



## The Role of Agriculture Sector in Eradicating Poverty: Challenges, Policies, and Pathways for Economic Growth in Less Developed Countries

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### ABSTRACT

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Agriculture is a vital mean of living in developing nations, where it represents the most significant economic activity and also represents the biggest jobs provider in rural areas. Yet despite its importance, the sector has established little attention from governments and as a result the pace of poverty reduction has slowed and economies in a number of regions, particularly Asia and Africa, are in decline. This literature study, which is built around three paper articles, explores the link between farm sector growth and poverty reduction and treats with the role of small farm holders sustainable farm development for rural betterment. It discusses challenges faced by agriculture sector such as insufficient access to production assets for farmers, lack of support services for farmers, and policies of neoliberalism. The paper also explores the role of government interventions, particularly irrigation development and farmer support programs, in promoting agricultural growth and poverty alleviation. This study provides key policy recommendations and strategies for increasing the sector's contributions to economic development and poverty reduction by drawing on experience from other developing countries.

### KEYWORDS:

Poverty, Agriculture and Development

### 1. INTRODUCTION

The agriculture sector is a significant part of the livelihoods in most developing countries, and it is clear that agricultural growth is a fundamental pre-requisite for widespread poverty reduction. The slowing down of poverty reduction in the last two decades in Asian countries and the increasing number of people who live less than \$1 a day in African countries is a result of neglect of the agriculture sector by governments. Almost all developing nations have large agricultural sectors encompassing the majority of the population. However, achieving high economic growth and

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poverty reduction leads to decreasing the relative importance of agriculture. Because most poor in developing countries live in rural areas, this leads to questions about the importance of agriculture for rural areas and its effect on the improvement of individuals livelihood and correspondingly the reduction of their poverty. Access to factors of production in the agriculture sector by small holders is a major factor to reduce poverty in developing countries (Zia et al.; 2025). Experience from other countries show that farmer support services are necessary to achieve growth in agriculture sector, particularly, the smallholder agricultural sector (Aivas, 2014).

This paper has organised as follows. In the first step, the role of agriculture in improvement in livelihood and poverty reduction, and then problems with the agriculture sector, after that, the writer will consider small and large farmers in the context of poverty reduction, and then the role of government in the agriculture sector will be analysed. The next section will be about the implementation of neo-liberal, and then irrigation will be considered as a factor for improving agriculture. Finally, the essay will conclude (Yaqub et al.; 2024).

## **2. THE ROLE OF AGRICULTURE IN LIVELIHOODS AND POVERTY REDUCTION**

Livelihood can be defined as a gain of something necessary for life that poor households try to obtain in order to improve their life, mostly the necessary things which include adequate food, water, clothing shelter, basic education, as well as health service. The agriculture sector is one of the most successful sectors to sustain livelihood and reduce poverty in developing countries. In developing countries improvements in the agriculture sector are significant to reduce poverty and meet the Millennium Development Goal on poverty (Aivas, 2017). It has been argued that growth in the agricultural sector has a significant impact on poverty reduction and decline equality, in addition, agriculture has ensured that international food production has more than kept pace with human population growth. It is found that an increase in the growth of the agriculture sector of 1% has led to an increase in income of 1.61 in the poorest 20% of the population. Yaqub (2024) argued that increasing agricultural productivity can have a significant impact on average incomes and on reducing poverty in urban areas by decreasing the number of people who migrate to the urban areas in addition, raising demand for goods and service by the rural areas. Growth in agriculture can contribute to an improvement in quality of food, and increase farmers income sharply (the Green Revolution in Asian countries is the best example). Salih et al.; (2021) found that raising productivity in agriculture is more effective for landless labour. Also, there is an indirect benefit for poor households by decreasing food prices, job creation for poor people, also the poor people in rural and even urban areas spend most of their income on buying food. Therefore, a decline in the price food is more significant for poor people than for non-poo. Salih et al.; (2019) found that an increase in productivity in the agriculture sector drives pro-poor growth, as well as benefitting both urban poor and rural areas.

However, growth in the agricultural sector does not necessarily lead to a reduction in poverty in rural areas, for instance, in Brazil the agriculture sector improved significantly during the 1990s but the percentage of poverty reduction in rural areas was insignificant. This was as a result of employing a great deal of highly skilled labour in the process of production while most labour in rural areas is unskilled. A second reason was using high technology and intensive capital in production rather than intensive labour intensive that leads to using a small number of workers in the process of production, this provided fewer opportunities for the poor to find a job in their rural areas. Aivas (2017) argued that the effect of the growth in agriculture might contribute little to reducing poverty if distribution of assets particularly land, for instance, in Latin America the distribution of land is highly unequal, as a result of this, increases in productivity in the agricultural sector did not have a great effect on reducing poverty in rural areas. In some research done by the

Department for International Development (DFID) it was found that increases in agricultural productivity by 1% lead to a reduction in poverty of 0.1%. Yaqub (2024) conversely note that in Sub-Sahara Africa growth in the agriculture sector is very significant for reducing poverty as a result of quite fair equality in agricultural assets like land because inequality in African countries is much smaller than Latin America countries in terms of land distribution (Yaqub, 2019).

On the other hand, the impact of agriculture growth on poverty reduction depends on the country's stage of growth, for instance in African countries, the agriculture sector is a significant sector for encouraging growth and poverty reduction, but in other countries agriculture is significant via growth nonfarm economy (Yaqub, 2025). Despite agriculture sector being important for reducing poverty, unfortunately, the conceptualist globalization and openness have had a negative impact on the role of the agricultural sector in reducing poverty.

## **3. OPENNESS AND PROBLEMS WITH AGRICULTURE PRODUCTS AND ITS IMPACT ON AGRICULTURE PRODUCTIVITY**

It is argued that openness has a negative impact on agriculture sector in most developing countries. Many of the world's poorest countries have difficulties in increasing agriculture productivity which is the key to improving livelihood and reducing poverty. This is as a result of inequality in the trading system between developed and developing countries. Aivas (2021) found that openness and globalization have a negative impact on agriculture sector in developing countries as a result of increasing competition and the decline world price of agricultural products; this is one of the biggest challenges which the agriculture sector has faced as a result of openness. Aivas (2017) argued that one of the difficulties that a developing country especially Sub-Sahara Africa (SSA) faces is access to markets, as well as high costs of transportation to market, in addition, they cannot attract foreign direct investment to run the agriculture sector in those countries. The big problem with the agriculture sector is that the falling agriculture commodities price is declining in the long term, and also more openness means domestic producers find themselves to be more competitive, therefore, if the farmers cannot increase their productivity or decrease the cost of production, which should be faster than decreasing of the price of commodities, they will lose income. In some regions like SSA per head productivity and food production have decreased over the past two decades, poor people engaged in the agriculture sector face many difficulties, for instance access to finance, markets and land.

Thus, the key factor which is responsible for the general poverty in SSA is difficulty access to factors of production and knowledge in the agriculture sector. Several African farmers do not have enough credit. In some areas, farmers do

not have enough knowledge and access to extension service to apply the best crop management practices, and therefore, this leads to reduce in crop yields. Aivas (2022) found that improvement in inputs is a major reason and significant policy for increasing productivity in agriculture, however, they argued that absence of one of the factors of production may affect productivity for other factors, for instance, existing fertilizer and land is not a necessary gain for high productivity in agriculture if the amount of water is limited. Therefore, presence of the factor of production is very significant to increase the amount of production, and leads to an increasing ability for competitiveness.

#### **4. ROLE OF SMALL FARMERS AND LARGE FARMERS IN POVERTY REDUCTION ANALYSIS DIFFERENT TYPES OF POLICY INTERVENTION**

Smallholder is defined as limited resource endowments compared with large farms. However, the definition of smallholders is different from one country to other. In those areas that population is densities; in developing countries small holders consist of 80% in total of famers (World Bank, 2005). Smallholders can have a significant impact on economic growth and poverty reduction if the factors of production allocation efficient. Salih (2018) argued that the volume of production per hectare in smallholders is greater than large farms, because labour supervision costs in large holders is more expensive than family labour (smallholders), this leads to fall profitability in large farms. Therefore, smallholders have a significant impact on poverty reduction via increasing productivity.

However, Rahman et al, (2021) argued that there is a positive correlation between high productivity in agriculture and the size of farms for instance (Yaqub, 2024). Smallholders can be less efficient if collateral requirements influence their ability to increase working capital (World Bank, 2005). In rural areas in South and South East Asia where the incidence of rural poverty an inverse correlation with size of land that means poverty will be reduced when large farmers are exiting. Small farms are facing difficulties in access to credit to fund their processes of production, because small farms do not have enough land as a collateral to acquire the necessary working capital, whereas, large farms are not facing this kind of problem. Salih et al, (2021) argued that the larger farms can have more benefits in their land and adapt new technology, whereas they cannot gain significant benefits from their land as a result of the lack of capital and most of the workers who are working in smallholders are unskilled labour, in some situations they cannot adapt the new technologies. The big problem which small farms face is increasing the price of the factors of productions (input prices). This lead to increasing the cost of production for small farmers, whereas large farms are able to buy inputs at lower prices.

Some policies should be implemented to help smallholders. Small farmers should be provided with enough capital in order to have the ability to buy improved seed and fertilizer as well as improved livestock breeds. Improving seeds plays a significant role in increasing productivity in the agriculture sector especially for small holders, therefore, pragmatic seed policy needs to be devised and implemented effectively to make available improved seeds to the small holders to increase their income, livelihood and reduce rural poverty. Improving access to credit has often played a significant role in raising agricultural productivity. The establishment of parastatal institutions with a mandate to channel credit to smallholder farmers is one of the significant policies that are used by governments in developing countries in order to encourage smallholder agricultural development. In terms of government policy, Aivas and Abdulla (2021) found in India that government investment in rural areas has a significant impact on agricultural productivity and poverty reduction especially for small holders, particularly investment in roads and research and development (R&D), this leads to an increase in the average of incomes for poor rural areas and the lower price of food product. Hussein (2022) argued that despite government policies having a significant impact on small farms, these policies may not be applicable to all small farms, these policies may not be applicable to all small farms, sometimes government subsidies include those farms that have much greater extent and those farms that have stronger positions than others for instance, in India. The best policy to improve small farms is extensive interventions in the relevant markets and providing adequate services such as access to credit as well as subsidies inputs (factors of productions). That strategy can be done by local government or international agencies.

#### **5. ROLE OF GOVERNMENT TO ENCOURAGE AGRICULTURE-GIVE EXAMPLES OF AND ANALYSE DIFFERENT TYPES OF POLICY INTERVENTION**

It is argued that some governments have tried to encourage growth and increase productivity in the agriculture sector in order to benefit the poor. For instance, Malawi is the best example where government intervention does work to reduce poverty through agriculture, in this example, the government reintroduced the fertilizer subsidies which were removed before, despite this being against the neo-liberalism program, eventually Malawi not only eradicated its famine but also became a food surplus country (Yaqub, 2024). Another policy which should be considered is crop development, this policy is very significant to increase agriculture productivity, but at first, it should focus on those areas that have high productivity. Finally, the seed should be accessible to all farmers at a low cost; this has succeeded in some countries such as India. QARADAKHI and Aivas, et al. (2020) found in some developing countries especially African countries,

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public expenditure in support of the agricultural sector is at low levels. Or government intervention focused on regions with high profits, this leads to a lack of access to factors of production for example, fertiliser subsidies (Hussein, 2018).

Moreover, Salih (2019) found that public expenditure has to include everywhere particularly remote and poor areas in order to receive the greatest impact on poverty reductions, while subsidized irrigation in some developing countries did not include poor people. For example, in India most subsidization now benefits rich farmers, small farmers and poor people get a small benefit from benefits, this leads to decreasing impact of subsidies to reduce poverty even though high growth and development in agriculture productivity. This is not just leading to increase inequality between rich and poor, but also creates an inefficient investment and also brings about unsustainability in scarce water. Rebaz et al, (2019) argued that government investment in rural transport and communications infrastructure is a significant factor to extend the product and allows easy access to the market. This leads to a reduction in costs of marketing agricultural produce.

However, Salih et al. (2019) argued that one of the best policies to encourage the agriculture sector is reductions in taxes on the agricultural products as well as having government remove subsidies for the price of agriculture products which are imported from abroad, apart from decreasing the government deficit, all supposed to benefit relative agricultural prices. Since most farm products are considered tradable and bring about encouraging farmers to increase agriculture productivity. This is following poverty reduction, because 75% of the poor in developing countries live in rural areas and 80% of rural people are employed in the agriculture sector. Noori et al, (2022) argued that providing finance to the input-based or factors of production in agriculture sector should be taken by government step-by-step eventually withdrawn. Governments should spend their own resources for encouraging productivity in agriculture sector that is based on external inputs this is for two reasons, first, to a more efficient process of production in the agriculture sector. Secondly, this government subsidy should be spent on new programs and field to generate new jobs opportunities and use those lands that have already been ignored. Government intervention could not solve poverty reduction via the agriculture sector. Therefore, the idea of neo-liberalism emerged as a new paradigm.

### **6. IMPLEMENTATION NEO-LIBERALISM IDEAS**

After failing some agriculture policy to reduce poverty and better livelihood for poor people particularly in rural areas, the idea of neo-liberalism emerged in the 1980s. Advocates for this idea believe that small holders were considered a main hindrance to encourage economic development and poverty reduction in developing countries. Advocates of neo-liberalism argue that government intervention in the

agriculture sector leads to a distortion of prices. Some intervention policies lead to a reduction of farms incentives and create inefficiency in process of production, in addition government interventions leads to a lack of competition and heavy government regulation (Yaqub, 2024).

However, small farmers have had many problems under structure adjustment in developing countries (Salih et al, 2020). For example, in Mexico, structure adjustment was introduced in the 1970s, it plays a significant role in havoc for the amount of productivity in the agricultural sector, When the Mexican government implemented liberalization most of local farmers lost their advantage as a result of decreasing the crop price in local markets because the price of the US crop was much cheaper compared with the local price, therefore, the country became an importer country (Yaqub, 2024). There are similar stories in other regions of the world like African countries: under the implementation of international institutions like the International Monetary Fund (IMF) and World Bank, millions of livelihoods, and large areas of countryside in African countries have been destroyed. As a result, a large number of rural people have left their place of birth to go to the cities in order to find jobs and start living in typical urban slums. Therefore, it has been argued to move back the role of government to reduce poverty, particularly via the agriculture sector.

### **7. ROLE OF IRRIGATION TO IMPROVE AGRICULTURE,**

Irrigation can make a significant contribution to increasing productivity in the agriculture sector that brings about high wages and income for poor rural people and eventually leads to a poverty reduction. In Sub-Sahara Africa just 4% of agriculture lands have access to water via irrigation compared to 39% in South Asia and 29% in East Asia (Yaqub, 2024). Access to water is a major factor to increase land productivity. Irrigated land is many times more productive than rain fed land (World Bank, 2008). In the early years of the 1960s, high advanced technology has been used by most of the countries in the world to increase productivity in the agriculture sector, particularly irrigation system to improve products, in additions to crop improvements which have been extended by irrigation systems in most of developing countries which leads to success in agriculture productivity.

Moreover, Muhammad et al (2024) show that irrigation has a significant role to increase productivity in agriculture sector, it allows farmers to gain greater yields and better revenue from this sector, this increases revenues, greater revenues can be invested in productive inputs, increasing returns over time can enable the poor to implement measures that decrease their vulnerability to shocks, and probably to escape from chronic poverty. Kareem et al (2022) found that irrigation creates jobs opportunities for the poor who are landless in rural areas to work in irrigation. As well as this, irrigation is a main factor to reduce food prices which in turn

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leads to more ability to afford food by the poor. Mohammed et al. (2020) argued that the increase in agriculture productivity via the irrigation process can be a main factor to encourage economic development; such growth can be significant to poverty reduction and hunger if proper policies and investments are implemented by government. Salih (2018) found in almost every case, that the percentage of poverty was higher in those areas that had no irrigation. The percentage of poverty was between 17% and 64% in irrigated areas, but from 23% to 77% in non-irrigated settings.

However, the impact of irrigation on poverty reduction depends directly on how successfully the poor farmers can draw from the water which is made available. Fatah (2018) demonstrated that building irrigation can have a negative impact on the livelihoods of farmers insofar as it contributes to problems of transportation, flash floods, loss of fish. This circumstance is compounded by poor canal design. It creates inequality in water allocation, creates untimely water deliveries, and irrigation would be inefficient, with a subsequent loss of productivity in agriculture and livelihood for the poor people. Salih (2019) argued that in the long run the impact of irrigation might change fertile land to wasteland. For instance, in the world every year farmers loses more than half billion dollars in agricultural production, as a result of building irrigations. (KAREM et al. 2021) found that one of the factors of environmental problem is building irrigation, for instance, is responsible for water logging, salinity and poor drainage, particularly in large irrigation, this in turn leads to a loss of soil fertility and decreases productivity in agriculture.

### 8. CONCLUSION

This essay has summarized the debates around the importance of the agriculture sector, in terms of increasing productivity and poverty reduction in developing nations. In the past, the agriculture sector has played a significant role in encouraging development and poverty reduction, but changing international conditions and the characteristics of today's poor developing nations, and climate change (greenhouse gas emissions) are widely acknowledged as making this task now much more difficult than before. The challenge to agricultural-led poverty reduction is greater in today's poor rural areas as they face the combination of increased risk and uncertainty with enlarged costs and lower profits in agricultural investment. Many of these problems are indigenous. Despite the fact that the agriculture sector is still a significant factor in improving livelihood and poverty reduction in developing countries, it is found that while economic growth generally was an important contributor to poverty reduction, growth in the agricultural sector is more important to reducing poverty and improving livelihood than any other sector. But progress in the agriculture sector needs some policies such as improving irrigation and helping small

farms which should be used to support poor people because most of the poor live in rural areas and they mostly depend on agricultural revenue to improve in their livelihood. Apart from that, government should intervene in the agriculture sector in order to rescue this sector from those challenges that this sector faces during process of productions. Therefore, it is recommended that in order to achieve (MDG), it is needed to improve agriculture sector.

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