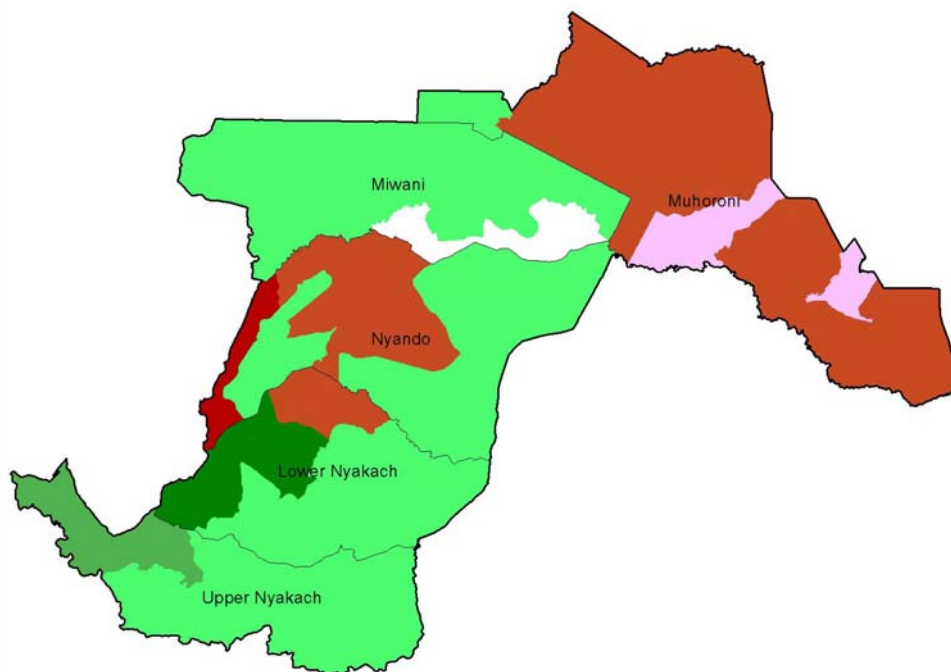


FOOD SECURITY DISTRICT PROFILE

Nyando District, Nyanza Province

Nyando District Livelihood Zones



Scale: 1:220 000
Projection: Geographic
Prepared by: FAO/TCEO
Date: May, 2006



This map does not imply official UN endorsement.

Food Security Statistics, Nyando District	
Total Area (km ²)	1,168.4
Arable land (%)	99
Population	2005
Population (,000s)	357.4
Population density	285
Population growth rate (%)	3.4
Food	2005
Food production (MT)	33,892
Food Demand (MT)	51,465
Food Aid (MT)	-
Livestock Production	2005
Cattle (, 000s)	147.8
Shoats (, 000s)	240.1
Income Sources and Unemployment	
Agriculture (crops and livestock) (%)	52
Wage employment (%)	25
Rural self-employment (%)	10
Urban-self employment (%)	10
Others	3
Unemployment rate (%)	11.0
Average monthly household income (Kshs)	-
Poverty	
Overall Headcount (%)	61
Rural (Headcount) %	61 (22)
Urban (Headcount) %	72 (31)
Access to Water and Health Facilities	
Number of water facilities	444
Households with access to potable water source (%)	32.3
Distance to the nearest water source (Kms)	1
Number of public health facilities	36
Households with access to health facilities (%)	-
Distance to the nearest health facility (Kms)	5
Literacy levels (%)	M-91,F-77
Nutritional and Health	
Wasting, less than -2 sd (%)	31.1
Stunting, less than -2 sd (%)	2.3
Underweight	15.6
Infant mortality	89/1000
Under-five mortality	212
Life expectancy (years)	49
Crude death rate	15/1000
Infrastructure	No Status
Road networks	poor
Telephone (Booths)	73 fair
Postal services	fair
Energy supply	poor
Financial institutions	1 poor

Physical and Agro-Ecological Condition: Nyando is among the twelve districts that make up the Nyanza province. It has a geographical coverage of 1,168.4 km² and is divided into five administrative divisions: Upper Nyakach, Lower Nyakach, Nyando, Miwani and Muhoroni¹. The district lies in the eastern part of a large lowland surrounding the Nyanza Gulf, much of it being in Kano Plains. The topography can be generally classified into three land formations: the Nandi Hills, the Nyabondo Plateau, and the Kano Plains which are sandwiched between the hills. The Kano Plains comprise of predominantly black cotton clay soils with moderate fertility and poor drainage. The rest of the district has sandy clay loam soils derived from igneous rocks.

Altitude rises from 1,100m along the Kano Plain to 1,800m above sea level in Nyabondo Plateau. Mean annual precipitation lies between 600-1,630mm. However, the rains are bimodal and exhibit wide variation in distribution. The district has only one gazetted forest, Koguta, covering a mere 3.2 km². There is a small shoreline (11 kms) to the southwest bordering Lake Victoria, where several beaches are found and fishing carried out. The soils and climatic conditions of the district are ideal for sugarcane cultivation especially in Muhoroni, Miwani and parts of Nyando division while the swampy areas along river Awach and Nyando are appropriate for rice growing. The Kano Plain with its black cotton soils is most suited for cotton production. The relatively high areas of Nandi Hills and Nyabondo Plateau provide a good environment for dairy and coffee production.

Nyando district is prone to flooding (Kano Plains) and water overflow that has caused extensive erosion in Lower Nyakach and Miwani divisions resulting in huge gulleys such as Katuk Ondejo in Lower Nyakach². Most of the hilltops in the region are bare and forest excision for charcoal burning is extensive.

Population: The population of Nyando district is approximately 357,393 (2005 projection), with about 75% of the people residing in the rural areas³. The labour force comprises nearly 50% of the population while the ratio of males to females is 100:104⁴. The youth are only 21% of the population. The settlement patterns are mainly determined by the potential of the area; Upper Nyakach division has the highest population density with nearly 368 persons per km², while Muhoroni is the least populous with about 190 individuals per km². Muhoroni division is a high potential sugar-belt region, and is also the largest division in the district, covering an area of 334.8 km². The average density of the district is 284.6 people per km² with an annual growth rate of 3.4%⁵.

Water and Infrastructure: Nyando has two main rivers namely Sondu Miriu and Nyando. River Nyando drains from the Nandi hills, where relatively high rainfall is received, to Lake Victoria, through the Kano Plains where it causes flooding along its banks. Another flood prone river is the seasonal and much smaller Awach River. Under normal circumstances, the rivers provide water for rice irrigation. On the other hand, Sondu River provides water for running the Sondu Miriu Hydro-Electric Power Station, currently under construction in Nyakach. The power station is expected to generate about 60 megawatts of electricity. Still, the sources are capable of supporting 7,400 ha of small-scale irrigation systems.

The district has a small shoreline of about 11 kms bordering Lake Victoria. Other significant surface water sources are dams, ponds and streams. The underground water resources are fair and several wells, boreholes and springs are used by the communities. However, adequate access to potable water points is a major problem with only a third of households in the district having access within a kilometre, 50% of them drawing water from piped outlets⁶. Frequent flooding and sharing of ponds with livestock causes contamination of water bodies, resulting in epidemics of water borne diseases in the region.

The district has a relatively poor road network. Most of the divisions have poor roads that have limited access during rainy seasons while some areas have no road connections at all. An estimated 73% of the road length in the district is made up of earth roads⁷. Transportation, particularly of agricultural goods to markets and factories, is severely hampered by poor roads and the associated high costs. At the same time, power supply is inadequate and has not encouraged development of small-scale industries. Only a few of the trading centres in Miwani, Chemelil and Muhoroni divisions have electricity connection. Nearly 90% of the households rely on fuel wood and charcoal to meet their daily energy needs⁸. Use of solar energy is yet gain acceptance.

The main industries in the district are the sugar factories including Chemelil and Muhoroni, and a few rice mills. The communication sector is fairly developed with mobile coverage of about 30%. The financial sector is weak and underdeveloped and only one bank is operational in the whole district.

Economy: Agriculture is the key livelihood activity, employing 60% of the total population and supplying over 52% of household earnings⁹. Cropping patterns are dominated by production of subsistence crops such as maize, cassava, sorghum and sweet potatoes whereas major cash crops are rice, sugarcane, cotton and coffee. Sugarcane ranks as the most important cash crop. Nevertheless, the output from the sector

has been low due to poor use of modern agricultural technology, lack of proper storage, erratic and unreliable rainfall, lack of credit facilities, high costs of seed and other inputs, and poor road network¹⁰.

Livestock production is practised in the district, with Zebu Cattle being the main breed reared in the district. Small stock such as goats, sheep and poultry are also kept. The total stock of cattle, sheep and goats in the district was estimated at 388,000 animals in 2005¹¹. Some members of the Luo community practise fishing along river Nyando, Sondu and in Lake Victoria. Poor breeds, low productivity and inadequate control of livestock diseases, as well as lack of water for animal use and poor fishing methods are the most important constraints experienced in the sector¹².

The overall poverty incidence in the district is approximately 61%¹³. Poverty is less prevalent in the rural areas at 61% as compared to urban areas where it stands at 72%¹⁴. Nyando, Upper Nyakach and Miwani divisions have the highest counts of poor people. Poor agricultural technology, lack of proper storage, poor and inaccessible roads, frequent floods that disrupt economic activities, problems with the sugar, rice, cotton and fish industries, lack of title deeds, poor water and sanitation systems, the impact of HIV/AIDS (with 29.4% infection rate), low accessibility to health services, and gender disparity are some of the main factors perpetuating poverty in the district¹⁵. Lack of alternative income generating opportunities has also culminated in high rates of unemployment (11%)¹⁶.

Food Security Situation: Nyando district is a food deficit zone despite being considered 99% cultivable. This is partly due to unreliable rainfall. The district produced 33,892 MT¹⁷ of cereals in 2005 as compared to its annual cereal demand of 51,465 MT¹⁸. This means own production can only take the district for seven months and hence the reliance on inter district trade with neighbouring high potential districts of Nandi, Trans Nzoia and other districts to meet the deficit. For the households in the district, this means reliance on the markets for a significant share of food eaten.

Over 60% of cereals consumed at household level are sourced from markets¹⁹. Similarly, about 64% of beans consumed by the households are also obtained from the markets, in the district's mixed farming/fishing zone and mixed farming/mat making livelihood zones²⁰. Household income is therefore a crucial component determining accessibility to food.

Households in the cash-cropping zone derive a larger share of their earnings from sugarcane and rice. The problems experienced in the sugar sector such as delayed payments and closure of the Miwani Sugar

Company, have impacted negatively on the food access status. While the district has mostly black cotton soils suitable for production of cotton, the performance of the industry has been dismal and has forced farmers into production of subsistence crops, which offer little in terms of income generation. The collapse of cotton industry has therefore adversely affected food security in the district. Apart from some households who receive their incomes from livestock, those under mixed farming zone/mat making lack profitable alternative income generating activities. Others such as those living in the casual labour zone, deriving a large share (35%) of their incomes from formal wages²¹, are predisposed to seasonal fluctuations in income. This results in transitory food insecurity.

According to the PRSPs, food insecurity in the district is also attributed to poor agricultural technology, lack of proper storage, erratic and unreliable rainfall leading to crop failures, increased livestock diseases and poor veterinary facilities, high cost of seed and other agricultural inputs, poor road

network and lack of credit facilities. Occurrence of floods and lack of adequate access to clean water sources have adversely affected agricultural production in the district. The water points dry up during the dry seasons forcing people and livestock to travel long distances to access water.

The condition is further worsened by occurrence of floods that result in pollution of water sources leading to frequent outbreaks of waterborne diseases. While the health facilities are many (36), adequate personnel and drugs are lacking to effectively serve the population²². An assessment of the nutritional status of under-five children in the province in 2003 revealed the proportion of stunted, wasted and underweight under-five children to be 31.1%, 2.3% and 15.6%, respectively²³. Nyando District recorded the second highest under-five mortality rates in the country. About 212/1000²⁴ of children in this age category die before their fifth birthday, whereas life expectancy is 49 years²⁵ as compared to the national average of 55 years²⁶.

National Agricultural and Livestock Extension Programme (NALEP, district wide)	MoA, MoL&FD, SIDA funding
Lake Victoria Environment Programme (LVEMP)	MoE,
Cotton Production Revitalization (district wide)	MoA, IDCCS (InterDiocesan Christian Community Services)
Promotion of Smallholder Community Based Rice Production (Kano Plains)	MoA, ATIRI,
Sugarcane production and extension (Miwani, Muhoroni and Chemelil divisions)	Chemelil Sugar Company, Muhoroni Sugar Co, Outgrowers Associations
Promotion of Individual Irrigation Systems	MoA,
Disease and Parasite Control (district wide)	DVO
Artificial Insemination (district wide)	DVO
Promotion of Livestock Production	MoL&FD, Christian Childrens Fund (CCF).
Nyando Flood Control (Nyando division)	MENR
Rural Water Supply	MENR
Rural Electrification Programme (district wide)	MoE, KPLC, Spanish Government, JICA
Entrepreneurship training and joint Loan Schemes	Ministry of Trade and Industry
Malaria prevention and control	MoH
HIV/AIDS/TB Prevention and management	MoH, DACC, CBOs
Expanded Programme on Immunization	MoH
Community Based Nutrition	DSDO,
HIV/AIDS awareness campaigns	MoH, Muhoroni AIDS Awareness and Counselling Services, Home Based Care in Miwani
Establishment of tree nurseries	MoF
Afforestation of Koguta Forest (Upper Nyakach division)	MoE, ICRAF

Main Investment Priorities

Productive sector

- Crop development: promote use of appropriate technology; promote low cost agricultural inputs; facilitate access to credit; capacity building for proper storage facilities at farm level; revamp the cotton industry and Miwani Sugar Company; and improve access to markets by improving infrastructure.
- Livestock development: promote use of improved animal breeds; strengthen disease control measures; construction and rehabilitation of cattle dips; development of dams and borehole for domestic and animal use.
- Fisheries: facilitate access to credit to enable farmers acquire modern fishing methods.
- Irrigation development: promote small-scale irrigation schemes to realize the capacity of 7,400 ha; reinforce canal irrigation in Nyando, Awach and Sondu rivers; building dykes along the rivers to curb flooding; irrigation using water from Lake Victoria.

Infrastructure development

- Roads: upgrade and carry out proper maintenance of roads to improve accessibility to markets.
- Communication: expand communication facilities to ensure improved access to market information.
- Rural water supply: improve water facilities to improve access to clean water facilities; promote construction of V.I.P latrines among the population.

Community Development

- Health: Stock the existing facilities with adequate supply of drugs and personnel; expand health facilities to bring them closer to people; carry out prevention and control of diseases such as malaria and HIV/AIDS that are rampant in the district.
- Nutrition: establish community-based nutrition programmes to cater for the vulnerable in the society; carry out nutrition awareness among the communities.
- Environment: carry out reforestation of eroded areas such as Katuk Ondoje in Lower Nyakach; and on the hill tops; promote agro-forestry land use practice in the area.

Notes and References

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