Livestock and Fisheries Policies for Food Security and Trade in a Changing Climate

From 30 August to 3 September 2010, 232 participants from 22 different countries—from within Africa and beyond—assembled in Windhoek, Namibia for the 10th Annual Food Agriculture and Natural Resources Policy Analysis Network (FANRPAN) Food Security Policy Dialogue, which addressed the theme of “Livestock and Fisheries Policies for Food Security and Trade in a Changing Climate”. Participants represented government ministries of agriculture, fisheries and natural resources, regional economic communities, research institutes, farmers’ organisations, development partners, the private sector, media and NGOs.

The regional policy dialogue was organised with the FANRPAN national node for Namibia, hosted by the Namibian Economic Policy Research Unit (NEPRU). The Honourable Minister of Agriculture, Water and Forestry, John Mutorwa, welcomed delegates and set the tone for the Regional Dialogue. The dialogue was officially opened by the Deputy Minister of Fisheries and Marine Resources, Honourable Mr Kilus Nguvauva, of the Republic of Namibia and Dr Samson Mundia on behalf of the chairperson of FANRPAN and Secretary-General of COMESA, Honourable Mr Sindiso Ngwenya.

Namibia is located in the south west of the African continent, bordering Angola and Zambia to the north, Botswana to the East and South Africa to the south. This water-scarce country spanning 824,000 square kilometres and with a population of 2.1 million people has an average rainfall of 600-700 mm.

Namibia has vast mineral resources, particularly diamonds and uranium. However, owing to unequal wealth distribution, 27.6% of households are classified as poor and 13.8% as severely poor. Namibia also faces the challenges of a high HIV/AIDS epidemic as well as a high unemployment rate.

The FANRPAN Regional Dialogue held in Namibia in 2010 focused on Agriculture, Fisheries, Water, Livelihoods and Climate Change and how it impacts on the economy of Namibia.
Agriculture:
Agriculture in Namibia is constrained by:
- Low and highly variable rainfall
- Poor soil quality

Namibia’s agricultural sector is divided into:
- A commercial farming sector with free-hold land titles, mainly involved in extensive livestock farming and rain-fed and irrigated crop production- approximately 44% of the total land area and accommodating 10% of the population
- A subsistence sector based on livestock and rain-fed crop farming with no title deeds - approximately 41% of the total land area and accommodating 60% of the population

The Namibian government has prioritized redressing the inequities of land distribution and is using the principle of the willing seller-willing buyer as a means of addressing this issue. Farm owners wanting to sell their farms have to offer them to the government first.

Livestock Farming:
Beefing up the Meat Industry:
Livestock farming dominated the agricultural sector in Namibia, contributing 3.1% annually to the Gross Domestic Product (GDP) between 1990 and 2009 compared to 2.4% in the crop farming sector. The cattle herd increased from about two million head of cattle- equally distributed between communal and commercial farmers, with a decline in the commercial sector, owing to factors such as bush encroachment following farmers’ exploiting the game farming and tourism industries. However, in communal areas, livestock numbers have grown and this has proved to be a challenge in the light of declining grazing areas owing to an increasing population and illegal fencing of communal grazing areas for private use.

Going with the flow: Milk production
While meat production has dominated the livestock sector, milk production for the domestic market is increasing. The Southern African Customs Union Agreement, of which Namibia is a member, allows for infant industry protection. The pasta and long-life milk industries have benefitted from this scheme, implying that long-life milk imported from outside the country is subject to a levy.

Lambs to the slaughter:
Owing to the arid conditions in Namibia, sheep farming is popular. Goat and sheep farming is wide
spread in the southern regions because of the climatic conditions that limit cattle farming. Until recently, farmers who wanted to export sheep to South African abattoirs, reportedly because of better prices had to prove that they sold six sheep to local abattoirs for every sheep to be sold to South Africa. The government replaced this scheme in July 2010 with an ad valorem export levy that will range between 15%-30%, although livestock producers and abattoirs agreed on an export levy of NAD 40 per head of sheep sold on hoof. Prices for karakul pelts and wool have also developed favourably over the past years, reaching approximately NAD 450 on average per pelt sold and NAD 4.13 per kilogram of wool sold.

Crop farming:
More crop per drop:
Pearl millet and maize are the main crops grown in the communal areas in the north and north east of Namibia. About 277 065 hectares (ha) were cultivated on average over the seven-year period from February 2001 to August 2007. However, the area under cultivation declined over time owing to growing population pressure and illegal fencing. Farming systems are characterised by low productivity. This is due to:
- Mono-cropping
- Improper tillage practices such as disc harrowing
- Poor soil quality
- Micronutrient deficiencies
- High pH
- Lack of proper crop management practices such as timely planting and weeding
- Dry spells or early cessation of rainfall
- Low rainfall utilization efficiency

Furthermore, crop residues are used for feeding animals and thatching houses rather than increas-
ing the soil fertility and preventing soil erosion. Poor harvests are worsened by bird damage.

In order to increase productivity, the Namibian government launched the Dry-land Crop Production Programme for the northern region in 2009. It aims at encouraging and subsidizing:

- the use of tractors for ploughing and trash-ng
- the use of fertilizer and improved seed quality
- the construction of storage silos for grain

However, little attention has been given to Conservation Agriculture. Table grape production has reached 20 000 tonnes and has emerged as a major contributor to agricultural exports and provides employment opportunities to more than 10 000 workers during harvesting times. Government introduced the National Horticulture Development Initiative and the Namibian Horticulture Market Share Promotion at the end of 2004. Since 2006 import permits are required for importing horticultural produce. The Namibian Agronomic Board grants permits once the importer can prove that 30% of the produce sold on the domestic market is sourced locally. Furthermore, the government released its revised Green Scheme Policy in June 2009 with the aim of increasing areas under irrigation from 8 600 ha to 27 000 ha.

**Fuelling cropping:**
Owing to increasing oil prices, many countries, including Namibia, are growing “energy” crops such as Jatropha on a large scale (300 000 ha). This venture can boost production, create employment and generate income.

**Healing herbs:**
Namibia also has vast potential of harvesting indigenous plants that may be used for medicinal purposes. This includes the commercial harvesting of devil’s claw, hoodia, marula, and Kalahari melon seeds. Devil’s claw was the most significant plant since it provided employment for some 2 300 harvesters and generated export earnings of NAD 11 million. Government developed a National Devil’s Claw policy that was approved by Cabinet in July 2010, making it a protected plant, whereby permits are required in order for the plant to be harvested.

Overall, the agricultural sector contributed between five and six per cent of GDP over the years. Meat, fish and other food processing contributed an additional six to seven percent of GDP.

**Agricultural Trade/Exports:**
Namibia’s traditional agricultural exports consists of live animals to South Africa, and of beef, mutton and goat meat to South Africa and the European Union (EU). Only beef from cattle in commercial areas south of the Veterinary Cordon Fence (VCF) and slaughtered in EU-approved abattoirs is granted entry into the EU, which translated to substantial investment in abattoirs that fulfil strict EU norms. Since the cattle roam freely on farmland and no hormones are allowed, the beef fetches high prices on European niche markets and in South Africa. Namibia has also harmonized its animal health policies with EU standards.

The Ministry has introduced various ways of tracing livestock and curbing stock theft such as
branding and ear tags. New ear tags were introduced during the second half of 2010 in the commercial areas with different colours for each of the thirteen regions. Cattle will also receive radio frequency ear tags that contain digital information about the cattle and can be read with a scanner.

The Fishing Sector:
Namibia has a 1 500 km shoreline of nutrient-rich waters due to the upwelling from the Benguela Current. Soon after Independence in 1990 Namibia declared an Exclusive Economic Zone of 200 nautical miles in order to protect its marine resources. Owing to largely uncontrolled fishing before Independence resulting in overfishing, the Namibian government designed a fish resource policy aimed at sustainable harvesting of the marine resources.

The Ministry of Fisheries and Marine Resources determines the existing biomass and decides on the Total Allowable Catch (TAC) for each fish species. Fishing companies are then granted the right to catch a certain quantity of a specified fish species and have to pay a fishing quota. If vessels catch fish species not included in their quotas they have to pay additional fees. The fish species include pilchards, hake, monkfish, horse mackerel, tuna, orange roughly and rock lobster. TACs for all species declined substantially over the past years, but there are signs of recovery at least for pilchards and hake. Due to signs of unsustainable harvesting government and the fishing industry agreed on a three-year moratorium for the deep water species orange roughly. Also to support the recovery of hake, the most valuable fish species, both parties agreed on a moratorium during the month of October since 2008.

Marine aquaculture was regarded as a growth sector but suffered a severe setback in 2008 due to the occurrence of red algae twick within a short space of time. However, the sector is slowly recovering since 2009.

Livelihoods:
Namibia is predominantly rural-based despite continuous urban migration. In 2004 63% of the population resided in rural areas. Namibia’s long-term development strategy, Vision 2030, envisages Namibia to be an urban-based population by 2030. Also 26.6% of the workforce employed in the formal sector was involved in the agricultural sector in 2004 and an additional 3.3% in the fishing sector. The manufacturing sector employed a further 6.2%.

Government remains the single largest employer, providing jobs to some 86 000 employees (22%). The mining sector employed about 2%; hotels and restaurants about 3.4%. Between 2004 and 2008 unemployment increased significantly from 36.7% to 51.2%. About 54% are in the age group 15 to 19 years and 57.4% in the 20-24 year age bracket.

Subsistence farming constitutes the main source of income for 48% of rural households followed by salaries and wages - 25.7%.

Besides social grants, the government provides a non-contributory old age grant for all persons 60 years of age and older. Although this grant is the third most important source of income for rural and urban households, it sustains a larger share of rural (12.1%) than urban (4.9%) households. According to statistics, 27.6% of all households are poor whilst 13.8% are severely poor.
Climate Change:
Namibia is one of the driest countries in southern Africa (mean rainfall ranging between 25mm and 700mm), largely due to the cold Benguela current which brings cold water to the western shore. Namibia is dry for most of the year, except in summer when heating of the continent is greatest.

Namibia has experienced changes in climate, including air temperature and rainfall and this is set to continue. The projections for the period 2045-2065 indicate the following:

- Changes are minimum towards the coast and increase further inland during all seasons
- Minimum expected increases are 1-2 °C and maximum set at 2-3.5 °C
- Maximum projected increases are slightly higher during winter at 2.5 – 4 °C

In terms of rainfall the following appear to be the trend:

- An increase in late summer rainfall over major parts of the country
- A decrease in winter rainfall in the south and west of the country

Impact of climate change on the Namibian water sector:
It has been estimated that for every degree of temperature, evaporation will increase by 5%. Whilst minimum temperatures on the west coast in winter may increase by 1°C - 1.5°C, maximum summer temperatures in the eastern interior in Namibia could go up by as much as 3°C or more. This implies that evaporation may increase by 5-15%. Given the fact that in Namibia, 83% of the rainfall evaporates before or just after reaching the ground, such substantial increases will leave less water available for recharge and storage. Furthermore, increased evaporation may lead to inundation of seasonally flooded wetlands, and may lead to increased salt content of pans and floods. It will also lead to an increase in transpiration from plants, which will mean that they are pumping out more groundwater or using more surface water. Consequently, it will result in a reduction of the size and productivity of many wetlands. Increased temperature will affect run-off, especially if it is accompanied by more limited precipitation. This will translate to changes in desert or savanna landscapes, flora and fauna as well as a reduction of ecosystem services such as water retention, flood attenuation and water purification in Namibia’s wetlands.

Apart from having an adverse impact on Namibia’s water resources, climate change will also impact negatively on:

- Agriculture
- Rain-fed crop production
- Irrigated crop production
- Livestock production

The Award Ceremony:
His Excellency, Hifikepunye Lucas Pohamba, President of Namibia, was awarded the 2010 FANRPAN Food Security Policy Leadership Award. The award was announced in Windhoek, Namibia at the FANRPAN Annual Regional Policy Dialogue.

Hon Abraham Iwambo- Minister of Education, Namibia

President Pohamba and his government have been
instrumental in creating responsible fisheries policies in Namibia which have already been recognized by the United Nations Food and Agricultural Organisation in 2009.

President Pohamba of Namibia said:
“Our industrial fisheries will continue to develop in a sustainable manner. We are keen to capitalize on the gains we have made since independence, to greater benefits of all Namibians. The creation of the Namibian fisheries sector is a success story par excellence. Today, it is considered a model of rigorous management of one of the world’s richest fishing grounds, which is still recovering from severe overfishing in the 1970s and 1980s. But it is also a story of government determination to make sure the bounty would be shared among as many citizens as possible, from illiterate villagers to middle managers to a new cadre of fisheries inspectors and patrol officers to businessmen and civil servants.”

The FANRPAN Food Security Policy Leadership Award is given to individuals and organizations that have made lasting contributions through policy formulation and implementation, appropriate technology or innovation to food security in FANRPAN member states.

Dr Lindiwe Majele Sibanda, Chief Executive, FANRPAN, said:
“Africa is neither poor nor incapable of feeding itself, but it needs more fresh initiatives to promote food security, policy development and poverty alleviation. Visionary people such as President Pohamba help create policies for a food-secure Africa.”

The fishing industry has grown to the extent that it is currently Namibia’s second biggest export earner of foreign currency after mining (90% of national output is marketed for export).

In 2005, Namibia harvested about 552,164 tonnes of fish. The final value of processed products (export value) that year was around US$376.0 million. In 2005 the sector contributed US$372.2.1 million to GDP, compared with US$97.8 million in 1996.

Africa - taking the lead in 2011
Following Cancun, it now seems to be the turn of Africa to spearhead climate change initiatives. The Africa Adapt Climate Change Symposium is scheduled to take place on 9-11 March in Addis Ababa, Ethiopia. It will focus on evolving approaches, tools, methods and philosophies ad-
dressing the links between increasing climate change and variability in Africa and sustainable development. It will provide a platform for networking among research providers in Africa, media, policy and community practitioners.

The main topics under the proverbial microscope are:

- Links between adaptation, mitigation and low carbon, or “climate compatible” development
- Roles of local and indigenous knowledge in addressing climate change

• New thinking on community-led responses: from local to global
• The roles of media and intermediaries in translating, sharing and advocating
• National and international policy: linking policy and practice

COP 17
COP 17 will take place in Durban on 28 November - 9 December 2011. The theme will be Climate Justice. FANRPAN will play a lead role in partnering with CCAFS to host Agricultural Day, a side event of COP 17, on 3 December 2011.

References

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