Appendix 3: More on Spatial Variables

Differences between farming systems:

The different farming systems suffer poverty in different ways. The Central and Western banana and coffee system on the fertile lands around Lake Victoria extends to include parts of Mubende and Kabarole. Rainfall is bi-modal rain, the area is highly populated and there are good communications so the marketing of crops is relatively easy. Most farmers grow bananas and coffee and other food, including cassava, sweet potatoes, maize, beans, groundnuts and sorghum for brewing. In some areas maize, tea, tobacco and cotton are grown as cash crops. There is no defined crop rotation; annual crops are grown on scattered plots at subsistence level. Resource poor farmers mainly use hand hoes, although the very poor sometimes do not even have a hoe. Livestock is not a significant occupation for most farmers and is almost non-existent for the poor. According to ActionAid the major contributory factors to poverty are: a shortage of land, mainly owing to the mailo tenure system and population pressure; a shortage of labour, owing to inability to organise family labour viably for production and the need to sell labour at periods of peak demand; limited access to farm implements owing to lack of resources and access to credit; and lack of co-operation in group activities to help solve problems. Many of the sick, drunkards, widows, widowers, disabled, and the old are unable to meet needs for basic survival. The most pressing needs are for food, shelter, clothing, medical care, education, transport, bedding, and clothes.

Problems within the region vary. For resource poor farmers interviewed in Mitiyana land was a major hindrance followed by lack of capital and skills. In Kibale, land shortage is not a problem, what is missing is the labour and ability to use it effectively. "A poor peasant had between 2 and 5 acres of land with only about a quarter of an acre under cultivation. Family labour can't be effectively mobilised - children migrate to towns like Mubende and Kiboga for petty employment" (ibid). Land insecurity is a big problem; most land is owned by Baganda landlords who it is feared could evict them without compensation. Soils are very fertile and harvests good, but due to poor storage facilities and road networks the poor peasants cannot store and sell when market prices are good.

In research in Kitende village in central Uganda between 1983 and 1984 Mamdani found the following land distribution:

<table>
<thead>
<tr>
<th>strata</th>
<th>average landholding</th>
</tr>
</thead>
<tbody>
<tr>
<td>landlord</td>
<td>4 sq miles</td>
</tr>
<tr>
<td>rich peasant</td>
<td>2.17 acres</td>
</tr>
<tr>
<td>middle peasant</td>
<td>1.08 acres</td>
</tr>
<tr>
<td>poor peasant</td>
<td>0.66 acres</td>
</tr>
</tbody>
</table>

It should be noted that it is likely that many of the peasants were tenants or squatters on the landlord’s land. The poor had to rent land or sell labour power to survive.

In the Nile farming system the main crops are tobacco, millet, cassava, simsim, finger millet, and cow peas. People keep large numbers of sheep and goats. Due to the land tenure system, land shortage is not a severe problem, but the poor farming systems have contributed to environmental degradation. In Arua land is communally owned and this has over the years restricted free movement and the acquisition of land creating very high population densities in some places, for example Ayivu county. Small plots and large families lead to land fragmentation which in turn leads to poverty, continuous cultivation and low productivity. "As a result many poor peasants have started tracing their distant relatives and friends in sparsely populated areas to borrow land for food and cash crop production. In the dry season they move to valley bottoms to grow crops." (ibid)

Cash availability is a problem. Tobacco is the main cash crop and ActionAid predict growing it will become an activity of the rich; it is labour intensive and involves all the family and in most cases hired labour is necessary which the poor cannot afford. The time spent on tobacco production
reduces time spent on food production "and this has resulted in food shortages to many homes of the poor peasants." Also children miss school to help parents with the result that fewer tobacco growers' children are in school, or they enter late. Tobacco growing has had adverse effects on the environment leading to the depletion of both natural and planted forests which has affected rainfall patterns making it more unreliable and reduced the availability of domestic fuel. Many women are using grass for cooking.

In the Northern farming system, inhabited by the Acholi and Langi communal labour on pieces of land at a distance from home is practised. Crops grown include cotton, sunflower, tobacco, and simsim, and millet, cassava, pigeon peas and sorghum. There are some cattle but these have been depleted by tsetse and rustling. In a study of Amwoma in Lira Mamdani found that historically it was a labour reserve for plantations, municipality bodies and the armed forces just like other areas in northern Uganda. In the past cotton was the major cash crop but this has been replaced by crops which can be easily marketed locally; millet, simsim, and sunflower. Land is communally owned as public land and acquired through customary inheritance. Shortage of land is not an issue; the social differentiation of the peasantry develops around labour processes. They have minimal capacity to till the land they own because they have fewer hoes and no ploughs. This forces them to enter voluntarily into unequal relations with the rich because they can’t use all their labour capacity.

The mountain farming systems on the slopes of the Ruwenzi, Elgon and Bufumbira ranges have similar farming systems. All except Kigezi grow bananas, plus sweet potatoes, finger millet, irish potatoes, maize, beans, and field peas. Vegetables have been successfully grown as a cash crop. Problems are similar to those in Nile farming system except that problems are more pronounced in Kabale. Severe land shortage caused by the high rate of population growth and the system of land subdivision and inheritance has led to migration to other areas, especially Mubende, Kibale, and Kabarole. The land is owned through customary tenure, free hold and government leasehold. The majority of peasants are customary tenants and have between 0.1 and 0.4 hectares of land. There is land exhaustion, poor yields, food shortages and increasing cases of malnutrition among children. Land fragmentation is on the increase and poor farming methods on hilly terrain have led to erosion.

Some evidence of regional differences: In all areas women do most of the work; in Kabale ActionAid estimated they did between 80 and 90% of the agricultural labour and they also sell their labour to supplement the husband’s cash income to meet basic home requirements. Some peasants have access to informal credit which is mainly organised through women's groups. Vulnerability is increasing due to population pressures and the number of landless is increasing. In Kabale, especially in Rukiga water, education, and health services are well established but not affordable to the poor. 40% have never been to school while 18% dropped out before the end of the primary cycle. There are fewer dropouts than usual because of the importance attached to education by the Bakiga.

In a PRA in Bundibugyo, where the Bwamba live, resource poor farmers farmed less than 1 acre of land. They had very little education and a survey showed that a large number of children who had dropped out of school belonged to the poorest categories. Limited labour supply was seen as a major constraint as they would sell their labour to the well-off for a cash income. The affordability and accessibility to services is very poor due to lack of effective demand by peasants and physical isolation.

Different areas are suffering differently from the haphazard land tenure system which in some places is leading to landgrabbing, eviction, insecurity and landlessness "The question of mass evictions from land by mailo or lease holders especially in the lake region is now common place". The enforcement of legislation to preserve national parks and other land gazetted for environmental protection has led to other evictions. If all the environmental protection laws are enforced it has been estimated that 1.59 million people will have to be evicted from their settlement and farming land (ibid. p4).

Isolation multiplies disadvantages: A person born and living in the remote and rocky mountains of Bundibugyo faces a different set of social and agricultural conditions (access to water,
electricity, good soils for crops, schools and teachers, clinics and health workers, agricultural extension officers etc) from the residents of the fertile plains of Mukono (ActionAid, 1994)

After NRA forces took power in 1986 Obote's UNLA went back to the bush in the North to wage another guerilla campaign. Since then the NRA has been battling a succession of insurgencies in the north by turns crushing and co-opting the insurgents and their supporters. At the height of the election to the Constituent Assembly the NRA was battling in the north with yet another remnant of the old insurgent forces - the Lord's Resistance Army. The counter-insurgency campaign has been described was "sometimes heavy-handed" and there have been reports of NRA abuses. Soldiers have been executed in connection with offences.

There has been some recovery in Arua and Gulu. Traditional cultural ties and patterns remain strong and serve as a major support in the local economic systems. Most people in Gulu, Kitgum and Arua have been able to reclaim their original agricultural land without much problem. Much of the lost infrastructure needs to be repaired. There is considerable donor and NGO activity but more still needs to be done.

There have been a number of violent incidents recently. On July 7 the New Visions reported that seven armed men, believed to be Karimojong warriors, stormed the parishes of Angetta and Anepkide in Ollim sub-county, Lira district raping women and robbing the villagers of many household properties recently, including clothes, utensils, goats, bicycles, and money. A grenade attack on hotel in Arua killed a tourist and injured several others in August 1994. Land mines are planted.

Attempts are being made to return to peace. The New Vision of August 31 reported that the Acholi community living in Kampala, Jinja and Entebbe had decided to contact Joseph Kony to persuade him to end the rebellion in Northern Uganda. The government initiated a similar move earlier, talks were held with Kony and it seemed rebellion would be renounced - then he changed his mind. The rebellion started in August 1986 and it has cost many lives, destroyed property, impoverished the population and retarded development in the area. The Northern Ugandan Rehabilitation Project cannot bear fruit while the area is insecure. The rate at which the population is subjected to attacks by rebels makes it difficult for any meaningful rehabilitation to be carried out.

Places near borders, particularly those with Sudan and Rwanda, are prone to be flooded with refugees responding to events inside those countries.

The distribution of markets, infrastructure, etc: There are inequities in the distribution of resources between geographical areas: in staffing, the state of health facilities, and patterns of recurrent support and supplies. The key factor is the poor distribution of health manpower. "The number of staff attached to the DMO's office (including seconded staff) varies from 110 staff per million population in Rakai to 2,400 per million in Kampala" (UNICEF 1994, 34) The people in the Northeast have the most difficulty in reaching a health unit for care. (ibid, p36).

Regional inequalities apply also to industrial development. Most development is happening around Kampala and Jinja. Even northern entrepreneurs with strong ethnic identification with their own districts have set up their large operations in south. Lower rural labour and land costs do not compensate for poor access to power, skills, services and markets.

An extensive and competitive retail sector operates throughout rural areas involving shops and market stalls often linked to shops. Most have virtually identical stock, low turnover, and depend on credit from the distributor. There has been a lack of effective demand for agricultural supplies but this may improve as farmers get a higher share of the value of their products and transport and distribution costs come down.

There are a few large enterprises in some districts, although not in Kumi, Kitgum, Apac, or Arua. District centres contain many petty traders and artisans and a few large entrepreneurs who may own a sizeable farm, shops, houses, a bar and lodge, a lorry or pickup. They may buy and sell commodities or operate a small workshop. The owner's relatives manage business while the owner probably lives in Kampala and has a job in government and commercial interests there too. Outside
district centres there are a few larger farmers found who constantly employ labour, small traders who hire rather than buy their transport, and a multitude of people growing, making, buying, selling, moving products and providing services for internal and external consumption (ibid).

There are some medium-sized enterprises in crop buying and processing or fabrication with a stable labour force and formal accounting. With the exception of coffee in the south these are likely to be controlled by co-operatives or the State, concentrated in a few old established district HQs, and survive by subsidy rather than sales. The business environment is unstable and insecure: there is no business ethic, a scarcity of trustworthy people, and high transactions costs as agreements are often broken. The situation is made worse by the failure of the State involving lax administration of irrational regulations and heavy taxation. Laws, property rights and contracts cannot be properly enforced because judges, policemen and land tribunals can be bribed or subjected to political pressure. Surmounting obstacles created by the state absorbs the time of the few trained people with the necessary political connections while the state offers little positive support or help. Brett predicted that liberating the market without addressing these weaknesses will not guarantee the rapid development of private enterprise in deprived rural areas.

Artisanal local manufacture using imported equipment, is constrained by small local markets and low returns to labour. They become marginalised by capitalist production once market size justifies imports.

There are some large industrial units in the main district towns usually owned by the Uganda Development Corporation, and often initially funded by donors. There are meatpacking and agricultural implements factories in Seroti, a spinning mill and starch factory in Lira, and a cement factory in Tororo, none of which are commercially viable. Most private entrepreneurs from these districts set up in Kampala. Privatisation of the UDC is taking place.

Before liberalization the biggest crop-processing and marketing agencies were the co-operatives which acquired their monopoly or near-monopoly positions in the 1950s and 60s. Virtually none of the Unions would survive without monopolies or subsidies and many are in the process of replacement by private enterprises.

There are a few large private and state/private firms involved in processing and exports. British American Tobacco Co buys from farmers through co-operatives and provides technical services and advice. Mukwano has a near monopoly on soap production and is a major edible oil processor. The Madhvani and Mehta sugar estates have been returned and are producing a growing proportion of domestic consumption. Mitchell Cotts is re-establishing tea estates and there are a few small expatriate farmers in tea. Some medium-sized expatriate firms (Casements, Four Ways, and Roko Construction) are buying produce where profitable opportunities open up (eg recent simsim boom in the north) and may move into processing. A number of private processors have received coffee export licences. Three large foreign importers have made prefinancing arrangements with local processors and are upgrading their facilities - there is now active competition for coffee which has led to prompt cash payments, rising producer payments, and more efficient handling of the crop. Similar reforms are being introduced for cotton.

**Rural-urban inequality:** PTA costs are higher in urban areas than rural because of higher educational standards. There are proportionately more unqualified teachers in rural areas. Vocational training centres and opportunities for adult literacy courses are also less available in the rural areas.

Staffing in the formal health system is very heavily oriented to hospitals - usually located in urban areas. A substantial proportion of smaller health units and most of the rural care is in untrained hands. Curative hospital-based staffing is also favoured by the mix of staff coming from training institutions

- 82% of medical officers in hospitals
- 82% of allied health professionals are in hospitals
- 79% of registered nurses are in hospitals
- 63% of enrolled nurses are in hospitals
43% of medical assistance work in hospitals
39% of nurse aides and dressers work in hospitals
6% of public health/sanitary staff work in hospitals (UNICEF 1994, p35).

Staff are reluctant to accept postings in more disadvantaged districts due to the lack of housing, schools, and opportunities for outside income generation. Only about 1/4 of all trained personnel hired by the Ministry of Health are posted to lower level rural health units.