



***The Importance of Gender in Agricultural Policies, Resource
Access and Human Nutrition***

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Introduction

This paper presents and discusses a case for gender in development. It analyses the differential inputs of men and women in agriculture, the level of facilitation of both groups in terms of finances, farm implements and knowledge and how benefits from their respective inputs are finally distributed. Inconsistencies within this pattern strengthen the case for gender in development.

The first part of the paper discusses the concepts of development, gender and human nutrition and establishes a common thread between gender, human nutrition and development. Nutrition is considered an outcome of development and its level and form are influenced by the type and quality of food, the level of care and the level of health. These three variables are highly gendered and this is reflected in the paper.

Section two looks at the role of agriculture and in the African economies and how agriculture remains the backbone of development in the region.

Section three analyses the role of women in agriculture and makes a conclusion on who the African farmer is.

Section four analyses gender disparities in agriculture and human nutrition and discusses their implications on development and human nutrition.

Section five Highlights the importance of Gender in Agricultural Policy, Resource Access and Human Nutrition and makes a case for gender in agricultural policies, resource access and human nutrition.

This paper examines and discusses the importance of gender in overall development but more specifically the agricultural policy, resource access and nutrition. It identifies development as the common thread between these variables as it impacts on them and they in turn impact on the same.

Within this paper, development is defined as the process of generation of goods and services which are in turn fairly distributed to those who participate in the process thus allowing for active involvement of all to generate goods and services and where the benefits of development are shared equitably. It assumes that the entire human capital is facilitated to contribute to development and that all have a say in what happens to benefits accruing from such development.

This paradigm of development is founded on the principles of participation and equity. It promotes fair distribution of work, access and control of production resources such as skills and other inputs needed to be effectively and efficiently do their work and benefit from the same. This definition therefore goes beyond the Gross Domestic Product (GDP) and Gross National Product (GNP) which stop at "long term increases in real output per capita" (Ness and Golay, 1997). It recognizes that distribution of wealth is central to ensuring the welfare of all.

The statement below, made by UNICEF in 1999 supports the principle of people-centered development whose single most important measure is human development. It states:-

"The day will come when nations will be judged not by their military or economic strength nor by the splendor of their capital cities and public building but by the well-being of their peoples: by their levels of health, nutrition and education; by their opportunities to earn a fair reward for their labors; by their ability to participate in the decisions that affect their lives; by the respect that is shown for their civil and political liberties; by the provision that is made for those who are vulnerable and disadvantaged; and by the protection that is afforded to the growing minds and bodies of their children".

UNICEF: The progress of Nations, 1999

In the majority of developing countries, food production, which provides the basis for livelihoods for majority of the people, is almost synonymous with development. For these countries, agriculture is the backbone of their economies. This then explains why the Sustainable Agriculture Initiative Report (Nehru J. 1999) ***"Everything else can wait but not agriculture"***. This statement, made on the eve of the 21st Century continues to underline the importance of agriculture in the large parts of the world.

While women produce the bulk of domestically consumed food, particularly in the Sub-Saharan Africa, agricultural policies which guide the focus of research and resource allocation are more than often not gender sensitive. Rural women are

generally not involved in selecting agricultural research topics, and therefore the research agenda does not focus on technology that is suitable for small farmers and workers on foods such as cassava and millet which loom large in poor people's budgets (UN- Economic and Social Council, 1999).

The status of nutritional is an extremely reliable barometer of the social status of the people. It tells us how well we are doing in the areas of household food security, care of children and their health. Nutritional status of any segment of the population is greatly influenced by access to resources, knowledge and time..

At its most basic level, malnutrition is a result of disease and inadequate dietary intake, which usually occur, in a debilitating and often lethal combinations. A lack of access to good education and correct information is also a cause of malnutrition. Without information, strategies and better and more accessible education programs, the awareness, skills and behaviors needed to combat malnutrition cannot be developed. Despite this good understanding of the factors of good nutrition, malnutrition levels continue to rise thus making the benefits of the powerful benefits of sound nutrition still remain elusive.

Malnutrition has major implications for development. In infancy and early childhood, iron deficiency anaemia can delay psychomotor development and impair cognitive development, lowering IQ by about 9 points. Anaemic pre-scholars have been found to have difficulty in maintaining attention and discriminating between visual stimuli. Poor school achievement among primary school and adolescent children has also been linked to iron deficiency. Low birth weight babies have IQs that average 5 points below those of healthy children. Malnutrition robs the economy of its vigor, inflates health bills and develops a consumer rather than a productive society. In 1990s alone, the world-wide loss of social productivity caused by malnutrition amounted to almost 46 million years of productive disability-free life It is a shaky ground for any country to build its future on half capabilities derived from preventable causes. The empowerment of women is of central importance to improving nutrition of both women themselves and their children.

Malnutrition is a global problem and UNICEF has referred to malnutrition to it as the "**Silent Emergency**" which results in more than half of all child deaths worldwide- a proportion unmatched by any infectious disease since the Black Death (UNICEF, 1998). Its ravages extend to the millions of survivors who are left crippled, chronically vulnerable to illness and intellectually disabled. UNICEF directly links malnutrition to inadequate dietary intake, caused by insufficient access to food, in adequate maternal and child care practices and poor water/sanitation and inadequate health services. These multiple factors explain why a child who eats enough to satisfy immediate hunger can still be malnourished.

Resources are here broadly used to include money, skills, time, and farm implements among others. Access and control over resources is critical for those

with responsibility for family maintenance. In most cultures, women are the key providers of health and sustenance in their families and constraints of resources and knowledge has major implications for development. This issue brings us to the issue of gender.

Gender is one of the most misunderstood development variables partly because of its late entry into development but also because of the cultural environment in which it is situated. To many, gender is about women and has minimal relevance to development. This is however not what gender is all about. It is about men and women and how they relate to each other in terms of roles, responsibilities, obligations and entitlements. It defines what men and men do, the degree of access, control and authority to resources and decision-making and consequently, the abilities to discharge these duties effectively. Gender is socially constructed and therefore lends itself to change, albeit slowly. It cuts across sectors and has no business of its own (USAID, 1989). Current patterns show that women work for much longer hours than men, have limited access and control over production resources and only modestly benefit from the input of their work. This pattern has major implications for development. Productivity is reduced, child care suffers and ultimately the entire household welfare.

The current gender relations and patterns reflect major disparities in division of labor, access to and control over resources and decision-making on development benefits and these have implications for sustainable development and human welfare.

According to Diana Elson, (Undated) of the University of Manchester, gender inequality, apart from being unfair, is also costly, not only to women but also to men. The cost can be measured in low economic efficiency, low output and low development of people's capabilities and well-being. Research shows that reducing gender inequality in Africa could significantly increase agricultural yields and that correlation exists between a country's failure to invest in education for girls and low levels of Gross National Development (GNP) and additionally, that increasing income of mothers has a more positive impact on nutrition and health than does increasing income for fathers.

Integrating gender in policies and making development resources available to women promise great gains to the families and entire economies. It is not just a matter of social justice, it also about good economics.

On their part, policies provide guidelines and frameworks for development, nutrition monitors the state of that development. Good nutrition requires that people who provide care have the time to do it, have the knowledge to do it right, have control over resources necessary such as food and have access to good health. With globalization and removal of safety nets such as free medical care, those responsible for ensuring good nutrition need to have access to and control to incomes necessary to purchase the relevant services.

National Agricultural Policies have profound impact on the ability of farmers to produce and sell their products. embody the vision, frameworks and programs necessary to accomplish the vision. Frameworks could include pricing, marketing, research and extension, processing and marketing. Gender sensitive policies would identify the clients and partners, their needs and the support required to help them maximize their potential.

2.0 THE ROLE OF AGRICULTURE GLOBALLY AND IN THE AFRICAN ECONOMIES

In the 1999 Sustainable Agriculture Initiative report, Nehru, (Nehru J. 1999) states that "**Everything else can wait, but not agriculture**", a clear indication of the sustained importance agriculture in many parts of the world where agriculture plays a key role in the economies and livelihoods of many countries and regions.

Women account for more than half the labor required to produce food in the developing world and about three quarters in the Sub-Saharan Africa. In the Sub-Saharan Africa, women account for more than half the labor required to produce food in the developing world and about 75% in Sub-Saharan Africa (sustainable agriculture).

In the African economies, agriculture is the single most important activity in (and the food sector in particular). It engages over 70% of the population. In Kenya for example, agriculture contributes to 30% of the National Gross Product (GNP) (Onyango, 1994), producing most of the national food requirements and generating 60% of foreign exchange earnings (Ministry of Agriculture, 1995). In nearly all cases, poor economic growth is a reflection of an ailing agricultural sector as reflected in the following trends.

During the last 5 years, the agricultural sector in Africa has had mixed performance. The first 4 years of 1990s recorded a mere 1.5% per annum growth- worse than the "lost decade" of the 1980s when the African economies grew at an average of 1.8% per annum. This level of growth was outstripped by the population growth rate and the projected economic growth rates of 4% per annum (UN New Agenda for Development in the 1990s). The key factor behind this drop was the dismal performance of the rural agricultural sector, resulting in hunger and poverty. Toward the end of 1980s, 40 out of the 68% low income, food-deficit countries failed to provide enough food to meet average nutritional requirements. A high level of poverty (47.6%) prevails in Africa. This is classified as population below the poverty line (World Bank, 1992). To fully recover from this deficit, the sector would need to register a 5% annual growth rate.

Women and men in Africa play key roles in the agricultural sector. Data compiled by the International Food Policy Research Institute (IFPRI) indicates that the distinguishing characteristic of economies of sub-Saharan Africa is that men and women play substantial economic roles.

3.0 Role of Women in African Agricultural Economies- Who is the African Farmer?

Women and men play a key role in the development of the agricultural economies of the African continent. Data compiled by the International Food Policy Research Institute (IFPRI) underlines this joint responsibility.

Women farmers however are responsible for as much as 70% of the agricultural output that feeds African families (World Bank 1989b) and contribute approximately 46% of Africa's farm labor. Most of this food is produced in small mixed farms, which hold a variety of enterprises such as crops, livestock, fodder and trees. In addition, women contribute 90% of food processing, fetching water and fuel; 80% of food storage and transport; 90% of the work of hoeing and weeding and 60% of harvesting (Blackden M. and Bhanu C. 1998).

This pattern is corroborated by statistics from a number of countries. In Kenya, women contribute 96% of the family labor and 60% of farm-derived income. Most of the agricultural production comes from small-scale holdings, which occupy two-thirds of the agricultural land. Women control 45% of these smallholdings and of these, female-headed households head 33% of the 45% (Kabutha C. 1998). Similarly in Uganda, it is generally held that women contribute to over 70% of the agricultural workforce (Sebina-Zziwa A. 1995). The United Nations (1975) also reports that women contribute two thirds of all hours spent in traditional agriculture in the Sub-Saharan Africa, three fourths of hours spent in food storage and processing.

While this high level of women's participation is quite common, it is important to note that there are variations between and within countries. In the Sahel region for example, men predominate in agriculture including food security.

What then is the Issue?

The inconsistency between women's contribution and their recognition and support continues to undermine development and to marginalize women in all spheres of development. Much of women's productive work goes unrecorded in the System of National Accounts (SNA). For example, it is estimated that nearly 60% of female activities in Kenya are not captured in SNA compared with only 24% of male activities.

Agricultural economies are also under-performing since women have also been shown to be good producers. Studies have shown that, given equal access to resources and expertise, women often achieve higher yields than men ((Nehru J. 1999). By disempowering women, entire families suffer since women use their additional resources in family welfare. Investing in education, with a focus on women has the potential for immediate and long-term impact on eliminating poverty and hunger.

4.0 GENDER –BASED DISPARITIES IN AREAS OF AGRICULTURE AND NUTRITION

This section presents gender disparities on variables that impact on agriculture and nutrition.

a) Access to and Control Over Land

Few women in Africa have secure and independent rights to land. In most places, women cannot legally or customarily inherit wealth and property including land. They obtain rights to land through men, generally through their husbands or sons.

In Cameroon, the land registers show that less than 10% of women hold land titles and in the North West Province only 3.2% had land, representing barely 0.1% of the registered land mass. This pattern replicates itself in most of Africa (Fisiy 1992). For example, in Kenya in the early 1980s, except in areas with matrilineal systems, women held titles to only 5% of registered land. Allocation of land favors men a lot more than women- 32% of male heads and 25% to male household members as compared to 12% for female-headed households and 4% for female household members. Wanjala et al (1995) reports that “a married woman does not enjoy substantial protection in matrimonial property. Her role remains one of maintaining, tending and improving the various forms of property. When such property is sold, proceeds go to the family and are controlled by the husband. This situation is best expressed by the following statement:-

“Women of Africa toil all their lives on land they do not own, to produce what they do not control and at the end of their marriage through divorce or death, they can be sent away empty-handed”
Mwalimu Nyerere, former President of Tanzania. African Preparatory Conference, Third World Conference on Women in 1984).

b) Access to and Control over Farm Implements

On the whole, women have lower ownership and control over farm implements necessary to improve efficiency and productivity as the table below shows:-

Farm implement	Percentage owning tools	
	Men	Women
Plough	8.2	0.0
Seeder	26.9	0.6
Weeder	12.4	0.2
Multipurpose Implement	18.1	0.4

Access and control of agricultural technologies such as tractor cultivation, improved seed, fertilizer, pesticides and other agro-chemicals display similar disparities between men and women (PHRWD, 1992).

c) Access to Knowledge and Skills- Extension Education

Despite the fact that women are central to the agricultural economies of the developing countries, they are not a focus of extension education. Extension personnel tend to be male, ill paid, ill trained and ill-equipped to provide technical help in gender-sensitive manner (UN ECOSOC). The table below shows the disparities that exist in provision of agricultural extension.

Country	Year	Male	Female
Kenya	1989	12	9
Malawi	1989	70	58
Nigeria	1989	37	22
Tanzania	1984	40	28
Zambia	1986	60	19

Source: Saito et al., 1994

Work done in Kenya in 1994 (Saito et al) recorded 9 extension visits for women against 12 for men. The results revealed that targeting men for extension education is based on two erroneous assumptions, one that men are the farmers and secondly, that whatever they learn will be effectively shared with the members of the family. Studies undertaken in Uganda in 1985 and 1988 (Tadria 1985; Nalwanga-Sebina and Natukunda 1988) found that women's access to agricultural extension services were almost nil. In his study of five African countries, Gill (1985) found that male agricultural extension workers held several interconnected stereotypes regarding women farmers:

- ◆ Women do not make significant contributions to agriculture
- ◆ Women are always tied up with household chores and children
- ◆ Women are shy and difficult to reach
- ◆ Women are more difficult to gather at one point even if their interests converge
- ◆ Women are unprogressive in dealing with innovations

d)Literacy Levels

In much of the developing countries, there are more women illiterates than men. Of the 960 million illiterates adults, more than two-thirds are women. This scenario is well captured by the Kenya situation whose national picture is the sum total of various districts.

	% Literate	% Literate
District	Male	Female
Machakos	82.3	59
Kakamega	80.2	60.7
Kiambu	89	28.2
Kisumu	90.5	85
Meru	78.8	63.6
Kericho	81.4	61.7

Source: Poverty Report Vol. 1, 1997 (Ministry of Planning and National Development, Kenya).

d) Division of Labor

The key characteristic of labor in Africa is that it is highly gendered and that women work much longer hours than men do. Both men and women work on market-oriented activities while most of the domestic work is left to women. Because of this arrangement, women in general work longer hours than men do. For example, in Burkina women work for 14 hours against just 9 for men; in Uganda women work for 15 hours against 9 for men. According to a rural labor force survey carried out in Kenya (1990), women aged 8-85 years were found to perform economic activities to an average level of 26.5 hours per week compared to 24.8 hours for men per week. In addition, women spend 6-7 hours daily on household work. Some of the lowest disparities are found in countries such as Cote d'Ivoire where women and men work for 7 hours and 5 hours respectively.

Average daily working hours in economic activities by gender

		Agricultural	Non-agricultural	Total
Burkinafaso	Men	7.0	1.7	8.7
	Women	8.3	6.0	14.3
Kenya	Men	4.3	3.8	8.1
	Women	6.2	6.1	12.3
Nigeria	Men	7.0	1.5	8.5
	Women	9.0	5.0	14.0
Zambia	Men	6.4	0.8	7.2
	Women	7.6	4.6	12.2

Source: Saito et al., 1994

f). Participation in Decision-making

Women are very grossly under-represented in decision-making positions, both at the national, regional and even community levels. Within the agricultural sector, the situation is fairly the same as an FAO survey (1984) indicated that only 3.4% of the professional positions in agriculture were held by women (Blumberg, 1992).

Female representation in the legislature is about 6% while about 50% of the national cabinets have no women. In the same region, few governments have institutionalized commitments to international women's conventions such as the Cairo, Copenhagen, Beijing and the Convention on Elimination on All Forms of Discrimination Against Women (CEDAW).

Access to Capital and Finance

There is insufficient gender-disaggregated data on this subject but whatever does exist suggests that the poor in general have little access to finance and that women access is much lower than that of men. Women's World Banking estimates that less than 2% of low-income entrepreneurs have access to financial services (WWB 1995). In Africa, women receive less than 10% of the credit to small farmers and less than 1% of the total credit to agriculture (UNDP 1995). In Uganda, it is estimated that 9% of all credit goes to women; in Kenya only 3% of female farmers surveyed compared to 14% of male farmers had obtained credit from a commercial bank. Similarly in Nigeria, only 5% of women farmers compared with 14% of male farmers had received commercial bank loans (Baden 1996). Women face specific gender barriers in accessing financial services, including lack of collateral (usually land), low levels of numeracy, education and the fact that they have less time and cash to undertake the journey to a credit institution (Duggleby 1995; Weidemann 1992).

5.0 IMPORTANCE OF GENDER TO AGRICULTURAL POLICY, RESOURCE ACCESS AND NUTRITION

Globally, statistics and political pronouncements refer to women as farmers and the backbone of their economies but neither the policies nor the practice support that. To a lot of those in development, the farmer is still the head of the household in whose name the land is registered. That is the person who receives the training and advice on how to manage the farm. Women do not own land, have no money to acquire inputs and are often not part of the decision-making on the benefits from the farm. All these work against the assumptions and projections made on productivity and food security.

Micro-level analyses portray a consistent picture of gender-based asset inequality acting as a constraint to growth and poverty reduction. These gender-based differences affect supply response, resource allocation within the household and significantly labor productivity. They have implications for the flexibility, responsiveness and dynamism of African economies and limit growth. The agricultural growth that SSA loses because of gender inequality is not small as it affects food security and well being, contributes to greater vulnerability and further reinforces risk aversion. In East and Southern Africa, highest incidence of poverty is highest in de jure and defacto Female Headed Households (FHH).

Shultz (1989) who indicates that "the private and social returns are high on investments to improve women's economic productivity- particularly education" further echoes this stand. Gender equality is not only a matter of social justice but also good economics. Disparities create inefficiencies, hampers growth and lowers the potential well being of society.

Failure to invest in women is costly while eliminating gender inequalities leads to:-

- ◆ Significant productivity loss due to inefficiencies
- ◆ Reduced large societal benefits
- ◆ Undermines poverty reduction efforts

Significant productivity and nutrition loss is registered through:-

a) Women's Low Access to Land

Economic theory suggests that security of tenure, by offering farmers a potential stream of returns into the future, gives them a stake in ensuring its sustainability, and is therefore linked to higher productivity and better land management (Feder and Feeny, 1991; Panayotou 1993). By reducing farmer risk and raising expected profitability, secure land tenure provides the proper incentive for farmers to use land efficiently and to invest in land conservation and improvements that are closely linked both to productivity and long-term sustainability. Such ownership would accelerate food production for the household and for the market oriented

agricultural activities. The ownership also raises the social status of rural women and facilitates their access to benefits and services such as credit and extension, which tend to be conditional on land as collateral.

Security of tenure encourages long-term investment as illustrated by the a case study of the SEMRY rice project in Cameroon, which found evidence of household production decisions that led to sub-optimal production, and failure to maximize income. This came as a result of conflict on the level of compensation women got for their labor. Because men traditionally have the right to income earned by their wives and men controlled income from rice sales, though women were expected to contribute their labor. In this project, women's willingness to contribute labor to rice production depended on their being compensated significantly above what they could earn from low-return subsistence crops (adapted from Blackden and Bhanu, adapted from Jones, 1986). In a study done in Kenya in 1998 (Kabutha C.) on "Women's Access to Land and Agricultural Technologies", similar patterns of behavior emerged. In the sugar growing area of Awendo where men contract land for sugar-cane growing to the sugar company and often disappear from home after receiving the dues, women and other member of the family sell their labor outside the farm.

All this offer undisputed evidence that insufficient attention to gender issues tends to increase or reinforce gender inequities in ways which can hold productivity and welfare well below the potential (Carloni, 1983; Jones, 1982; Pradhan, 1983a). Failure to invest on the land reduces productivity through inadequate resource management and reduced inputs.

b) Under-utilized human resource

In Africa, women form about 50% of the population and work alongside men in developing and maintaining economies of these countries but they are under-provided in most areas that would boost productivity. Bostid/USAID (1994) stated "no country can afford to under-equip and under-utilize half its human resource—its women. Whether the target is sustainable economic development, developing appropriate technology, improving health or safeguarding the environment, women play a substantial role in advancing the well being of each country and its people.

c) Inadequate support to women's distinctive role in managing investments in children

Clearly, the mother is the most important health worker for her children. Blumberg (1984, 1989b, 1989a, b, d) reports on the existence of considerable data which shows that women with provider responsibilities spend income under their control differently than men. Women hold much less for themselves and devoting it more single-mindedly to children's nutrition and the family basic needs. The evidence indicates that a woman's loss of income not only decreases her household power but also diminishes the family's welfare.

Women who have little education, are poor, have limited skills on childcare and other primary health care aspects and are too busy to give their children sufficient time are likely to have children who are malnourished. In general, greatest nutrition improvements have been recorded where economic growth has resulted in increased household income and resources access by the poor. In Thailand for example where nutrition has improved remarkably during the last two decades, women have very high literacy, high participation in the labor force and a strong place in social and household level decision-making

Putting resources in women's hands is therefore good business in terms of the family welfare. A healthy population is a productive population.

The need to put resources in women's hands is further supported by the evidence that a general increase in men's incomes does not necessarily result in improved welfare of the family but an increase in income directly under women's control on the other hand tends to be spent mainly on household welfare. This leads to improvement in the health of the vulnerable groups and women's personal security. On the other hand, where women's income comes from wage employment and the welfare of the family suffers when women have to work harder to meet the needs (Kumar, 1978; Carloni, 1984). Because gender is about distributive justice, more equitable sharing of responsibilities would ensure adequate child care.

d) Women's capability in innovation and adoption under-utilized

Women have been found to be major innovators. Staudt (1975-1976; 1985) dealt with innovation as an aspect of productivity in Western Kenya. She found out that where neither men nor women had much access to agricultural input services, such as extension and credit, women tended to adopt improved maize earlier and grew more diversified crops than men. In areas where the level of agricultural input services was much higher and aimed at men, women lagged behind (Blumberg, 1992).

e) Increase in number of resource-poor female households

Due to male out-migration and the growing phenomena of de jure female-headed households, women are the majority of rural populations in Africa. In Kenya for example, nine out of 10 women live in rural areas (compared to 8 out of 10 men). In addition, because of the change in the family structure, women are today increasingly heading rural families. In Kenya, about 40% of families are for all practical purposes headed by women (SIDA –Sector Analysis, 1995). In both the de facto and de jure situations, women make most of the farm level decisions. Failing to target women in service delivery works against productivity and economic development.

f) Women's management capability not fully exploited and compensated

In general, where women operate under similar conditions as men, women have been found to do as well as men, thus making a case for greater attention to women who are now unquestionably accepted as farmers. For example, a Kenyan sample survey compared the effectiveness of weeding (a female obligation) on maize yields in male and female headed households. In both types of households, there were two weedings per season and each weeding significantly raised yields. However, in female headed households, these weedings raised yields by 56% while the male headed household, the yield was only 15%. Since other conditions were controlled for, the difference can only be attributed to the systematic difference in effort due to different incentives.

g) Inadequate Access to Extension services reduces productivity

Although not many studies have been done in this area, whatever exists indicates that reduced extension services reduce productivity. Blumberg (1989) indicates that although there have not been too many econometric studies of men's versus women's agricultural productivity, work done by Mook (1973, 1976) measured maize output from a sample of 152 Kenyan farmers, including 51 female heads of households. His regression analysis results indicated that when differential access to the factors for agricultural intensification- credit, fertilizer, schooling, extension contact and fertile soils- were statistically controlled, women farmers raised about 7% more maize than male farmers. In reality women raised about 4% less. Thus in total, maize yields in the district were below potential because women had less access than men to inputs. It is therefore clear that the main barriers to adoption of technology and subsequent increase in production is agricultural extension through which so many innovations are channeled. Most of the extension agents are men and mostly work with men who are considered heads of households.

In total inadequate access to extension education holds productivity and welfare below potential (Carloni, 1993; Dey, 1983; Jones, 1982; Pradhan, 1983a).

h) Women's needs, preferences and perspectives not taken into account

Both men and women place different premiums to different aspects of agriculture. They also have different perspectives on agriculture. Women's choice of a technology may be based on completely different considerations. For example, cooking and processing time of a cereal may be more important to women than yields and marketability. Inputs of women and women into research and other forms of development is a pre-requisite for their adoption and continued use.

i) Female Contribution is Substantial but Underscored

Women are major producers in terms of value, volume and hours worked (FAO, 1983, 1984, 1985; Pradhan, 1983b). Neither their total output nor their productivity is necessarily low. For example, in Bangoukire in Songhai area of Niger, although

women are reputed to be only marginally involved in agriculture, a 1981 survey found out that 95% of the women carried out rainfed rice cropping in gardens ranging in size from 0.25 ha. to 1 ha. or more, producing a total of 17 tons of rice, or 441kg/woman (Basilliat and Presvelou, 1985)

i) Loss of Social Benefits

Malnutrition has major implications in the socio-economic development of countries. Research indicates a link between malnutrition in early life- including period of foetal growth- and the development later in life of chronic diabetes and high blood pressure. Malnourished children, unlike well-nourished peers, not only have lifetime disabilities and weakened immune systems, but they also lack the capacity for learning that well-nourished peers have. In young children, malnutrition dulls motivation and curiosity reduces play and exploratory activities. These effects in turn impair mental and cognitive development by reducing the amount of interaction children have both with their environment and with those who provide care. Malnutrition in expectant mothers, especially iodine can produce varying degrees of mental retardation in her infant.

Access to resources by all is a prerequisite for effective participation. Resources are here broadly defined to include aspects such as education, knowledge, skills, decision-making, production inputs, time etc. Similar resources are also needed to improve the welfare of the people. The link with development is therefore self-explanatory here.

6.0 CONCLUSION

Failing to integrate gender into agricultural policies, resource access and nutrition have major implications on all these variables. Women who are overworked, have limited access and control to resources and are not part of the decision-making process on benefits accruing from development, find themselves greatly hampered in terms of productivity and their ability to adequately maintain their families.

Issuing from this, it is therefore clear that “empowerment of women is central to improving nutrition of both the women themselves and their children. This includes legislative and political efforts to combat discrimination against exploitation of women and measures to ensure that women have adequate access to resources and care at all levels of society. Improving the education of girls is also vital” (UNICEF 1998).

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