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SYMPOSIUM ON THE GREAT LAKES REGION:

REINFORCING THE REGION'S SOLIDARITY AND SETTING AN AGENDA FOR A CULTURE OF PEACE, UNITY AND PEOPLE- CENTERED DEVELOPMENT

The Bottlenecks to Household Food Security in the Great Lakes
Region

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Attaining adequate household food security is an essential step towards development objectives. These development objectives are, inter alia, improved human well being, poverty alleviation and sustainable economic growth. Poverty alleviation in Less Developed Countries (LDCs) is back on the international agenda. In the 1950s, the dominant development paradigm was growth through industrialization and the poverty alleviation strategy was community development. The alternative approach was imperialism as the cause of poverty. In the 1960s, it was agricultural intensification to service growth and human capital development. The poverty alleviation strategy was trickle down and the alternative approach was the dependency theory and state socialism. In the 1970s the theme was redistribution with growth; the poverty alleviation strategies being basic needs and integrated rural development. By then the alternative approach was "small is beautiful" (Lipton, et.a1.1992).

In the 1980s, the dominant development paradigm was neo-liberalism, hence, structural adjustment and rolling back the state. The poverty alleviation strategies were support for NGOs and social dimensions of adjustment. At this particular period the alternative approaches were structuralism and modified government intervention. In the 1990s, poverty alleviation became the dominant development paradigm. The poverty alleviation strategies are labour-

intensive growth, transfer and safety nets. The alternative approach is asset redistribution. This strategy is seen as a twin-track composed of labourintensive growth and improved social services. The hypothesis is that the twin track strategy offers a powerful and potentially flexible way to poverty alleviation. The late 1990s have revealed shortcomings in the strategy. These shortcomings include external factors, resourcepoor areas, urban- poverty and gender issues (World Bank, 1992).

In the 1990s, there has been little weight put on income and consumption; and instead there have been more complex, multidimensional concepts of livelihood and livelihood security. As a positive result of this shift, the perceptions of poor peasants themselves are prominent in the livelihood and livelihood security definitions. The success of the poverty alleviation strategy will be achieved among others by putting in place efficient and effective household coping strategies (World Bank, 1990). These household coping strategies will guard against sudden shocks, guarantee household food security and prevent household destitution. One has to know that household food security is a unique and complex concept determined mostly by the interaction of a set of agro-physical, political, socioeconomic and biological factors.

In most Less Developed Countries (LDCs) there are factors which reduce household food security. These include among others chronic poverty, rapid population growth, declining per capita food output and poor infrastructure. There are also ecological constraints, limited arable land, inappropriate policies and diseases. On this list, one can add poor water and sanitation, inadequate nutritional knowledge, civil war and ethnic conflicts. These factors do play havoc on household food security for example rapid population growth culminates into overcrowding and reduced per capital land availability (Riely et.a1.1999). Not only that; it also reduces per capita food availability. Rapid population growth affects sanitation and spread of disease.

The spread of disease due to rapid population growth influences labour productivity, income and nutritional status. The importance of those factors as determinants of household food security varies significantly across households, locations and over time. Clarification of factors that hinder household food security is essential for

identification and interpretation of the household coping strategies. Coping strategies are activities, which maintain food security or combat food insecurity that, occur at the household level. These coping strategies are directly attributed to household activities rather than external factors.

The Great Lakes Region has been faced by the problems of banana weevils and nematodes, refugee influx, HIV/AIDS pandemic, the ethnic wars, among others. These, have combined to erode the food security of the region. Bananas is the major staple food of more than half of the people. Banana weevil and nematode attack in the area, is associated with household food insecurity in the region. Some farms were abandoned due to banana decline.

Banana weevils and nematodes became a serious problem since the 1970s. These are associated with declining soil fertility which is also attributed to high rainfall, shortage of cattle manure and the nature of the soil. However, some areas are more affected than others.

A survey conducted in Kagera region, Tanzania, revealed a maximum worm infestation rating by weevil, cosmopolites sordidus, of 90% to 100% in Bukoba District, 30% to 90% in eastern Muleba District and 0% to 30% in Western Muleba District. The most important nematode is Pratylenchus goodeyi occurring on over 94% of the surveyed farms, causing a yielding loss of 85%.

There is a concern of the increasing proportion of children in region who are orphans due to HIV/AIDS pandemic which has killed their parents. Though these children can engage in productive activity, it will be increasingly difficult to cater for their basic needs, since a small percentage of adults will assume the responsibility for feeding, clothing, housing, and educating them. It is possible that this highly vulnerable segment of society could be neglected and experience food insecurity.

Automatically, many turn out to be street children and errand boys; however, there are other coping strategies households employ to cope with the situation. These street children may be more vulnerable to diseases such as cholera due to insanitary conditions. Also, these children, some due to poverty, have been driven into the sale of

sexual services, which in turn has increased HIV/AIDS infection; hence, a clear cause of food insecurity.

Due to HIV/AIDS pandemic causing death to parents, some households in the region are inhabited by children and old people. These groups, are less mobile, more dependant, have less resistance to diseases, and often command few resources. The likely outcome of such a household is food insecurity.

The influx of Congolese, Rwandese and Burundi refugees in Tanzania and Uganda, is another problem which has exacerbated food insecurity. The refugees had increased the population density. The refugees have also placed huge demands on local services and infrastructure increase, fuel wood and water needs to such an extent that there is eventually environmental degradation. This local population pressure has increased food insecurity to the households.

Policy makers at local level have paid little attention to village-based strategies for coping with food insecurity. Food is produced at village level and hunger threats start at village level. It is only when widespread problem of hunger becomes exposed that affected countries and the international community gets concerned. Food supply and consumption shortages in the Great Lakes Region have been an order of the day in spite of the region's degree of unity. This sense of hospitality on the part of the region has compounded problems the side effects of which are not easier to bear. These refugees settled in some parts of the region and some have remained up till now.

The current agricultural crisis among others in the region, had been increased by the refugee crisis, which started in October 1993 when political conflict in Rwanda and Burundi escalated, resulting in massacres. People had to flee their Burundi and Rwanda homes thereby crossing into Tanzania and Uganda in search of safety. In a space of 24 hours on 28/29 April 1994, more than 200,000 Rwandese had crossed into Tanzania at the Rusumo Bridge (border), (Lwehabura 1997). By the end of 1994, more than half a million refugees were in Tanzania. This was a relatively big number of refugees in Kagera Region.

As of November 1996 before the start of repatriation, 626,272 registered refugees were hosted in camps in Kagera Region. In addition, about 600,000 unaccounted for refugees were settled in local villages (Lwehabura, 1997).

Bearing the above in mind, then the complexity of household food security issues are easily tackled by probing on three distinct but inter-related dimensions of the concept. These three dimensions are household food availability, access and utilization (Riely, et.a1. 1999). In this case, then household food security arises when a household at all times has physical and economic access to sufficient food to meet the household members dietary needs for a productive and healthy life.

Attainment of household food security entails the aggregate availability of physical food supplies. Households need also to have adequate access to those food supplies through own production, market or other sources. The utilization of those food supplies have to be appropriate to meet the specific dietary needs of household members. Household food availability is attained when enough quantities of food are always available to all household members. Such food is obtained through household production, other domestic output, imports and food assistance.

Food access is also present when households and household members have enough resources to get appropriate foods for a nutrient. Access is determined by household income availability, income distribution within the household and the food prices. Food utilization is the proper biological utilization of food. This requires diet which provides enough energy and essential nutrients, potable water and good sanitation. Household knowledge of food storage, processing techniques, nutrition, child care and illness management determines effective food utilization.

Effective household food access is determined by the physical, policy and social environment. Household food utilization is manifested in nutritional status of household members. This is apparently determined by the quantity and quality of dietary intake, child care and feeding practices. The health status is also a determinant of household food utilization. Improved household food utilization is

reflected in the health and nutrition of household members. This is clearly seen in the labour productivity and household income earning potential. However, household food availability is not enough to get enough household food access. Likewise, household food access is not adequately tailored to meet the demands of food utilization at household members' level. This is a crucial understanding of the general nature of the household food security problem. The knowledge of factors which hinder households from meeting the dietary needs of household members, reveals the household coping strategies instituted (Riely, et.al.1999).

Household Food Security in Africa and The Less Developed Countries

Most of the Less Developed Countries (LDCs) procure food either by own production, purchase from abroad or by food aid. The country's own production depends on various aspects, but the most common are taxation of agriculture in the agricultural sector, food subsidies in the fiscal aspects as well as interest rate and capital market in the monetary sector. Also there are export taxes on export crops in the trade sector but also state intervention in the exchange rate and market policy. Foreign currency earnings for the purchase of food in most cases are determined by the policy interference mentioned above. Food availability in most LDCs is also controlled by the international market in the form of the level and stability of food prices and raw materials (Sawio, C:1995). However, the international market is markedly present in such food products like cereals, dairy produce and sugar. The international market has little influence on such items as bananas, cassava, millet, sorghum and even beans which are produced from the LDCs.

Population growth also plays a role in the availability of food at national level. Population increase has to correspond to food supply increase due to production or imports. The aim is to keep the food availability per capita at the same level in the LDCs. More often than not, in the rural areas of the Less Developed Countries (LDCs), what one eats in a household much depends on the quantity the household members get to eat. Beertlandt, et.al. (1995) contend that the crucial item is the entitlement on sufficient food. Food insecurity occurs, due to household vulnerability in the process of food entitlement. Food

security in a household therefore takes place when there is a permanent entitlement to enough food for a normal and healthy life of the household members within the society.

Ownership of material, human and social resources by the household in Africa and the LDCs guarantees food entitlement. Material resources include physical capital, that is, animals, land, implements, working capital, savings, and so on, whereas human resources entail the labour force, technical knowledge and health of the members of the household. Social resources include social position of a household, relatives, friends and the relations of production, a household engages in and upon which the household depends. Maximum utilisation of human resources in Africa and the LDCs depends on health, education, training, policies and opportunities of the household members. Social resources in most cases minimise the vulnerability of the household. Combination of the material, human and social resources in a household in the LDCs guarantees food security. Labour as a human resource in Africa, is sold for a wage and also used to cultivate crops. Households sell bananas for example produced from the farm and buy other foods like maize. At the same time, a household member who, cultivates a neighbour's farm, eventually takes food to the household. The starting capital of a household, determines the amount of food the household is entitled to get. A poor household in the LDCs with less capital, is food insecure. Poverty then, is the major case of household food insecurity, which is brought about by the failure of material, human and social resources to build a household livelihood in Africa and the LDCs.

However, vulnerability is also found in some LDCs households, which are not poor. This is caused by the failure of the supporting mechanisms. The failure could be a result of drought, sickness, local conflicts, crop diseases, refugee influx, and so on, occurring in the society. Social and physical environment, impose limitations to poor households; hence, the need for survival mechanisms depending on scarce available resources. It is now, a question between immediate consumption and the future consequences. Such African and LDCs households are faced with an enormous task of fulfilling minimum food needs, social obligations as well as conserving the future

productive capacity (Khogali, H:1998). At this particular point, satisfaction of the household basic needs determines the household's access to food. Lower consumption in a household is a deliberate move of combating other needs. Food and other basic needs are supposed to be attained in most cases without loss of dignity and need also to be culturally acceptable (Beerlandt, et.al., 1995).

Achieving food security in an African rural household entails a long and laborious path. The steps involved include first an assurance that there is enough food available. This is done through food production by the household, purchasing of food or donation and from own stocks. The second step is then the realisation of the household access to adequate and appropriate food. Third, is the household procurement of enough food, which is also appropriate. The next step is the household members' ingestion of enough and appropriate food which has also got to be digestible (Christiaensen, 1995).

These steps when interfered with do cause problems, the end result of which is, household food insecurity. Sen, (1981) observed that hunger and malnutrition were due to lack of access to food, and famines appeared often in an environment of food abundance. Household food security entailed more than food availability. However, even access to food does not guarantee household food security if it is not procured.

The procured food needs to meet the quality aspects as well as cultural acceptability, whereby its procurement does not entail loss of dignity or destroying the realisation of other basic needs in the household. Maxwell and Smith, (1992) rightly conclude that. It is not just the quantity of food entitlement that matters, but also the quality of entitlements. Thus, the highest state of food security requires not just secure and stable access to a sufficient quantity of food, but also access to food that is nutritionally of adequate quality. Food in African and the LDCs has to be culturally acceptable, procured without any loss of dignity and self determination, and consistent with the realisation of other basic needs.

Household food security therefore is not only objectively measurable but also subjectively observed. Maxwell et.al. (1992) support this view by contending that, food insecurity is not an objectively defined level

of access to food or quality thereof, but rather the level or quality that people perceive to be inadequate in a society. Household food security is not tantamount to good nutritional condition in a household. Good nutritional conditions calls upon health, preparation of food, sanitary environment and nurture especially to children. This research has limited itself to the analysis of household food security coping strategies; hence, it is not able to dwell on the nutritional aspects fully.

Anthropometric indicators however, have revealed that malnutrition is caused by inadequate food ingestion. At this point it suffices to mention that food insecurity within the African household, poor child care, defective sanitary environment and inadequate health provisions combine to cause malnutrition and mortality in the household. This is so, especially if there is a clear presence of inadequate food ingestion and disease. In this way, therefore, rural African household food security cannot be interpreted as a decrease in food ingestion let alone a decline in the anthropometric indicators. Household food security cannot be guaranteed by satisfactory anthropometric results for these do not reveal information on the vulnerability of the household; that is, the risk of losing access to food. Identification of household food security in Africa by the use of anthropometric indicators has to be applied with reservations. Christiaensen, (1995) has it that access to food depends on its availability. A household is not keen on the fact that there is enough food in the country, region, district, division, ward or even in the village. What the household is keen on is that it can make a claim on that food. Even though it is true that no claim can be made on food that is not available, it is also true that the availability of food does not guarantee access to it. Sen, (1981) as already cited, established that famine often occurs in spite of the adequate availability of food in the country or region. Therefore household food insecurity is caused by the failure of the access to food.

Security, is another factor in achieving access to food in an African rural household. Security is related to risk, that is, the possibility of failure of the entitlement to food and time as against the risk of failure in present and future. A secure household is able to procure enough food at present and in the future. Dynamism of food security depends on time, which even links it to sustainable development. Chronic food

insecurity in a household is thus a habitual high risk of a household not satisfying its own food needs; hence, always bordering on famine. Temporary food insecurity in an African rural household is a result of temporary decrease in the security concerning the entitlement to food, which is short lived. Temporary food insecurity is always at regular intervals such as times before the harvest, windy months for the fishermen, and so on.

The sensitivity and elasticity of the temporary food insecurity, sometimes leads to chronic food insecurity (Christiaensen,1995). In this way, food insecurity generates a problem. One has to understand how a household does procure access to food, in the present and the future. As earlier stated, a combination of material human and social resources leads the household from production or exchange to entitlement to food. If more food is procured than is needed to meet the basic food requirements, then the surplus is invested in the material, human and social resources. Swift, (1989) rightly observes that investment in the social resources covers a wide range of areas, which include, inter alia, stock friendships, common among African pastoralists, whereby animals are loaned between kin and friends, other sorts of loans and gifts, traditional tribute and tax payments, contributions to community funds and resources, and the payment of taxes and other contributions to government.

Most of the stock resources are according to Swift, (1989) cashed in for procurement of food in times of production failure or exchange entitlements. In fact Swift, (1989) concluded that, many of these assets are cashed in when households face a crisis: production assets are sold, granaries are emptied, jewellery is sold, bank accounts emptied, loaned animals recalled, labour debts called in and community support mechanisms activated.

The poor rural African households are the ones, which get an acute shock, for owning the least resources. Production, exchange and assets affect the consumption of enough food. Households whose entitlement to food is realized through production are constantly exposed to the vagaries of nature such as drought, inundation, animal pests, plant diseases, shocks in the economy, price fluctuations on the market, wars, conflicts and so on.

Sensitivity to shocks, flexibility and elasticity determine the extent to which the household can resist risks and vulnerability. Davies, (1993) makes an observation that most households in Sahel countries, have evolved in the last years from being very elastic and relatively insensitive to being little elastic and very sensitive, hence, a decline in food security. >From this observation, one can conclude that the least vulnerable households are very elastic and a little sensitive, whereas the most vulnerable households have a limited elasticity and higher sensitivity. Maxwell, et.al.(1992) observes that, In the driest areas, the desert edge, where variability and risk were greatest, geographical and occupational mobility were also greatest. When a major drought struck, local livelihood systems responded with great flexibility, the economy tracking the down turn in the ecology by contraction, sloughing off people to other production systems and other places where the drought was less severe, activating wide geographic and political networks of support; when the environment improved again, these changes were reversed.

The Bottlenecks to Household Food Security in the Great Lakes. Causes of Household Food Insecurity

There are many causes of household food insecurity in-the Great Lakes Region, but mention will be done for only two.

a. At intra-household level, there are feeding patterns, or eating habits which range from ugali (maize meal) to cassava, millet, sorghum and boiled bananas, potatoes or rice. These foods are eaten with either vegetables, beans, meat, eggs or even fish. Absence of the culturally acceptable staple food mentioned among the above foods, is seen as food insecurity by the household.

Alongside the feeding patterns, are diseases, which are widespread in the Great Lakes Region, malnutrition increases the risk and severity of illness, and at the same time the illness introduces and intensifies malnutrition. There are higher incidences of malaria and HIV/AIDS which are eroding labour and enhancing household food insecurity in the rural areas.

Then there are sociological and anthropological factors. The socio-economic status of the household, especially income level, determines access to enough food. The education of the mother in

the household, sometimes determines the food security of the household. An educated mother knows how to balance the food in the household to stretch a big distance in the season; hence, access to enough food.

b. At micro or inter-household level, there are limited household resources. Also, there is unequal distribution. The available household resources such as the common hand hoes, are exhibited by low productivity due to the low capacity to produce. Labour constraints found in most households, is a result of the elderly and widows engaging in agricultural activities.

The Bottlenecks to Household Food Security.

Most of the rural households in the Great Lakes Region are poor; hence, lack of food security. Reasons abound as to why rural households stay poor but can be deduced from household to household, especially for the small holder ones. Their own production and increase of off-farm sources of income are among the plausible solutions to food security in the household. The three main bottlenecks in household food security in the region are:

a Physical or ecological bottlenecks.

The region is characterized by low and erratic rainfall. Two thirds of the region receives less than 750mm of rainfall as against a quarter of the region which receives more than 1,000 mm. Cultivation of most food crops needs around 1,000 mm of rainfall. Also there are fluctuations of rainfall and recently in 1997 there was El Nino rains which caused havoc to the agricultural sector. Most of the region's smallholder agriculture is rainfed; hence, a risky activity. Rainfall in the region determines the cropping pattern, farm practices and total household production output.

Then, most of the land area is covered by low-fertility soils with poor physical qualities. There are few alluvial valleys found along the great rivers and the volcanic areas in the North and Southwest of the region, which are exhibited by high fertility of the soils. Most of the households in low fertile areas cannot afford to buy unsubsidised fertilisers. Land scarcity is not a problem to raising agricultural

production in the region. However, there is in some parts population pressure and uneven distribution of landholdings. In this case, some households face a constraint of acquiring arable land so as to improve own production.

b Labour bottleneck

In a household, labour is provided by household members. The amount of labour provided, determines the agricultural activities performed for optimal results. Most of the young people in the rural areas have come to realize that agriculture does not pay; thus, drifting to towns or urban centres in search of jobs or economic activities. The majority of such young people end up as street hawkers, prostitutes, pickpockets, or house girls. The highly affected households are the HIV/AIDS affected ones.

Under the labour bottleneck, there is the division of labour in a household. Women in rural areas carry a heavy work load especially in food production. Men's presence is felt during the harvesting of cash crops (Bryceson, 1988). The division of labour based on gender, burdens most women to the extent of eroding their capacity to produce fruitful results. Women over and above, take care of the homes, children, chicken, fetch water, collect fire wood, prepare food and at the end of the day prepare the bed for the man. Women have little time to rest not even when they are in bed before falling asleep. Carrying a baby in the stomach in most cases is no excuse for not performing household activities given to her under the division of labour.

c Low productivity bottleneck

The Great Lakes Region, has a wide diversity in agro Ecological and socioeconomic conditions which bring about differences in the farming systems. Also, population growth, technological innovations, consumer habits and policy reforms, have a remarkable bearing on household cropping patterns as well as methods of production change. These can be identified throughout the region. The similarity however, is the application of the hand hoe which is supposed to produce food and meet other basic needs of the household.

These hand hoes are used on small farms by most of the households, who happen to be major producers of food and export crops in the region. The good thing is that under normal circumstances, these households have evolved established cropping patterns and risk-avoiding farming techniques so as to achieve food security. These include growing drought-resistant crops, inter-cropping of grains and legumes as well as keeping livestock. However, keeping of livestock in most areas is hampered by the presence of tsetse flies, the carrier of trypanosomiasis which causes sleeping sickness in both man and cattle. The dry, low fertile and sparsely populated areas are practising semi-nomadic pastoralism. The semi-arid areas exercise mixed farming of mainly sorghum, millet and livestock.

While hand-hoe cater for 80 per cent of land cultivation, animal power uses only 15 per cent of agricultural production and the rest 5 per cent of land is cultivated by tractors. The traditional fallow land rotation system earlier practised by households was highly reduced by population growth. What one sees nowadays, is the continuous mono cropping of land surrounding the houses. This has greatly diminished the soil quality and at the same time increased the occurrence of weeds and pests; hence, a decline in production leading to food insecurity. To combat the problem of soil infertility and enhance production, the measures taken since the 1970s include the introduction of higher-yielding seeds, fertilisers, pesticides and herbicides.

However, many households have not readily resorted to the application of those so called modern inputs due to low purchasing power, lack of credit and unpredictable supply of the items. There is also a problem of getting agricultural services and appropriate technologies at the right time. In most cases, these agricultural services are imparted as national agricultural campaigns irrespective of the zones and the seasons. What is evident is that there are not enough agricultural extension officers to cover most of the rural areas.

The three bottlenecks discussed culminate into households failing to produce enough to meet the basic requirements of the households. In-fact, food stocks are exhausted even before the next season or the

next harvest. When such a situation appears, this is what Sijm, (1990) sees as the fourth bottleneck limiting opportunities of the household to cope with food deficits. The cause is the shortage of employment and income-generating activities, coupled with the low levels of remuneration. Lastly, lack of incentives, unpredictable and low prices of the agricultural products as well as marketing constraints add to food security bottlenecks (Mbilinyi, 1997).

The Impact of HIV/AIDS on the Household Production of Food.

To understand the impact of HIV/AIDS on food production by the household, there is a need of analyzing the organization of the household system in the region. The household is a decision-making unit. There are established goals and controlling systems, which provide labour. At the same time, these controlling systems ensure that there is food and cash in fulfillment of the household set objectives. The household farm had crops and livestock, provide the greater part of the household's employment, food and cash. The off-farm activities or popularly known as income generating activities, are competing with farm activities for labour. However, these income-generating activities are providing employment and becoming increasingly more important. These are crucial in ensuring the well being of the households.

HIV/AIDS intervened and affected these different household systems and their interlinkages. Cash and labour flows were mostly diverted to HIV/AIDS, leaving little labour for household farm and off-farm activities. This highly reduced the cash of the household.

The loss of labour in the households in the region can thus be estimated by multiplying the number of burials and the average time spent mourning. HIV/AIDS deaths make up 70% of all deaths. Time spent on sickness and funerals in the area since the emergence of AIDS in 1983, has quadrupled. All households in the village are affected by the HIV/AIDS and are supposed to attend funerals and contribute material support in cash, food and local brew. Due to frequent deaths, the communities have shortened mourning days from 7 to 4 days and non-working days from 4 to 2.

Very few households can afford hired labour. At least 85% of the household do not use hired labour. While hired labour has gone up, official earnings and farm incomes have declined in real terms. Traditional migrant labour areas have also been affected by HIV/AIDS. However, this migrant labour was decreased earlier by the government policies of villagization. The loss of hired labour has affected rich peasant households, old people and women headed households which depend on this labour for harvesting coffee, thinning the banana farms and making local brew. Rich peasant households have coped with this situation of labour scarcity by marrying more wives. On the economic sector, HIV/AIDS has increased poverty, inequality and reinforced polygamy.

In 1988 there was a rush to Zaire for some medicine called MM-1 which claimed to cure AIDS. Most people sold items to send patients to Zaire. Currently the cost of treating an AIDS patients on opportunistic disease has risen. The ability of the household to raise the cash determines the level of care the patient will receive. Most households borrow funds or sell assets to pay for medical bills. The assets which are sold included land, cattle, bicycles, radio cassettes, bananas, fishing nets, fishing boats, motorcycles and many more others. Households had to compromise the nutrition by selling bananas. By selling cattle, one is then denying the household of the source of manure for production purposes. The sell of a household farm or a part of it has a psychological and economic implication. Economically, it takes many years and is a costly operation to establish a farm or kibanja. Psychologically, there are sentimental feelings attached to the household farm. When some cattle and part of the household farm is disposed of, it signals decline of the household farm income in the next season. Most of the households affected by HIV/AIDS have moved one step down the social ladder.

Household food security has been compromised by the reallocation of labour by women from economic activities to caring the sick. The major reason is that women no longer produce enough root crops such as sweet potatoes, yams, cassava, ground nuts and pea nuts. Women especially the young are going for the modern ways of living. It is normal now to find Hair Saloons in villages, thanks to electricity supplied from Jinja, Uganda.. Also, young women have

taken to creaming their bodies so that they can get a brownish look which is for beauty and attraction to men. When a woman has dyed, shampooed and changed her hair as well as creamed her body, it is risky to expose herself in the sunny fields where most of the root crops are grown.

Impact of Hosting Refugees on Household Food Security.

The biggest mass exodus of refugees from Congo, Rwanda and Burundi took place in 1993, 1994, late 1990s and early 2000s. The assassination of President Melchior Ndadaye of Burundi in October, 1993 and that of Presidents of Rwanda and Burundi in April, 1994, triggered ethnic conflicts in Rwanda and Burundi. There surfaced mass killings and a continuing inflow of refugees into Tanzania and Uganda from Rwanda and Burundi.

As the war crisis grew refugees crossed the Kagera River and spilled in Karagwe and Muleba Districts. By mid May 1994, Kagera was recording the arrival of about 4,000 refugees per day. The effect of this massive influx on the local households has been quite dramatic. In the first instance the local community gave food freely to the refugees.

The apparent impact on food security was demonstrated by high prices of the staple bananas, cassava and potatoes as well as local brew. Suddenly, small villages grew into towns within a night with all the resultant effects of unplanned settlements. By 30th September, 1996, in Ngora District alone, there were 489,542 refugees. This number included 411,145 Rwandese, 78,396 Burundians and one Ugandan (UNHCR, Sub-Office Ngora, 1996). Benaco Camp had 159,879 refugees or 32.7%, Lumasi had 113,713 refugees or 23.2%, Musuhura had 80,797 refugees or 16.5%. Kitali camp had 73,553 refugees or 15.0%, whereas Lukole camp had 20,459 refugees or 4.2%. The Burigi camp had 534 refugees which is 0.1% and Keza Camp had 40,396 refugees or 8.3% and Mulozi had 211 refugees or 0.04%. The biggest refugee camp was Benaco.

Also in Karagwe District the biggest camp was Kyabalisa I with 45,724 refugees or 35.5%, Kyabalisa II had 33,616 refugees or 26.1%. Kagenyi had 15,763 refugees or 12.2%, whereas Rubwera

had 24,719 refugees or 19.2% and Omukarilo there were 8,997 refugees or 7.0%.

By June 1994, the Ngara District Executive Director was already sending warning letters to the District Commissioner on expected shortage of food in Ngara district. Ngara with 159,542 residents and with an additional population of more than 350,000 to 500,000 refugees from both Burundi and Rwanda, was expected to have food shortage. The available food was to sustain the current population up to September, 1994. The most affected wards included Mugoma, Kirushya, Kabanga, Mabawe, Nyamiaga, Ngara Urban, Bugarama, Rulenge, Kibimba and Kanazi.

Household Coping Strategies for Food Security in the Great Lakes Region

Food insecurity does not entail depletion of the food stock before the next harvest by a household. There can be reliable alternative sources of getting food in the same household. Rural households have developed coping strategies to cope with food shortages, which have proved somehow capable of working. there are plenty of these methods or coping strategies.

Poor rural households work on the fields of wealthier households in order to get additional staple food needs. Geier,et.al.(1989) found this coping strategy in wide use in Rukwa Region. In this way, the household gets food throughout the year. This can be work in exchange for food or work for cash. It is mostly used during the peak seasons of soil preparation, weeding and harvesting. This coping strategy does not guarantee food security to the household in the long run, but on temporary basis during the current season. Another coping strategy is putting more emphasis on growing cash crops in order to get money for purchasing food at the market. The problem of this strategy is the negligible prices of cash crops which act as a disincentive. Sometimes when cash crops are sold money does not come immediately especially when marketed by co-operatives. The market infrastructure is unreliable; hence, some households resort to across the border trade in order to meet the food needs.

Another coping strategy instituted by the households is non-farm activities such as tailoring, construction, carpentry, handicraft, local trading, beer-brewing, fishing, and hunting. These Activities are carried out by various rural households. Money earned from cash crops and off-farm activities, is used to meet food needs and other basic needs such as clothing, education, health, entertainment and fuel.

Keeping chicken, pigs, goats, ducks and sheep is another coping strategy. For pastoral households, livestock is the source of food. However, even out-migration has been commonly used as a coping strategy. Men and youth migrate to the urban centres in search of work. Also another usual coping strategy used by the rural households is appealing to the governments or other agencies for famine relief as an emergency measure. Liquidation of household assets, especially livestock like cattle and goats is seen as a coping strategy. This is followed in acute situations by resorting to extended family relations. Under this arrangement, there is outward - migration of adults and children to extended families in areas unaffected by food scarcity.

Cassava, sweet potatoes and yams left in the ground as a reserve crop is another coping strategy. When this is taken, another coping strategy then is eating insects, wild fruits, wild foods, wild birds and wild animals as well as wild vegetables for survival. The common coping strategy during household food shortage, is the reduction of the food intake. The frequency of meals is reduced to once a day. Also the quantity of food per meal is also reduced and priority is given to young ones with a hope that things will be better in the next season.

Developmental Actions taken by Governments in the Great lakes Region

Development proposals for the agricultural sector in the region focused on the necessity of enhancing peasant production in the short and medium term. Emphasis was put on annual food crops as well as the supply of agro-chemicals for crop protection, inorganic fertiliser and improved seed. Funding agencies as well as international NGOs, for sustainability reasons, were required to use

the existing institutions at regional and district levels. These few international NGOs were supposed to enhance their implementing activities within the framework of the district plans developed as part of the District Rural Development Programme. These NGOs were called upon to come up with supplementary proposals and not replace existing farming systems. Such proposals were emphasizing the primacy of pests management instead of controlling with pesticides. Inorganic fertilisers were discouraged and propagation was on the use of organic methods of soil fertility.

A sizeable attention has focused on the HIV/AIDS and refugee affected areas of the region. The established International NGOs and local NGOs were around even before the HIV/AIDS and refugee crisis. UNDP, UNHCR and some multi-donor support programmes like IFAD, USAID and NORAD were mostly in the environmental damage limitation in the environment of the region. A few NGOs have been harnessed to reinforce and sometimes even replace the efforts of government agencies in the socio-economic settings of the region. Less than ten per cent of the few NGOs were really active in the agricultural sector.

Prevailing Agricultural Recommendations in the Region.

There have been enormous recommendations both by the governments, experts and the like on improving agriculture in the region. However, solid research on current practice cannot be the basis of agricultural recommendations. The region has seen the popular Farming Systems Research which is an interaction between research and extension. These Farming Systems Research Projects take off with the pre-conceived ideas that crop researches on banana, have trial results that only need to be tested as "on farm-trials".

Other crop researchers, assumes that their results need to be implemented by peasants through the Extension service. This can be seen as "shelf-technology." Shelf-technology has proved a failure in most circumstances. If anything, this exacerbates the situation further by interfering into the peasants' established coping strategies. When such a situation is reached, then, there appears a communication breakdown between research and extension. Conventional education and specialization, forces researchers to be concerned with their field

of professional interest. Therefore you get interests in a certain crop and a certain plant disease. These recommendations cannot embrace whole agricultural practices in the area. No, wonder that even plant pathologists have been involved in giving recommendations. Plant pathologists are only interested in the scientific aspects of their research. Infact, it is not the concern of the plant pathologist whether or not the research findings are relevant to the peasant, economically or practically.

The Agricultural extension activities which the agricultural sector depends on in the region, are poorly documented. This is due to limited finances for carrying out extension activities. It is also unrealistic to make a general agricultural recommendation for the region. The soil and climatic conditions in the region vary considerably. How can one formulate recommendations based on trials in one of the ecological zones. This has at the utmost added disturbances and interference in the coping strategies at household level.

The nature of the number of crops grown in the region, makes it also impossible to make a general conclusion.

CONCLUSION AND RECOMMENDATIONS

Utilising the existing agricultural activities and Coping Strategies.

Trials on crops, fertilisers, insecticides and pesticides need to continue and at a rapid speed. However, these trials ought to be conducted in the areas the recommendations are meant. If the efficacy of a pesticide is demonstrated in a screen house or a laboratory, then the superiority has to be checked on a peasant's farm.

The shift from banana to annual crops like maize and root crops, pose a threat to the ecological balance of the system. Not only that but it interferes with the established historical coping strategies. So, such a move has to be viewed with caution.

Scaife (1966), revealed that application of chemical fertilisers in some parts of the region was hazardous. Therefore, there is a need of encouraging organic fertilisers like Farm Yard Manure (FYM), coffee

husk, mulch and composite. These in fact show an increase in food production. At the same time the application of fertilisers that enhance soil acidity "should be discontinued, on household farms. On-farm trials culminate into contact between agricultural experts and the peasants. This leads to clear understanding of the system. Therefore, there is a need of planning the off-station and on farm trials. Transportation can be overcome by co-operation with other programmes and good planning.

At the Planning and Policy levels.

Planning and policy responses have to be developed in relation to the situation as it is observed. In this way, households involvement at grass 'root level in policy and project development is essential . It is quite difficult to observe the impact of the hazard in most rural households. This is due to the fact that the hazard may vary quite dramatically over small distances or from household to household. This implies a problem for the future methodology to be applied. In that case, there is a need for involving the households in the diagnosis and programming if resources are to be effectively utilised.

One has to distinguish the hazard impact on labour availability from other background effects such as local labour market operations. Effective programs are those which will help households to cope with labour loss. The only viable solution is to work with the households, to develop responses which can facilitate labour economising responses. These can be in production such as the inter cropping or introducing new varieties and technologies. At gender level women have to be assisted in their spatial and social mobility when it comes to marketing. There should be an encouragement of assistance to support women groups.

The Role of Multilateral Agencies, Bilateral Agencies, Foreign NGOs and Local NGOs.

The Great Lakes Region is boasting of the concentration of donor agencies and NGOs. However, individual sustainability as well as organisational management of those, is not known at regional level. In spite of the concentration, much is still desired. Direct economic, empowerment of the population from donor funds, accounts to only

5% of the total budget. Only 5% of the donor money goes into community development, income generating activities, poverty alleviation activities and provision of rural credit. This calls for a more realistic approach to sustainable development which will see most NGOs being discouraged from being emergency oriented.

Donors have to concentrate on the maximisation of real income of the households and not the maximisation of the agricultural production. Maximisation of agricultural production in most case benefits wealthier households, which own better arable land and production resources. The vulnerable households are left out and do not have anything to boast of in terms of production. Maximisation of income in most cases targets the low-income households. Maximisation of income will culminate into access to land, cost saving technology, inputs and technical assistance, as well as access to the market. In this way, the contradiction between food and cash crops can be solved once and for all. Households will ensure food security irrespective of whether they have cultivated bananas, maize, cassava, coffee or both. When households are given chances to adopt cash crops that offer higher returns, they tend to adopt these crops quickly. However, these households also maintain adequate resources in food production for household consumption as an insurance mechanism. In circumstances where markets are unstable, the joint promotion of food crops and cash crops is essential in order to enhance household food security.

Household economic growth and food security, depend very much on the increase in income of the household. Household food security will also need efficient food production, marketing, access to productive resources, primary health care and transfers either in cash or food. Donor agencies have also to concentrate on labour intensive programmes such as establishing social and physical infrastructure. In turn these will alleviate food insecurity, unemployment and lack of infrastructure. In this cases, credit supply has to be established. Access to credit by households stabilises consumption. Credit on small scale have to be encouraged. However, donors have first to come up with credit technical advice and assistance in the construction of the institutional capacity. This credit scheme can follow the example of the Grameen Bank in Bangladesh. The Grameen Bank was established in 1983 in order to procure access to

credit for the rural poor who do not dispose of a guarantee. It is believed that through the Grameen Bank, the capital accumulation of the poor has since substantially increased. The amount of borrowers of cattle in Bangladesh increased by 26% per annum, new jobs were created for the poor especially women and income was increased.

Donor agencies, can also put in as regards agricultural research. This has to go hand in hand with irrigation promotion as well as mixed cultivation which contributes to risk reduction.

Caring for PWAs and Orphans with a Gender Perspective.

In areas with a high seroprevalence of HIV/AIDS, households prefer to have patients at home until they die rather than take them to hospitals due to cost sharing in the health sector. Costs in hospitals is an uphill exercise to households. NGOs have to come up with Home Based Care programmes - HBC. Hospitals do not even have capacity to admit all the patients. Women mostly prefer to nurse the patients at home as this reduces hospital visits.

NGOs in HBC have to provide training to household members with PWAs or orphans in the basic skills of handling and taking care of patients. In this way methods of avoiding the risk of infection have to be taught. Also NGOs have to provide resources to households in-liaison with hospitals. These can be food and medication as well as bedding for the patients. Meaningfully NGOs have a vital role to play. Also NGOs have to embark on real HIV/AIDS prevention measures, through health education. This has to be co-ordinated by the health departments or hospitals in the region. This has to include the promotion of social activities as well as door-to-door awareness - raising campaigns.

Schools have to be supported to provide health and HIV/AIDS education. In the region, some households still regard HIV/AIDS as a kind of witchcraft. Sexual promiscuity among most of the people should be discouraged by revealing the dangers unsafe and promiscuous sex poses. The cultural tradition of sexual cleansing should be discouraged. People have to be educated into getting psychological satisfaction from one partner.

Women form the backbone of the agricultural activities in most households. HIV/AIDS morbidity and mortality renders women vulnerable in the production of food and household duties. Women, especially those who become household heads in the event of the death of a husband or divorce have to be assisted. First and foremost is that land and customary inheritance laws should be reviewed. Women land ownership should be categorically stipulated. Laws do not discriminate against women with regard to land rights. However, there are traditional or customary laws often against women. Women do not inherit land in the region especially family lands. In this case, state laws have to prevail over customary or religious laws.

Women have also to be advised and assisted by the governments, NGOs and donor agencies on transportation, storage and marketing of products. In the region, women have no right on the sale of coffee or banana local brew in some areas. These are the principal cash earners in the household, though still in the custody of men. Also women have to be helped to gain access to draught power, farm implements and other inputs. This can be done through their work groups. In remote areas, women have to be provided with extension services.

Currently, men are the ones who receive such services but practice has shown that it is the women who do a lot of agricultural activities.

Most important is that widows have to be encouraged to form their groups. These groups can collectively produce the coping strategies for the members in individual households. Women have to be encouraged to use bicycles. This will ease the burden and time in undertaking farm activities. Men but not women have bicycles. Women can use these bicycles to transport firewood, water and agricultural products to the market.

Educational campaigns have to be mounted so as to appeal to the peasants to change the way they live and how they love. This will call for abstinence and fidelity. There should be an urge for caring and avoiding non-discriminatory behaviour against those already infected with HIV. This will enhance food security at household level because everybody will be participating in production on reciprocal terms. Serious and open discussions on AIDS will not just put a brake on new infections but will ensure also the well-being of those already

infected with the virus. This will be one of the several household coping strategies for household food security.

General Conclusions.

Relief programmes had it that disruptions of the usual pattern of development is a side effect of emergencies, hence, population displacements. International humanitarian aid is supposed to be temporary. However, relief programmes as enhanced by some donors and international NGOs, have blocked social reconstruction. If anything, relief funds have brought about a bureaucratic humanitarian system which keeps the populations dependent on it as well as inhibiting the search for permanent solutions (RSP 1996).

Humanitarian agencies are always short term adventures whereby international aid especially in HIV/AIDS and refugee affected areas does not solve the whole problem. In line with the above argument, food aid is supposed to be controlled by time and not needs. Meaningful humanitarian aid addresses the root causes and problems of reconstruction in an area. To succeed in addressing the root causes, a meaningful NGO has to access the needs and come up with solutions based on household coping strategies. An international NGO is duty bound to work with local institutions or co-opt their workforce. There is no need of bossing around or working as if the governments do not control the situation. There is no short cut to perfecting the job by an international NGO. An international NGO has to pull down an artificial wall between relief and development when dealing with HIV/AIDS, refugee affected areas and the like in the region. To break the ice, there is a need for a meaningful dialogue at all levels of government and humanitarian agencies or NGOs especially in the agricultural sector.

Agriculture will continue to be the backbone of many developing economies. Any meaningful assistance has to be directed to the agricultural sector. The handhoe has hampered the development of agriculture in the region; hence, the predominance of the subsistence economy of producing from hand to mouth. Meaningful change has to bring in scientific and technological revolution in agriculture. Donors notwithstanding, international NGOs are nicely placed to play a meaningful role in this aspect.

If one wants to detain youths in the rural HIV/AIDS and refugee affected areas, then a vicious circle of poverty has to be broken. The vicious circle is that youths run to towns trying to escape poverty experienced in the rural areas. This action increases rural poverty for the able bodied producers will have drifted to towns. Increase in rural poverty accelerates rural-urban migration (Shayo,1997). This vicious circle of poverty, if not broken will make the whole nation go under the drain as a result of famine and the attendant donor fatigue which could result in feeding on contaminated food (Shayo,1997).

International NGOs if they really want to play a meaningful humanitarian aid, have to help phase out the handhoe in the agricultural sector. Currently no NGO is attempting to do this, especially in the refugee and HIV/AIDS affected areas. These NGOs do capture the imagination of most peasants due to their compassion, conviction and commitment to whatever they embark on. The NGOs have minimum bureaucracy and take pride in delivering efficiently and in total. These international NGOs have to enter the agricultural sector squarely and impart adequate knowledge of replenishing soil fertility in areas which have since become poor. The campaign of preventing soil erosion has to be mounted among peasants as one of coping strategies instituted by the households.

Food aid is a humanitarian activity and has to be emphasised. However, history shows that no society has liberated itself from poverty by relying upon food aid. Food aid does not solve the problem of food insecurity. International NGOs can really be doing a commendable job if on top of distributing food, it could establish agricultural activities in the HIV/AIDS and refugee affected areas. These agricultural activities have to cover the important units, namely agricultural extension services, inputs, implements, research, surveys, studies, veterinary drugs, equipment, training and livestock messages.

The local governments, private sector and NGOs are purportedly seen as collaborating in implementing the refugee affected areas programme based on decentralisation policy. Practice still shows that everything is centrally controlled.

Even the current governments planning structures do not easily allow one to enter freely and lend a humanitarian aid. In this case, realistically the governments have to bend and allow serious NGOs of international status to come in and help meaningfully. One can expect the stiff neck of the governments on this issue of not allowing pockets of development in the same area. The governments have to agree to learn from what others are doing.

The donor-driven programme is the appropriate term for this HIV/AIDS and refugee affected areas programme. The programme stands to fall apart when funds given by donors run out. International NGOs are reputed for sustainability if given free movement at all levels. How can an NGO enter into this? It is clear that NGOs without funds are not active participants but mere implementors of already agreed upon resolutions. In this way, the possibility of looking into household coping strategies stands no chance. International NGOs in collaboration with the private sector have to reinforce if not replace government agencies in general extension services as well as agricultural input supply.

In the refugee and HIV/AIDS affected areas, crop improvement and soil fertility are of major concern. The governments agencies have no enough capital and staff to manage this problem. Agronomists available are not enough to cover the whole area. There is a need of strengthening and developing the Integrated Pest Management (IPM) strategies. International NGOs have the experience and the potential to develop strategies of a wide range of crops needed for tropical climates. The NGOs can at least act as the centre of information exchange, techniques and experiences. These NGOs can contact agencies and institutions that have expertise on a range of crops and specialist disciplines. These international NGOs can complement the importation of improved materials for evaluation under peasant conditions. Peasants in affected areas need intensive on-farm testing and evaluation according to the agro-ecological conditions of the area.

NGOs can also act as a co-ordinator between IITA's East and Southern Africa Regional Centre at Namulonge in Uganda.

In the Agricultural extension services, government departments cannot provide adequate coverage in the area. A number of villages

especially in affected areas have to go without extension services. At the same time, new agricultural extension services are highly needed. Government agencies have to give in and allow the NGOs to share the responsibility.

Livestock production is also facing many problems but the major ones are various diseases and nutrition. NGOs have a lot to contribute in this area in order to complement the government agencies activities. NGOs can contribute to raising the required animal protein in the diet of the traditional livestock sector. This can indirectly contribute to household food security as well as increased income among the peasants. Donors can contribute finance which can be utilised by NGOs to control livestock disease; hence, a reduction of livestock morbidity and mortality. Likewise the Farming Systems Research needs to be assisted so as to develop the tests on fodder production points in the affected areas.

The government livestock budget does not integrate the pastoral production system. The assumption is that pastoralists are small and based on natural grazing. NGOs can enter this production exercise by heifer production. Here what can be supplied is livestock equipment and supplies such as A1 kits, semen and hormones. Also training for the peasants can be enhanced especially in crossbreeding heifers by A1. NGOs can establish for example a heifer-in-trust scheme whereby peasants can be given heifers on credit.

Pests and diseases have highly reduced the quantity of available food in the area. NGOs have good access to the centres of the supply of medicines especially those from the North. Bananas are always declining due to soil fertility, nematodes and banana weevils (*cosmopolites sordidus*), Fusarium wilt or Panama Disease (PD:*Fusarium oxysporum* f. *cubense*) and the Black Sigatoka Complex (*BS:Mycosphaerella fijiensis*). NGOs can establish appropriate researches in this area, and come up with adequate field solutions. Currently the donor fund is used to import Gros Michel cultivar so as to replace the East African Highland bananas (EA-AAA) cultivars. However, this job can be managed efficiently by NGOs which have access to the source of supply.

Banana weevils are killed by a spent pseudostems which is not widely used by peasants. Pared corms are assumed not to be easily infected by weevils or nematodes, but it is a tiresome exercise. The application of carbofuran granules is also an expensive activity. Here also, international agencies and NGOs in the field can come up with field-tested material derived from adequate research for the rehabilitation of bananas, the staple food of the area. Coffee, the main cash crop in the area has been attacked by Coffee Berry Borer (CBB: *Hypothenemus hampei*). Phytosanitary application to control CBB is not widely used. NGOs can engage in training the peasants on how to maintain farmgate quality standards of coffee. To conclude, one can view the whole exercise in the region as geared towards development. Development is perceived in terms of the people's capacity to master the forces which have the impact or bearing on their life. NGOs, due to the skills and attitudes embodied in them are nicely placed to play a role in development. If development of the agricultural sector is to succeed in the affected areas of the region, NGOs have to be spread throughout the peasant community. These NGOs, have to be given enough resources and commitment as well as adequate mandate to act. However, these NGOs have to use the existing household coping strategies as a takeoff. The success of NGOs lies in the realisation that there is no development from above. Most NGOs do come out with grassroots empowerment methodology which is currently a major means of bringing about development.

Decisions to establish a project generally, have to take into account the irreversibility of commitment. NGOs stand a better chance for irreversibility because failure, cannot be afforded for credibility purposes. NGOs have to apply Hirschman's doctrine of Hiding Hand in development. This doctrine calls upon liberally underestimating the project difficulties which can be minimised by flexibility. Commitment is a result of creativity whereby difficulties cannot prompt abandonment which is widely practised by government departments. Government departments as opposed to NGOs, can survive as a dead weight to be carried by the economy until attaining an uneconomic offspring. No funding agency can fund an NGO which is a dead weight. Therefore NGOs always strive for responsibility and accountability.

As a general conclusion for the developing countries in general and the Great Lakes Region in particular, there is a need for governments controlling the size of bureaucracies. There is also a need for minimising governments activities. In the rural sector, there is a need to encourage the private sector, voluntary organisations, national and international NGOs. To attain household food security, the ongoing coping strategies have to act as a springboard for action. In the 21st century, the rural sector has to be mobilised effectively, for it constitutes major but expensive and under-utilised national resources. Current management of existing governments departments cannot cope alone with the main rural development challenges of the twenty-first century; hence the need for a meaningful co-operation of all development agents.

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