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OUAGADOUGOU, BURKINA FASO
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The Need to Increase Production, Availability, Access and Consumption of Nutrient-Rich Indigenous/Traditional Food Crops for Better Nutrition and Health in ECOWAS States

Introduction

According to a World Bank report, malnutrition is the most obvious manifestation of poverty. The report states that under-nutrition and micronutrient malnutrition among women and children in particular are themselves indicators of poverty. The report argues that direct investments on food security and nutrition have the potential to improve nutrition and health outcomes much faster than economic growth alone. It further contends that many countries may achieve the Millennium Development Goals' (MDG) income poverty target of reducing the percentage of people living on less than a dollar a day, but fewer than 25% of countries will achieve the target of halving malnutrition by 2015. According to this report, most countries in the ECOWAS region are not on target to halve malnutrition by 2015. Furthermore, the situation in the sub-region is now increasingly complicated by the rising incidence of chronic diseases that are linked to poor diets. The indicators of nutrition and health remain poor and are even deteriorating in many countries of the sub-region.

Poverty reduction strategy papers (PRSPs) developed by most developing countries including ECOWAS member states, recognize and identify poverty, inadequate nutrition and poor health status of women and children in particular as priority issues in national development. The PRSPs constitute an important platform for operationalizing the MDGs, they provide the platform for tackling poverty and health challenges which for our individual countries have become binding policy goals as stipulated and agreed in the MDGs.

It is well known that communities in developing countries depend greatly on indigenous natural resources which not only act as buffers against hunger and poverty they ensure diversity in household diets. Food resources from local ecosystems thus play a vital role in nutrition, health and livelihoods of poor communities. And so, there is a growing consensus amongst nutrition and health professionals, international development experts, as well as regional and national opinion shapers that to effectively tackle the multiple problems of food insecurity, negative changes in dietary habits, and the epidemic increases in malnutrition and diet related chronic diseases in sub-Saharan Africa, it is essential to mobilize and employ indigenous and traditional foods and food systems as part of the strategies developed and implemented. These foods and food systems constitute part of the sub-region's heritage of agricultural biodiversity.

Agricultural biodiversity in very simple terms refers to the varieties of animals, plants and microorganisms which are necessary to support food production and food security. Why do we need to mobilize the agricultural diversity of our food systems? Because maintaining the diversity in the plants and animals used as food ensures diversity in the diets of the sub-region's population. Diversity in diets helps to ensure adequate intake of

most of the nutrients – macronutrients, micronutrients, and the health protecting anti-oxidants necessary to maintain good health. Dietary diversity is therefore a key element of good quality diets. Thus a concerted and aggressive mobilization of the agricultural biodiversity of the sub-continent, and the ECOWAS sub-region in particular, with programmes in place to ensure their availability and consumption by households, would not only ensure good health at relatively low cost amongst population groups, it will also greatly compliment and increase the efficacy of strategies that are currently in place against infant, child and adult malnutrition, and diet related chronic diseases.

Agricultural Diversity in the West African Sub-region

The West African sub-region holds rich and diverse agricultural ecosystems which provide a wide array of indigenous and traditional foods that played, and continue to play important roles in the food and nutrition security of both rural and urban populations. From the cereals, grain legumes and livestock systems of the Sahel and Guinea Savannah, to the root/tuber crop and plantain systems of the humid and semi-humid eco-zones of the south, there are multiple sources of macro, and micronutrients, as well as anti-oxidants that are being ignored in daily diets.

Trees in both savannah and humid areas provide micronutrients and anti-oxidant containing food constituents. Local indigenous and traditional vegetables are widespread and important in all zones and food cultures. Many West African agro-ecosystems, forests and parklands harbor important food resources such as mushrooms, edible snails, small game and insects, as well as important fruits as the African plum, bush mango, African breadfruit and baobab which are all important and vital constituents of local dishes. However, these foods that are part of the traditional food systems are under the onslaught of cheap imported food staples, global markets and socio-cultural changes which place West Africa's indigenous food crops and animal resources at a distinct disadvantage. They seldom figure in production tallies, are under-recorded or under-valued in national dietary surveys, their nutritional values and uses are poorly known and documented, and more importantly, they are seldom included in nutrition, health and development policies. The following scenario is thus common of the food situation in the ECOWAS region.

- Production of indigenous/traditional food crops is low and there is a dire shortage of initiatives to increase their production.
- The sub-region has favorable climate and environment for the production of well adapted food crops.
- Most of the production is still done by small-scale farmers who lack the resources and necessary skills for large scale production.
- These small-scale farmers lack the means to exploit the irrigation potential in the sub-region for traditional food production.
- The production skills for these food crops, their seed systems and markets are poorly developed.
- Although there exists in the sub-region a sufficiently large number of cities with large urban populations which could provide a ready market for traditional foods produced by rural and peri-urban communities, their availability and use

has increasingly declined due to disregard for the foods, unsupportive agricultural development and research policies.

- Post harvest losses are high in the largely informal market systems and this accentuates the problem of availability and accessibility of these food crops to resource poor households and families.
- The nutritional value of the indigenous/traditional foods has been inadequately documented which has contributed to the undervaluing of their potentials to address the sub-region's burgeoning problems of micronutrient deficiencies, obesity and other diet related chronic diseases.
- There is a dismal lack of awareness on the indigenous/traditional foods as rich sources of micronutrients and health protecting anti-oxidants amongst all social classes and population groups.
- Because of this lack of awareness even amongst decision makers, they (these foods) are most often not considered in agriculture, food and nutrition policies and programmes.
- Very little consideration is given to the foods when food-based strategies against micronutrient deficiencies and diet related chronic diseases are being developed at national, regional and international levels.

What Needs to be Done?

The shopping list of what needs to be done is long and the challenge looks daunting. However, below are some suggested priority actions that can and need to be undertaken collaboratively in order to effectively address the multiple problems of food insecurity, malnutrition and diet related chronic diseases.

1. *Increase the Production of Indigenous/Traditional Foods*

Much of the production of indigenous/traditional food crops is done by individual small-scale farmers who sell their produce in rural and informal markets with minimal returns and so production is often limited. A major constraint to expanding production is the need to improve seed quality and production techniques. As mentioned earlier, lack of attention and social changes have led to the under-production and under-utilization of these food crops despite their many advantages not only nutritionally but in their adaptation to the variable environments of West Africa. For example, sorghum, millet, bambara groundnut are more drought tolerant than the introduced grains and grain legumes. Fonio (hungry rice), has a relatively short growing cycle and is well adapted to the highly variable rainfall of the Guinean and Sahelian zones. Indigenous leafy vegetables currently have few natural pests and are less demanding of soil and water than non-indigenous varieties.

However, targeting these crops for inclusion into existing systems for crop improvement (seed selection, production and supply), and achieving reasonably low production costs in order to make them available and accessible to resource poor communities, requires an approach that builds upon the knowledge and practices of traditional producers.

Furthermore, small-scale producers of indigenous/traditional food crops require help with opening of new markets for their produce. Although the national capitals and other large urban centres could provide ready market for traditional foods, there is need to develop and establish linkages with such markets as demand for the foods is stimulated through promotion and growing awareness of their health properties.

2. Increase Availability and Accessibility of these Foods at household Level

Increasing food production does not necessarily translate into availability and access of these foods at the level of households. Availability and accessibility of these foods to households are determined by a host of factors such as income, access to markets, ease of preparation into meals, as well as awareness of the nutritional and health properties of these indigenous and traditional foods.

A major deterrent to ensuring the availability of West Africa's indigenous and traditional foods at the level of most households is the time consuming nature of preparing these foods into meals. Traditional food processing techniques are tedious and time-consuming. Many meals prepared from indigenous foods involve lengthy preparation and cooking. Nutrient-rich sorghum, millet and fonio (hungry rice) for example, take more time to prepare than the pre-processed exotic rice that is readily available in local markets. Thus, more and more women in the sub-region who seek to increase family income by working outside the home resort to easy-to-cook rice in preference to indigenous foods. Clearly, processing West Africa's immense variety of indigenous and traditional foods into easy-to-cook culturally acceptable forms would go a long way to improving their availability and use at household levels.

In most countries of the sub-region, a very small proportion of the major indigenous and traditional staples (local rice, sorghum, millet, fonio, maize, and cassava) and non-staples (pulses, vegetables, sauce condiments and spices) are processed industrially. Most of the processing of these foods is done by small street corner or ambulant hammer mill operators and individual family food processing operations. There is paucity of information on nutrient content of finished products and losses during processing. There are hardly any nutritional standards and so milled products came with varying degrees of extraction and nutrient contents. With no controls or standards of acceptability in place, there are currently no defined standards, no yardsticks for improving existing techniques or developing new ones. This is an area that requires close collaboration between governments, research institutes and the private sector food industries. Research shows that the West African food processing technique of soaking and fermentation improves iron and zinc availability from cereals and legumes. There is thus the need for ECOWAS governments to encourage, by providing or leveraging necessary funds, research into the modalities for applying these and other nutritionally desirable indigenous food processing techniques into industrial processing operations. This will to a significant extent ensure the availability of familiar and acceptable micronutrient rich staples and non-staples to large segments of the population.

Furthermore, establishing these processing techniques will lay a good groundwork for the task of adapting fortification technologies to local resources and needs.

Raising awareness amongst all population groups through information dissemination, education and communication strategies are well known components of the few successful nutrition intervention programmes. There is an ongoing need to develop and apply culturally appropriate and acceptable nutrition education/information strategies that seek to effect positive behavioral changes in individuals and communities. The population's increased awareness of the nutrition and health benefits of these local foods would not only solicit pride in their food culture, it would also help to remove the negative stigma on these foods which are relatively more readily available and within economic reach of most segments of the population. As these foods are no longer considered foods for the poor, their production, availability and consumption will increase.

3. More Research into the Nutritional and Health Promoting/Protecting Properties of Indigenous and traditional foods

There is a dearth of information on the nutritional and health protecting properties of West African indigenous and traditional foods. One of the main causes of the poor results often reported with food-based interventions is the lack of knowledge, not only of available foods but of their nutritional and health protecting attributes. Investigations conducted on some of the commonly consumed foods during the past ten years by researchers in the sub-region have revealed their immense nutritional and health protecting properties. However much of such vital information are sitting in libraries of several Universities and research institutions in the sub-region.

Thus, attempts to identify micronutrient and anti-oxidant rich indigenous foods could start with the collection and collation of available data into a comprehensive sub-regional data bank on the composition of indigenous food staples and non-staples. Information from such data bank would be required by policy makers and programme planners both in government and the private sector to assess progress relative to national agricultural production goals, as well as for the development of strategies for food and nutrition intervention programmes.

Further research to generate new knowledge is imperative because available data are still patchy and incomplete in many cases.

Policy Implication of Suggested Priority Actions

The success and effectiveness of the suggested priority actions needed to stem the epidemic increases in micronutrient deficiencies and diet related chronic diseases in the sub-region depend on national policies for health, agriculture, food and nutrition, education, rural development and industries to mention the frontline sectors. African governments have traditionally considered nutrition problems as a health issue. This narrow perception of a very multi-sectoral problem has hampered efforts at employing the required collaborative approach to tackle

nutrition problems in the continent. Thus, an important policy implication for the active mobilization of West Africa's indigenous and traditional foods in ongoing strategies against malnutrition and diet related chronic diseases would be the harmonization of relevant sectoral policies spanning agriculture, health, food and nutrition, policies governing the food industry, community development, trade and commerce.

This may seem a "difficult nut to crack" but such harmonization will ensure inter-sectoral collaboration, identification of responsibilities, thus cutting down on overlaps and areas of "no man's land", as well as the development of instruments required to oversee and monitor the effectiveness of established harmonized policies. These instruments must also provide for, and encourage active collaboration between government departments and the private sector (industries).

Partners and Partnerships

The implementation of the suggested priority actions would require a broad range of partners, each providing specific skills in the areas of production, research and extension, marketing and value addition, promotion and policy. Partners should comprise horticultural development organizations, farmers associations, food processors, NGOs national, regional and international agriculture and health organizations, government extension agencies, and the media.

Below are some national, regional and international organizations that can provide specific skills in cross-sectoral collaborative partnerships which would work to ensure substantial returns in governments' investments in health, as well as measurable nutrition and health outcomes among populations in West Africa.

- National and Regional Agriculture Research Systems International
- International Agricultural Research Institutes.
- International Food Policy Research institute (IFPRI)
- Intergovernmental Agencies on Food, Agriculture and Health
- Regional Policy and Development Initiatives
- International and National Nutrition & Health Non-governmental Organizations
- Producers/Consumer Organizations