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## **The Role of Education Sector in Achieving Food Security: Experiences from Some Developing Countries**

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**ABSTRACT** - Reducing food insecurity has been identified as a major strategy in reducing poverty and hunger in most developing countries. It is therefore not a choice but a path for these nations to take so that they will be liberated from the bonds of poverty and achieve sustainable access to safe and nutritious food. This paper focuses on experiences drawn from developing countries that looked up at the education sector as an important partner in achieving sustainable food security for all. Where poverty and hunger strike hardest in the rural areas, the paper looks into how the government has implemented development strategies and advocacy campaigns to reduce food insecurity in these areas through the country's education sector. The strategies forwarded by the education sector are initiated mostly at the primary level, which has been deemed as the most vulnerable sector in the education ladder as far as food security is concerned. The paper also uses as a backdrop the theoretical framework that a strong correlation exists between poverty and hunger on one side and lack of education on the other. Some relevant public policies governing partnership between the agriculture and education sectors are also presented.

**Keywords:** food security, education for rural people, food-for-education programs, poverty reduction

## INTRODUCTION

The World Food Summit held in Rome, Italy in 1996 defined food security as a state in which “all people, at all times, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life”. This definition spells out that achieving food security embodies the aspects of food availability, food access, and food utilization. In most developing countries, like the Philippines, 60 percent of the budget of rural households is spent on food (Cabanilla, 1996). Specifically, 2008 data report that about 80 percent of Filipinos spend 24 percent of their income on rice. This is supported by worldwide statistics which show that poor people spend between 50 and 80 percent of their income on food (IFAD, 2011).

While food security is a national concern, it should not be the sole responsibility of government entity, like the Department of Agriculture in the Philippines. The private sector, civil society and individuals also have important roles to play in achieving food security of any nation. Indeed, individuals, particularly rural people in developing countries play a crucial role in this respect. In its effort to address poverty and hunger in developing countries, the United Nations Food and Agriculture Organization (FAO) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) jointly implemented Education for Rural People or ERP, which is a multi-partner, intersectoral and interdisciplinary capacity development initiative. ERP, launched in September 2002 during the World Summit on Sustainable Development, is a worldwide agenda which aims to empower rural people through education and skills training to become active participants in development efforts that concern them (Acker and Gasperini, 2009). In just about five years, around 300 partners consisting of international organizations, national governments, academic institutions, civil society and the media have embraced the programme (de Muro and Burchi, 2007).

The importance of education and training is likewise clearly stipulated in the Millennium Development Goals (MDGs). Of the eight MDGs, two are directly related to education systems: a) MDG 2 calls for the achievement of universal primary education by 2015 whereby every child will complete a full course of primary education; and b) MDG 3 calls for the promotion of gender equality and the empowerment of women (UNESCO, 2010). Education is a key factor to development and considered a powerful driver to reduce poverty, empowering people with knowledge and skills to increase employment opportunities and income, and thus reducing hunger and malnutrition. The United Nations Development Program in 2010 reports the close association between poverty and educational attainment. It cited that in Papua New Guinea, people living in households headed by a person with no formal education constitute more than 50 percent of poor families. In the Republic of Serbia, the poverty level of households where the head has no schooling is three times higher than the average.

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The International Food Policy Research Institute (IFPRI) also considers investing in human resources as an important priority to ensure rapid economic growth, which in turn is essential for achieving sustainable food security for all by 2020 (IFPRI, 2002). IFPRI has forwarded that one significant intervention is the food-for-education program, which was found effective in attaining the two-pronged goal of better education and improved food security. A number of developing countries have implemented food-for-education programs with the aim of improving food security and education outcomes as well as meeting a broader set of development goals.

### **Objectives**

This paper conducted a review and analysis of selected literature that tackled how the education sector in some developing countries, particularly in rural areas, plays a crucial role in achieving food security. Specifically, it aims to: a) explain the role of the education sector in achieving food security for all; and b) examine some initiatives and strategies implemented by the education sector in reducing food insecurity.

### **Theoretical Framework**

Human resource development programs are anchored on the popular belief that education in whatever form, be it formal or non-formal education and training, increases a person's value both socially and economically. This belief is consistent with human capital theory which views education as a process of human capital formation and a form of economic investment that brings economic gains or returns to the individual and his society (Cortes, 1993). In this context, education positively leads to national development. According to Harbison and Myers (1964), exponents of the human capital theory, "not capital, nor income, nor material resources constitute the ultimate basis for the wealth of nations... a country which is unable to develop the skills and knowledge of its people and to utilize them effectively will be unable to develop anything else". This theory also stressed the significance of education and training as the key for a person to participate in the new global economy.

This paper likewise draws from the assumptions and propositions forwarded by the Education for Rural People (ERP) framework. Jointly launched by the FAO and UNESCO Directors-General in 2002, ERP is a "worldwide call to action to foster rural people's capability to be food secure, to manage natural resources in a sustainable way, and to provide education for all rural children, youth and adults" (Acker and Gasperini, 2009). It is a people-centered approach that complements agriculture and education sectors to transform rural communities by developing the capacity of rural people through education and training to seek ways and means to feed themselves. ERP is likewise a policy initiative aimed at "reducing the 963 million food insecure people, the 776 million illiterate adults and the 75 million illiterate children within the MDG framework". It, thus, builds on the policy initiatives stipulated in the Millennium Development Goals as well as the Education for All (EFA) framework.

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## **METHODOLOGY**

This study conducted a review of selected literature that tackled how the government in some developing countries, through the education sector, plays a crucial role in achieving food security particularly in rural areas. Content analysis was used to extract primarily the scope, objectives, and target groups of initiatives and projects reviewed.

## **RESULTS AND DISCUSSION**

Empirical evidences that led to development initiatives and policy frameworks relate poverty and hunger with poor education. Key facts show that 774 million adults lacked basic literacy skills in 2011, three-quarters of whom lived in South and West Asia and two-thirds were women (UIS, 2013). In addition, there are an estimated 924 million hungry people in the world and that by 2050 the world population is expected to reach 9.1 billion which will require food production to nearly double in developing countries (IFAD, 2011). Earlier reports reveal that nearly three fourths of poor people live in rural areas where virtually all of them depend directly or indirectly on agriculture for their livelihoods (Gasparini, 2000).

Results of relevant studies provide support to the relationships between poor education, poverty and food insecurity. These research studies reveal that food insecurity and lack of basic education are common in many developing countries. A report from the European Community's Poverty Reduction Effectiveness Programme uses case studies from Kenya, Zimbabwe and Mali to better understand the links between basic education and food insecurity in rural areas. To address this concern, Kenya has granted free primary education to its citizens ([www.eldis.org](http://www.eldis.org)).

Research conducted by de Muro and Burchi (2007) suggests that in rural areas of low-income countries, a high correlation exists between food insecurity and lack of education, especially at low levels of the education ladder. Among the factors examined, measure of rural primary education was found as the best predictor of rural food insecurity. Their data show that primary education more than secondary or tertiary education contributes to the promotion of rural food security among rural folks. The same authors examined the relationship between primary education and food insecurity across 48 countries. They found that doubling attendance rates in primary education for rural populations would reduce levels of food insecurity from 20 to 24 percent.

In addressing the concern on food insecurity, a number of initiatives and strategies have been initiated by both government and non-government organizations as part of in-school programs with the aim of increasing school participation rate. In support of the findings of de Muro and Burchi, most of these initiatives have been designed for primary school children

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In the Philippines, for instance, the government has been implementing a Food Assistance Program, in the form of supplementary feeding, for malnourished children as a short-term palliative intervention. The program reportedly reaches an average of 1.3 million preschoolers and 1.2 million schoolchildren (FNRI, n.d.). There is also the Food-for-Schools Program (FSP), which is part of the National Accelerated Hunger-Mitigation Program (AHMP), a Presidential initiative aimed at cutting hunger in half by 2015. The FSP involves the provision of 1 kilogram of rice daily for 120 days to children in grades 1-3, preschools and daycare centers (Lambers, n.d.). Complementing the FSP is the United Nations World Food Programme (WFP)'s school feeding assistance program which targets 120,000 vulnerable school children living in conflict-inflicted areas in Mindanao. It was reported that the program has increased enrolment by 40 percent, stabilized attendance, and eliminated school drop-outs.

Another relevant government program being initiated by the Philippine Government through the Department of Social Welfare and Development is the Conditional Cash Transfer (CCT) initiative with the main intent of providing health and educational cash grants to poor families as an incentive to ensure that children attend schools, among others. Under CCT, education grants are provided for beneficiary households of children 6-14 year old with the condition that the children are enrolled in primary and secondary schools and maintain a class attendance rate of 85 percent every month. Incidentally, the Philippine Department of Education (DepEd) has also bared its plan to expand in 2012 its Breakfast Feeding Program to additional 15 provinces and a city. First implemented in 1997, DepEd estimates 63,000 schoolchildren benefitting from the Program. Its objective is to ensure 85 to 100 percent attendance among target pupils and improve their health and nutrition values and behavior (newsinfo.inquirer.net).

Experiences from Southern African countries report the prominence of school gardens or school-based gardens (Sherman, 2007). In the case studies presented from Lesotho, Malawi, Mozambique, Swaziland and Zimbabwe, school gardens are used to generate income for school funds, supplement school meals, provide food for children for home consumption, and as fieldwork for training in agriculture. Worldwide indeed, food-for-education initiatives have been found to contribute to improved education outcomes by boosting primary school participation, and hence, food security (Levinger, 2005). Similar to Philippine experience, success of these programs can be traced to the support provided by the government. In the Southern African case cited in particular, the Ministries of Education have principal institutional responsibility for school gardens, assisted by the Ministries of Agriculture and their extension workers. Local and international non-government organizations help promote gardens for school-aged children.

Assessing the effectiveness of food-for-education programs, it has been found that these related in-school meals initiatives have improved primary school attendance among students whose

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attendance was initially low (Adelman, Gilligan and Lehrer, 2008). In other words, positive effects of these programs on education outcomes were found in lesser degree among students who are already in school. Some lessons learned out of cases studied reveal that the positive impacts on education of in-school feeding programs only hold true when the food is accompanied by other inputs related to school quality ([www.scholsandhealth.org](http://www.scholsandhealth.org)).

## **CONCLUSIONS AND IMPLICATIONS**

Today's global economy puts a premium on educated and skilled human resources believing that education has a lasting effect on economic growth of a nation and wellbeing of its people. Producing educated and skilled individuals strengthens nations and leads to broad-base economic growth. Among developing countries, for instance, education plays a vital role in rural development which is viewed as a means to empower as well as improve the living conditions of rural people. When people are educated, informed decision-making and dependable choices are made. These conditions are well articulated in the Education for Rural People initiative of FAO and UNESCO.

Private groups- and government-led food-for-education projects to achieve the two-pronged goal of increasing school participation rate and food security have been implemented as in-school initiatives in many developing countries. Evidences of success of these initiatives can be traced to the sustained support provided by the government. With these positive outcomes, governments may need to rethink their priorities and invest on specific measures that would ensure food security and at the same time guarantee human resource development through education and skills training.

There may also be a need to foster stronger partnership between academic institutions and local government units in broad as well as specific areas of cooperation such as the in-school programs discussed. Evidences suggest that where this partnership is strong and mutually reinforcing, achievement of local development goals has been found to be successful.

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