

Livelihood Profile Oromiya Region, Ethiopia

Nedjo-Dilla Teff, Finger Millet and Nug (NTF) LZ Feb 2009¹

Zone Description

Nedjo-Dilla Teff, Finger Millet and Nug/ flux (NTF) LZ is one of the livelihood zone zone found in west Wollega administrative zone of Oromiya region. It encompasses Jarso, Babo, Nedjo, Yubdo, Gimbi, Ayira and Boji Dirmaji woredas with mixed farming as its main category. Hence its main economic activities rely on crop production. Agro ecology of the zone is characterized as *woina dega* midland. The topography of the LZ dominated by undulating and plain features. In NTF LZ there are vegetation types of bush shrubs and forests. In addition Gold, Phosphorous, Timber and Game are natural resources found in the LZ. Nedjo, Bila, Jarso, Ayira Yubdo and Gimbi are business town of the LZ. Mountain of Dilla and Ayira very known in the LZ, rivers like Dilla, Alaltu and Kujur are located in the LZ.



The highway from Addis Ababa to Assosa and Dambi Dollo, from Nedjo to Babo crosses the LZ. In NTF LZ April to October is the rainy season in which it receives 900-1600mm rainfall per annum. The hottest period of LZ is from January to March and the minimum temperature it receives is during the months of June to August. The population is sparsely populated across the LZ. The livelihood zone has sandy loam soil type which is moderately fertile and the over all production potential of the area is good hence it is food self sufficient zone.

Maize, sorghum, finger millet, teff, yam, sweep potato, Nug and coffee are crops grown in the LZ during *Genna* season. Of these crops Maize, sorghum, finger millet is grown for home consumption. As the same time the households used coffee, Nug, teff and finger millet main crops for sale. Finger milled, maize and sorghum are the main staple food purchased by the households.

Weeding and harvesting are laborious and time consuming agricultural activities in the LZ. Both weeding and harvesting are done by men and women, land preparation are done using ox ploughing.

Termite, Wild Animal, Stock Borer and Ball Worm are pests and Rust, Smut and Leaf Blight are disease found in the LZ. Of these termites, wild animal and stock borer are the main obstacles to the crop production. Termite and wild animal affects all types of crops in the LZ whereas stock borer affects maize.

Currently treatment available to the households is IPM and chemicals and traditional way of preventing is practiced. These treatments are supplied to the community through regional Bureau of Agriculture and rural Development and NGOs freely. In order to increase production the HHs utilized inputs like artificial fertilizer (DAP and Urea), selected seed variety of maize and manure.

Cattle, sheep and donkeys are the main types of livestock peculiar to the LZ. They feed their animals from grasses and browse free grazing and crop residues. Except very poor HHs all other wealth group owned cattle and sheep with different herd size. In addition to these the better off and middle households have donkeys the most important pack animal in the rural community. There is no livestock migration because all households own the grazing land where they used to feed their livestock. There are major and minor rivers both in dry and wet seasons that are used as water source for the animals. The households cover some of their food need through slaughtering of sheep and chicken. Cow is the only milked animal and it is sold at the age of three and above while sheep sold at one year and above. Those missed ox and cattle are replaced from within herd and by purchase. Butter, skin, honey and eggs are livestock product sold in the LZ to generate income. Looking after the animals are task left to the children.

Trypanosomiasis, CBPP and pasteurellosis are the main disease affecting the livestock in the LZ. Trypanosomiasis affects Bovine, Ovine and equine, CBPP affects only Bovine and pasteurellosis affects both cattle and sheep. The usual way of preventing these diseases are using Diminial & Varidium, vaccination and anti-biotic that are supplied by regional Agricultural and Rural Development Bureau through purchasing in cash. Other economic activities that

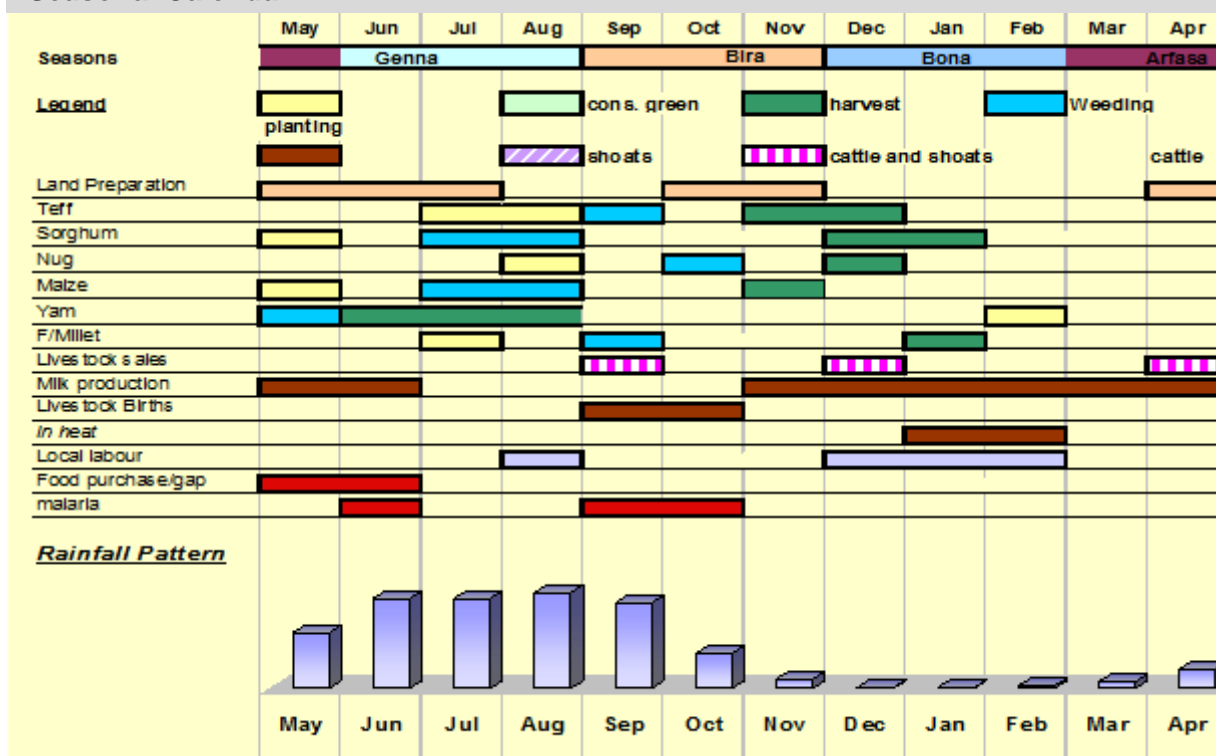
¹Field work for the current profile was undertaken in Feb 2009. The information presented refers to Nov 2006 - Oct 2007 (EC Nov 1999 to Oct 2000), a good year by local standards. Provided there are no fundamental and rapid shifts in the economy, the information in this profile is expected to remain valid for approximately five years (i.e. until 2012). The exchange rate January 2007 1USD = 9.19 ETB.

HHs engaged in are honey production and local labor. All wealth groups generate income from this source and the poorer HHs increase their income performing local labor. Termite, wild animals and livestock disease are chronic hazards affecting the LZ every year and remain a threat with respect to production increment. Generally, however under normal condition the area is surplus producing or at least a self-sufficient area and no food aid distribution.

Markets





The market access in some instances is good and in other it is bad depending on the nature of roads. It is also assumed road network between rural areas and the woreda centres is poor. However the market access of the NTF LZ is moderate. Finger millet, sorghum and *Nug* are crops sold in the local market. Trading of Finger millet and sorghum is from local markets → Gimbi, Billa, Jarso, Nedjo, Ayera and Yubdo towns in the LZ. The trade route for *Nug* starts from local markets → Gimbi, Billa, Jarso, Nedjo, Ayera and Yubdo → ended up in Addis Ababa. The selling time of these crops runs from February to May. On the other hand cattle, sheep and chicken are livestock sold in the LZ. The trade route for these follows the same route as crops but consumed within the LZ itself. The peak time for such business is during holidays and New Year time in the months of September, December, February and April. The main staple cereals purchased are finger millet and sorghum. Both f/ millet and maize brought to the local market from the respective near by local towns of Gimbi, Billa, Jarso, Nedjo, Ayera and Yubdo. May to June the food purchase time of the year. During the reference year the 1 USA Dollar equivalent to 8.676ETB.

Seasonal Calendar



In NTF LZ there are four seasons. These are *Genna* (June –August), *Bira* (Sep.-Nov.), *Bona* (Dec.-Feb) and *Arfasa* (March-May). *Genna* that extends from June to September and *Arfasa* from February to April are the two rainy seasons in the zone. Teff, sorghum, maize and finger millet are crops grown in different agricultural time. The consumption year runs from the month of November to October. In this livelihood zone agricultural year starts with the months of May by clearing and preparing farmland for planting of sorghum and maize. Between the months of July to September the farmers are busy with weeding and taking care of the nursery. The planting and weeding time of maize and sorghum is May and July to August. Teff which is the short cycle crop grown from July to December. While finger millet grown from July to January. The time for livestock sale is in the months of April, September and December during holidays and at the time of Ethiopian New Year. November through June is the time when cattle are milked. January to February is the time for the in heat period when crop residue is available. Food purchase from May to June is the time when stocks get run out. Household in this LZ increase their income by engaging in local labor during weeding and harvesting period.

Wealth Breakdown

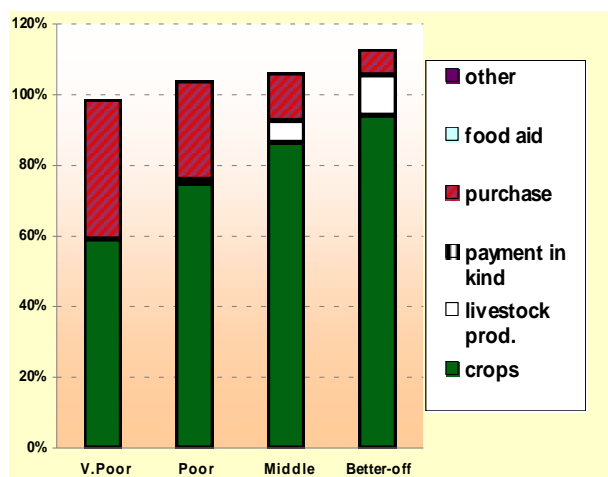
| | | Wealth Groups Characteristics | | | |
|-----------------------------------|---|-------------------------------|----------------------|--|---|
| | | HH size | Land area cultivated | Crops cultivated | Livestock/Asset Holding |
| Very Poor |  | 4-6 | 0-1 timad | F/ Millet, sorghum, maize, teff, yam, Sweet and Irish potato | 1-2 sheep, 2-4 hens, 2-3 beehives |
| Poor |  | 5-7 | 0-2 timads | F/ Millet, sorghum, maize, teff, yam, Sweet and Irish potato | 0-2 oxen, 1-2.5 cattle, 2-4 sheep, 2-5 hens, 2-5 beehives |
| Middle |  | 6-8 | 1-3.5 timads | F/ Millet, sorghum, maize, teff, yam, Sweet and Irish potato | 1-3 oxen, 7-9 cattle, 4-6 sheep, 0-2 donkey, 6-8 hens, 6-9 beehives |
| Better-off |  | 7-9 | 2-4 timads | F/ Millet, sorghum, maize, teff, yam, Sweet and Irish potato | 3-5 oxen, 15-17 cattle, 4-5 sheep, 1-3 donkey, 6-8 hens, 7-9 beehives |
| 0% 20% 40% 60% % of population | | 4 timads=1 hectare | | | |

In NTF livelihood zone wealth is mainly linked to the land holding, amount of crops harvested and ownership of livestock. The wealth difference is also observed by size of family members. From the table above millet, sorghum, maize, teff, yam and potatoes are crops cultivated by all wealth groups. At the same time all wealth groups grow Nug and coffee for the income side. Honey production is also the livelihood of this food zone. The very poor wealth group do not have ox, cattle and sheep. This group lacks of oxen, money to buy inputs and shortage of land hinder them not to produce more crops. The poor wealth group possess 0-2 oxen, 1-2.5 cattle and 2-4 sheep, the middle possess 1-3 oxen, 7-9 cattle and 4-6 sheep. The better off on the other hand possess 3-5 oxen, 15-17 cattle and 4-5 sheep. The better off, middle, poor and very poor HHs respectively owned 7-9, 6-9, 3-5 and 2-3 beehives that enable them generate income. The better off and middle HHs in the LZ owned 400-600 and 250-350 heads of trees and actually these two groups receive substantial annual income from the sale.

It is noted that 4 *timad* = 1ha.

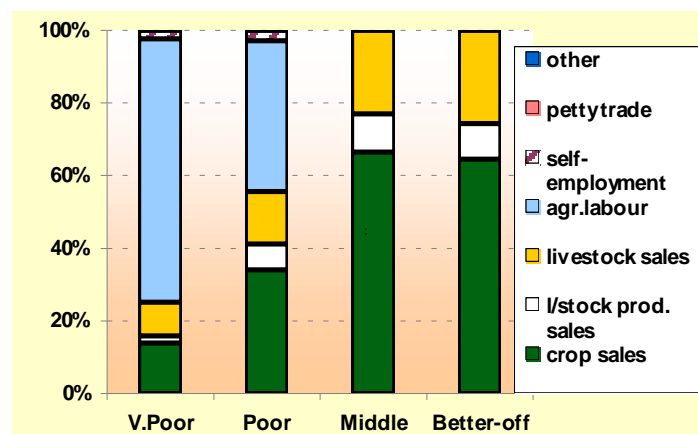
Sources of Food – Normal Year (2006-2007)

In NTF livelihood zone zone own crop production, purchase and livestock product is the food source for all wealth groups. HHs in this LZ cover most of their annual food requirement from own crop production. The better off and middle households cover 90-100% and 80-90% of their annual food need from own production respectively. The range respectively reaches 70-80% and 55-65% for the poor and very poor households. Wealth groups also cover their annual food requirement through purchase which decrease across the wealth group. The annual requirement that comes from purchase for the poor and very poor is found in the range of 250-35% and 35-45% respectively. Generally in this livelihood zone zone very poor HHs get annual food need only from own crop and through purchase. The annual food contribution of the livestock product increases across the wealth groups. This contribution ranges 5-9% for rich groups. Very poor HH do not get food from this source. It is noted that this LZ is productive and food self sufficient and there is no food aid as a food source.



In the graph, food access is expressed as a percentage of minimum food requirements, taken as an average food energy intake of 2100 kcals per person per day.

Sources of Cash – Normal Year (2006-2007)



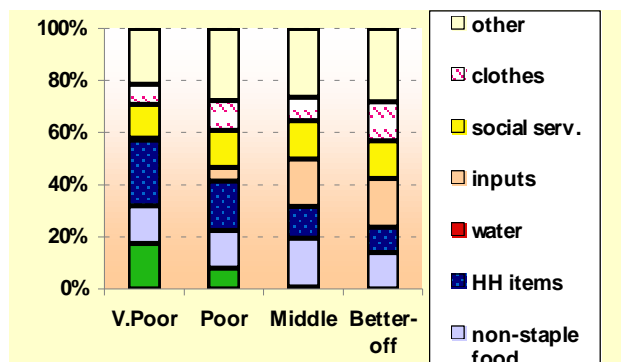
In general the major source of income in the LZ is crop sale, livestock and livestock product sales, agricultural labor and self employment. In NTF LZ the annual income of better off, middle, the poor and very poor HHs is found in the range of 6650-7650ETB, 3900-4900ETB, 2050-3050ETB and 1200-1800ETB respectively. The major income source for the middle and the better off is crops sale followed by livestock sale. The important source of cash income for the very poor and poor wealth group comes from the agricultural labor (weeding and harvesting) followed by crop sale.

The graph provides a breakdown of total cash income according to income source.

Annual income (ETB) 1200-1800 2050-3050 3900-4900 6650-7650

Expenditure Patterns Normal year (2006-2007)

Items of expenditure in the LZ include staple and non staple, HH items, inputs, social services, cloths and others. As the food requirement of the better off and covered from their own field they did not purchase staple food in the reference year. Whereas the poorer groups purchase the staple food to meet food. The staple food purchased is finger millet, maize and sorghum. All wealth groups purchase non-staple food (pulses and oil), the middle and better-off purchase sugar and meat as well. Expenditure on social services, household items and cloths for the family members increases across the wealth group. The annual expense of better off on HH items and clothes respectively found in the range of 600-900ETB and 850-1250 ETB.



The graph provides a breakdown of total cash expenditure according to category of expenditure.

The expenditure on inputs increase with the wealth. The very poor purchase only tools, the other wealth groups also purchase animal drugs and fertilizer and the middle and better-off also purchase additional livestock, pay for ploughing and other agricultural labour. All wealth groups spend money on 'Other' non essential items.

Hazards

Crop pest (termite and stalk borer), wild animals and livestock disease are the chronic hazards affecting the LZ every year. Ball Worm and Rust, Smut and Leaf Blight are pests and disease found in the LZ as well. Of these termites, wild animal and stock borer are the main obstacles to the crop production. Termite and wild animal affects all types of crops in the LZ whereas stock borer affects maize. Trypanosomiasis, CBPP and pasteurellosis are the main disease affecting the livestock in the LZ. Trypanosomiasis affects Bovine, Ovine and equine, CBPP affects only Bovine and pasteurellosis affects both cattle and sheep.

Coping Strategies

In order to prevent production of both crops and livestock the household apply medicines that are available to them by regional Bureau of Agriculture and Rural Development and NGO's in cash or freely. These medicines are Diminal and Varidium, vaccination and anti-biotic for livestock production and IPM and chemicals for crop. On the other hand the better off and middle households increase sale of livestock and use carry over stocks they had and reduce 'other' unnecessary expenses. Whereas the poorer households cope with through maximizing income from local labor sale and to the extent possible increases sale of livestock and ignore 'other' expense. It is expected that the household shift/ switch to purchase less cost food commodity.

Indicators of imminent Crises:

- Unsustainable / Increased sale of livestock
- Stocks getting run out
- Late onset and erratic and uneven/ rainfall
- The ups and downs in crop and livestock price

- Trend of increasing in local labor and self-employment

Summary

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Crop pest (termite and stalk borer), wild animals and livestock disease are the chronic hazards affecting the LZ every year. Ball Worm and Rust, Smut and Leaf Blight are pests and disease found in the LZ as well. On top of this trypanosomiasis, CBPP and pasteurellosis are the main disease affecting the livestock in the LZ. Households in the LZ utilize the available medicines like Diminal and Varidium, vaccination and anti -biotic for livestock production and IPM and chemicals for crop. Millet, teff and yam are key parameter in terms of their production level and price whereas sorghum, maize and sweet potato are important key parameters in terms of the production level. The herd size and price of sheep and cattle is also key parameters as well.

Generally, favourable weather condition coupled with moderately fertile soil types contribute to good over all production potential and hence the LZ under normal condition is surplus producing or food self- sufficient.