



Source: Former Amuru District Development Plan (2009/10-2011/12), Mapped by JICA Study Team

Figure 9.5.2 Road Network in Former Amuru District before Reclassification in January 2009



Source: Former Amuru District Development Plan (2009/10-2011/12), Mapped by JICA Study Team

Figure 9.5.3 Priority Roads (Unfunded) in Former Amuru District Development Plan

9.6 Sub-County Development Plans

Apart from the DDP, a sub-county development plan is published annually from each of 8 sub-counties in former Amuru District which contains a 3 year plan for the institutional, financial and infrastructural contexts. Since the sub-county has the responsibility to maintain the community access roads, the list of priority roads are shown in the Sub-county development plan. However these are not exactly harmonised with the DDP. Besides, as the format and description are not integrated, the level of information varies at each sub-county.

The prioritised road list and the sub-county map indicating the locations of prioritised roads proposed by each sub-county are shown as follows. This information is based on the Sub-county Development Plan for 2009-2011 and interviews conducted with the sub-county chief and local community chairperson who prepared the development plan.

(1) Atiak Sub-county

Atiak Sub-county is located in the north of Amuru District and is adjacent to Sudan on its northern side. The land is spilt by Unyama River which runs through in a north-south direction. The national road from Gulu to Sudan passes parallel to the river. Two major villages, Atiak and Bibia, are also located along this road. Another major community access road passes through the sub-county which connects to Kitgum and Ajumani Districts.

Four sections of road opening/improvement are proposed in the Atiak Sub-county development plan. These are proposed because the sub-county is keen to improve the accessibility from the resident areas to social infrastructure such as the market, health centre, administrative office and schools for children. The road to the eastern side of Unyama River is also required to be opened up so as to develop the agricultural potential area.

Table 9.6.1 Proposed Roads in Atiak Sub-county

Work type	Location	Distance(km)	
Opening up community roads	Okidi to Ogom lawino to Sudan Border	-	1
	Attiak Centre to Karawal via Unyama River then to Ogom	-	2
	Gunya to Akonongoti to Kaladima to Lego	-	3
Grading of the existing path	Gunya to Juba road	-	4

Source: Sub-county Development Plan of Atiak Sub-county, 2009/10

(2) Pabbo Sub-county

Pabbo Sub-county is dominated by a hilly landscape in its western area. As such, most of the residents live in the east and north. Ayugi River flows in the middle of the sub-county land. Pabbo is one of the major trading centres in Amuru District. In addition to Gulu-Nimule road, the two national roads, Pabbo-Unyama and Pabbo-Ceri, which were upgraded in January 2009, traverse the sub-county. Note that the Pabbo insisted that the east of Alero Sub-county is part of Pabbo Sub-county's land, but the appeal is yet to receive administrative approval.

The proposed roads in Pabbo are chosen from each parish. Most of the roads are proposed to improve the accessibility from the national roads to small villages which currently suffer from a poor road network. The roads which will contribute to the development of the eastern forest area are also proposed.

Table 9.6.2 Proposed Roads in Pabbo Sub-county

Work type	Location	Distance (km)	
Road construction	Labala primary school to River Nile	100km	1
	Labala Parish H/Q to Lapul		2
	Jengari to Alero woromo via Kony Panyo	8km	3
	Olamnyungu to Ceri stream	15km	4
	Oobo to Olamnyungu	15km	5
	Otoro Kume to Apaa	30km	6
	Gweng diya to Owinyjulu	10km	7
	Aacakara to Apaka	12km	8
	Agole primary school to Lumule	3km	9
	Streets in Pabbo Town Board	15km	10
	Baro to Lam to Payibi to Pawel Lalem	5km	11
	Pericu to Kelbedi	5km	12
	Abera to Olinga	8km	13
	Obiya ngic to Oceto aka	6km	14

Source: Sub-county Development Plan of Pabbo Sub-county, 2009/10

(3) Lamogi Sub-county

Lamogi Sub-county is the smallest in Amuru District. As it is located between the centres of Gulu and Amuru Districts, the road network is relatively developed. Three road openings are proposed in the Sub-county development plan. These roads will supplement the current network and provide better conditioned roads to the remote villages Gira Gira and Ting Kidi.

Table 9.6.3 Proposed Roads in Lamogi Sub-county

Work type	Location	Distance (km)	
Road Opening	Parabong to Guru Guru to Gira Gira	23km	1
	Olwal to Gira Gira	-	2
	Te Lwak to Ting Kidi to Atiaba	-	3

Source: Sub-county Development Plan of Lamogi Sub-county, 2009/10

(4) Anaka Sub-county

The second smallest Sub-county is Anaka which is surrounded by the Alero, Koch Goma and Purongo Sub-counties. Three national roads meet up and the district road will connect Anaka centre to the Amuru District Centre after the pilot project in this study. There are some roads in poor condition; however, the road network covers the entire Sub-county. Three existing roads are mentioned in the development plan to strengthen the road network and upgrade the road condition.

Table 9.6.4 Proposed Roads in Anaka Sub-county

Work type	Location	Distance (km)	
Opening up community roads	Anaka Kal Badati to Lulyango	-	1
	Pudyek to Bongtiko	-	2
	Laliya to Wii Polo	-	3

Source: Sub-county Development Plan of Anaka Sub-county, 2009/10

(5) Amuru Sub-county

The centre of Amuru District, Otwee, is located in Amuru Sub-county. Omee River traverses the sub-county. The land on the eastern side of the river still remains an undeveloped area. It was released from the green reserved area in 1972. There are 2 routes of national roads in Amuru Sub-county, Gulu to Rhino camp at Albert Nile and Amuru to Adjumani via Ober Abic. Two district roads passing across Aswa River will be improved upon under the pilot project.

Amuru Sub-county proposed the opening up of roads around Amuru centre. However, there were no roads proposed for improvement on the western side of Omee River.

Table 9.6.5 Proposed Roads in Amuru Sub-county

Work type	Location	Distance (km)	
Road Opening	Aswa to Daga to Alero/Amuru Road	-	1
	Acut Omer to Daga	8km	2
	Okungeddi to Gengari	9km	3
	Omee II to Mutema to Amuru trading centre	-	4
	Otwee to Mutema to Okunigedi	-	5
	Oberabic to Octi	-	6
	Omee II to Layima	8km	7
	Layima to Apaa	-	8

Source: Sub-county Development Plan of Amuru Sub-county, 2009/10

(6) Alero Sub-county

Alero Sub-county is wedged between Omee and Aswa Rivers running north and south of it respectively. There is only one national road from Gulu to Anaka going through its eastern side while three district roads crossing over the Aswa River penetrate the Sub-county.

There are a total of 11 sections of road proposed in the development plan to improve the accessibility between the villages and trading centres and schools. No road in the western side of sub-county was proposed for improvement.

Table 9.6.6 Proposed Roads in Alero Sub-county

Work type	Location	Distance (km)	
Opening up community road	Lalar to Coorom	12km	1
	Lalar village to Ayago	5km	2
	Penymeni to Ceke	10km	3
	Lulyango to Anaka Sub-county	5km	4
	Alero market to Got moko	11km	5
	Kal Parish to Bidin to Bwobonam Parish	12km	6
	Kinene to Lungulu	13km	7
	Kinene to Got Moko	5km	8
	Ayago Kawere to Goma	8km	9
	Cere to Paopenya to toci	4km	10
	Panyabono to Koch Goma	20km	11

Source: Sub-county Development Plan of Alero Sub-county, 2009/10

(7) Koch Goma Sub-county

Koch Goma Sub-county is located in the south-eastern part of Amuru District. The south part of the sub-county is designated as the Murchison Falls National Park which is preserved by Uganda Wildlife Agency (UWA). The two national roads pass through it in the north and south.

Five road openings are proposed in the Sub-county development plan. In addition to the road to improve the accessibility between the villages, the roads to the southern area are also proposed to exploit the undeveloped area.

Table 9.6.7 Proposed Roads in Koch Goma Sub-county

Work type	Location	Distance (km)
Opening up community road	Lamin Omny to Lutulu buc	- 1
	Goro store to corner ranger	- 2
	Oterem to Busia	- 3
	Teyago to Alero	- 4
	Amar to Kalang Ongako	- 5

Source: Sub-county Development Plan of Koch Goma Sub-county, 2009/10

(8) Purongo Sub-county

Purongo Sub-county is surrounded by Albert Nile and Victoria Nile and most of the land is covered by Murchison Falls National Park. Pakwach Road runs through it and most people live along this road. The road from Purongo village to the entrance of the National Park is designated as a district road.

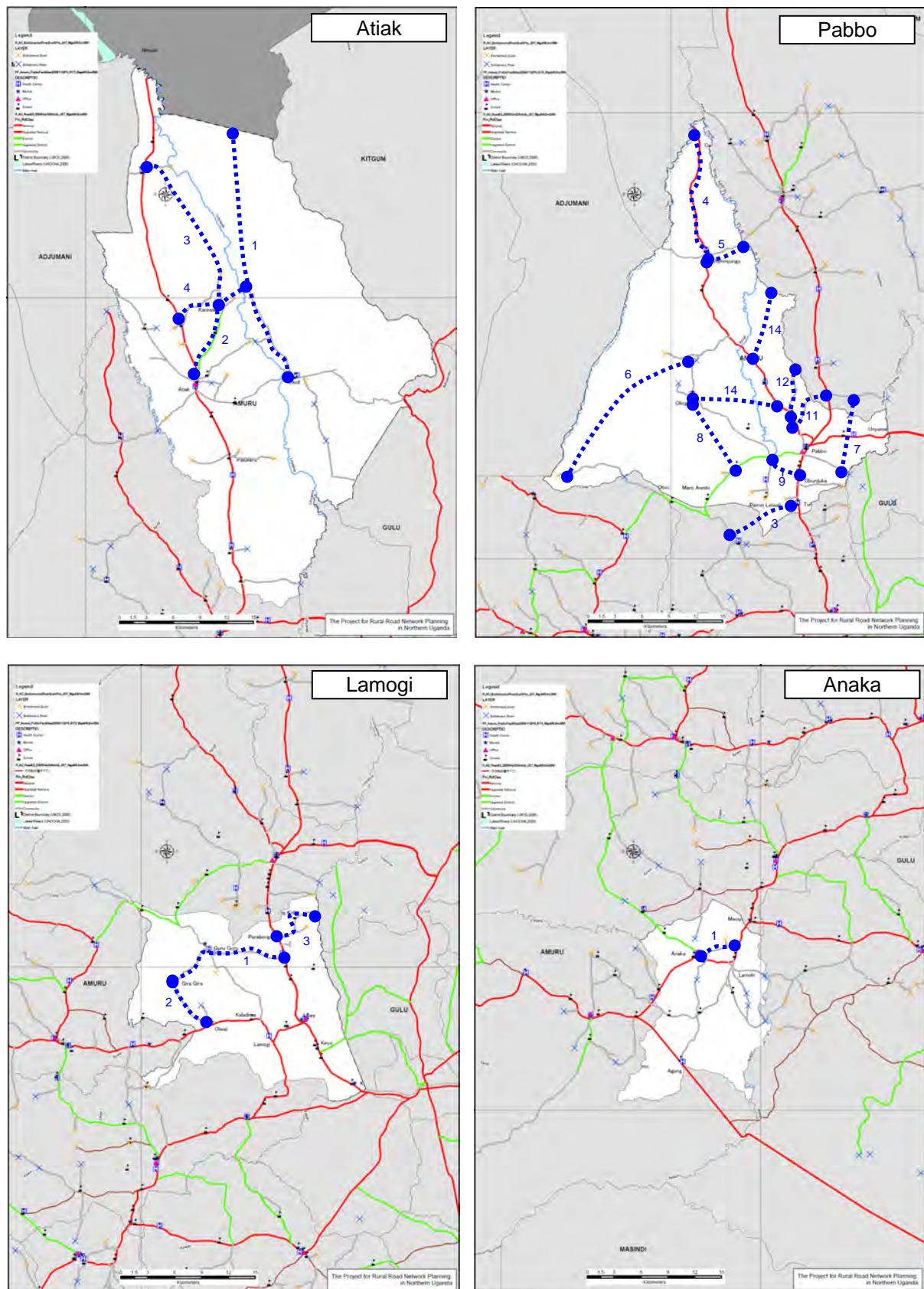
The Sub-county proposed the opening-up of roads located around the sub-county centre. The construction of bridges on Aswa River will improve access from Purongo to Alero and Amuru Sub-counties.

Table 9.6.8 Proposed Roads in Purongo Sub-county

Work type	Location	Distance (km)
Opening up community roads	Olwiyo trading centre to Patira Primary School	4km 1
	Aparangaa to Got Nguu	12km 2
	Wii Anaka to Alokiwinyo Paminolango	25km 3
Construction of bridges	At Aswa river, Paminolango	- 4
	At Aswa river connecting Purongo Sub-county and Amuru district H/Q	- 5
	At Ayano and Tangi Ajwayo Pabi Parish	- 6

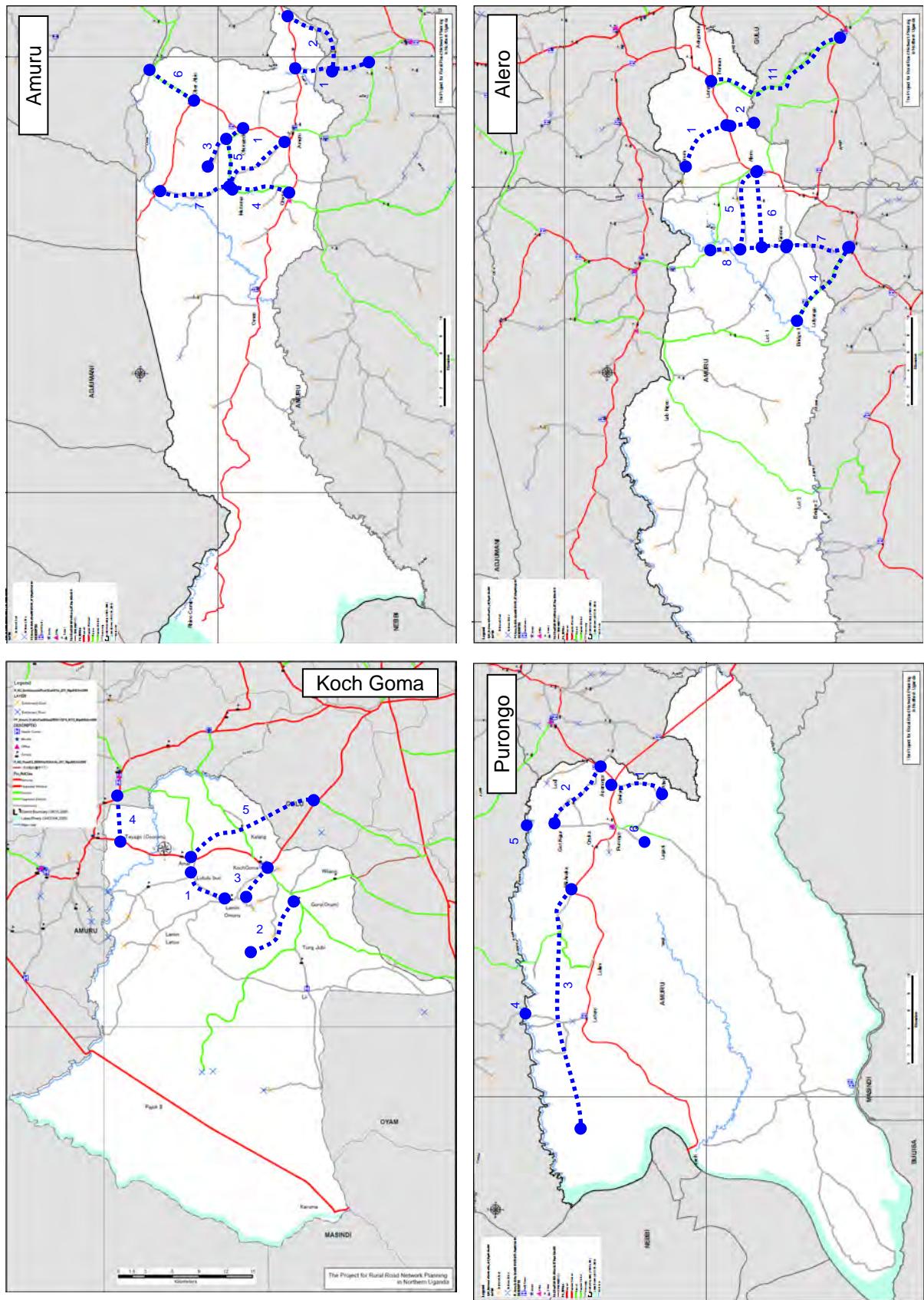
Source: Sub-county Development Plan of Purongo Sub-county, 2009/10

Figure 9.6.1 shows the proposed roads in each sub-county. Note that only roads which could be identified during the site visits and interviews are plotted.



Source: Sub-county Development Plans, 2009/10, Mapped by JICA Study Team

Figure 9.6.1 Proposed Road Developments by Sub-county (Atiak, Pabbo, Lamogi, Anaka)



Source: Sub-county Development Plans, 2009/10, Mapped by JICA Study Team

Figure 9.6.2 Proposed Road Developments by Sub-county (Amuru, Alero, Koch Goma, Purongo)