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Review

Agricultural Development in Less Developed Countries: The Example of Sub-Saharan Africa

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This study aims to identify the reasons of development problems in sub-Saharan African countries. Many small African countries have unskilled labour and poor infrastructure beside the weakness of public service. Most farms are micro scaled and have difficulty to access credit mechanism. New techniques in agriculture are not widely applied by subsistence farms since they have lack of money. Also, there are no strong unions where farmers gather together for doing a successful business in agriculture. So, micro-credit is mostly suggested by many experts in the part of the world. With this paper, it suggested that the small African countries have to have perfect markets where buyers and seller can meet transparently. Moreover, accessing credit can only be done with producer organizations. Technology transfer such as seed, irrigation and mechanization from the developed countries should be done through private companies which are encouraged and subsidized by the Governments.

Keywords: Agricultural development, less development countries, sub-shara

AZ GELİŞMİŞ ÜLKELERDE TARIMSAL GELİŞME: SAHRA ALTI AFRİKA ÜLKELERİ ÖRNEĞİ

ÖZET

Bu çalışma, Sahra-altı Afrika Ülkelerindeki gelişim problemlerinin nedenleri tespit etmeyi amaçlanmaktadır. Birçok küçük Afrika Ülkesi, kamu hizmetlerinin yetersizliğinin yanı sıra berbat bir altyapı ve kalifiye olmayan bir iş gücüne sahip değildir. Çoğu tarım işletmesi mikro ölçekli olup kredi mekanizmasına ulaşmada ciddi sorunlar yaşamaktadır. Bu işletmeler, yetersiz mali kaynaklar nedeniyle geçimlik işletmeler halinde faaliyetlerini sürdürmekte ve aynı zamanda yetersiz örgütlenmeye sahiptirler. Bu ve benzeri tarımsal işletmelerin bulunduğu ülkelerde dünyanın her yerinde desteklenen mikro-kredi olanakları oldukça ön plandadır. Küçük Afrika ülkelerinde yaşanan bu sorunların çözümünde, tarım işletmelerinin pazara açık olmaları ve alıcı ve satıcının birbirleri ile karşı karşıya gelmelerinin sağlanması önerilen bir çözüm olarak değerlendirilmektedir. Ancak kredi olanaklarının kullanımı sadece üretici organizasyonlarının değil aynı zamanda daha geniş kapsamlı küçük üreticilere hükümet tarafından desteklenen organizasyonlarla ulaştırılması gerekmektedir.
Anahtar Kelimeler: Tarımsal gelişme, Az Gelişmiş Ülkeler, sahra-altı

INTRODUCTION

Industrialization is in general regarded to create an efficient and expanding manufacturing capacity, makes a vital contribution to accelerating economic growth and development. As stated by Thomas (1982), almost all less developed countries have encountered production problem due to a deficiency of effective domestic demand.

Sub-Saharan Africa has the largest land area of any developing region and the smallest countries. About 55% of the continent is considered unsuitable for cultivated agriculture (Livingston et al, 2011). Agricultural value added per worker in 2005 in sub-Saharan African and high income countries are $ 287 and $ 27.680 respectively (WB, 2009). Furthermore, public spending on Agriculture as a share of Agriculture in GDP (%) is 4 % in 2004 whereas this share for developed countries is more than 12 % (WDR, 2008). Most sub-Saharan African countries with small populations as well as low incomes have had in addition to confront the problems of insufficient labour, poor road and rail infrastructure, insufficient potential markets domestically and, in certain cases, insufficient land and rainfall uncertainties affecting food security (Lipton, 1985).

The main question of this essay is to find the reasons of why sub-Saharan African countries cannot get vicious circle rid of and to come up with some suggestions that can be applicable in this poorest part of the world.

This essay is organized as follows. In section 1,I briefly explain the industrialization in less developed countries, Section 2reviews the main challenges of sub-Saharan African countries concerning Agricultural Development and what can be done to make this poor land more developed is summarized in section 3.

Industrialization Failures in Less Developed Countries

Industrialisation is a fundamental objective of economic development for the great majority of Less Development Countries (LDCs).For want of economic opportunities, farmers do not save and invest to increase agricultural production. For want of progress in agriculture, industrialization is in jeopardy. Then comes the crisis (Schultz, 1968). That the industrial sector normally grows faster than the agricultural sector (Persaud, 1982). Capital accumulation,infrastructure and institutional development played a significant role in developed countries.In developed countries such as France and Germany, agricultural development, often helped by protection and other forms of governmentintervention, facilitated the process of industrial development (Sahafaedin, 1998).WB (2008) report showed that the development of the manufacturing sector remains hampered by structural impediments such as high production input costs and limited infrastructure. In particular, limited and expensive electricity supply remains a major obstacle. Also, lack of investment infrastructure, insufficient credit mechanism, less credibility and underdeveloped democracy and insufficient institutions are the other factors that less developed countries challenge. Ethiopia had the lowest share of manufacturing in total GDP—at 5 percent—whereas the shares for Rwanda and Uganda at 8 percent and 7 percent, respectively, were comparable with the median for LICs in sub-Saharan Africa given in Table 1 in Annex.

Barriers to Agricultural Development in Sub-Saharan Africa

According to World Bank Development Indicators agricultural productivity in developing countries is less than one-twentieth of the level in developed countries, and there are even bigger differences between countries (WB, 2009).

Two important features distinguish the agricultural sector in less development countries. First, in virtually all less developed economies agriculture is an existing industry of major proportions. Typically, some 40 to 60 percent of the national income is produced in agriculture and from 50 to 80 percent of the labour force isengaged in agricultural production. However, the public spending on Agriculture as a share of Agricultural GDP is only 4 % (WDR, 2008). The other significant characteristic is the secular decline which occurs in the relative size of the agricultural sector (Johnston and Mellar, 1961). Smallholder farms, when defined as being two ha or less, represent 80% of all farms in SSA (Livingston et al. 2011). The Smallholders face two basic classes of entry barriers. The first are micro-scale, associated with households' insufficient private access to productive assets, financing and improved production technologies with which to generate adequate marketable surplus to make market participation feasible and worthwhile. The second class of barriers to entry occur at mesoscale. Especially in more remote areas, the high costs of commerce limit both household-level market access and market-level spatial price transmission and trader competition (Barrett, 2008).

(Asraff et al, 2008) takes the stance that there are several stylized constraints that smallholder farmers face in Africa. First, smallholder farmers have little information on pricing and exporting opportunities. Second, they lacked reliable production contracts with large brokers or exporters.Third, farmers having mostly risk-averse do not have relationships with financial institutions, and thus lacked access tocredit, and finally, the farmers have in general difficulty coordinating and financing the use of trucks to transport the crop. (WB, 2008) report pointed out that the inadequacies of rural financial markets reflect real

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Table 1. Sub-Saharan Africa Sample Countries: Sectoral Growth in Real GDP (Percent)

	Agriculture			Manufacturing			Construction		
	Share of total GDP 1995	Growth 1995–2010	Contribution to total growth 1995–2010	Share of total GDP 1995	Growth 1995–2010	Contribution to total growth 1995–2010	Share of total GDP 1995	Growth 1995–2010	Contribution to total growth 1995–2010
Burkina Faso	34.6	5.30	1.60	13.9	4.33	0.51	4.7	7.70	0.36
Ethiopia	73.5	6.14	4.26	5.4	11.51	0.32	3.2	17.00	0.58
Mozambique	40.2	7.02	2.32	6.5	12.26	1.19	2.8	19.89	0.69
Rwanda	43.8	8.37	3.40	7.8	6.62	0.46	4.9	21.19	0.89
Tanzania[1]	33.0	4.32	1.26	9.0	7.86	0.73	5.7	9.42	0.59
Uganda	47.2	1.18	0.22	7.1	9.08	0.70	7.1	16.61	1.62

	Industry Excluding Manufacturing and Construction			Services		
	Share of total GDP 1995	Growth 1995–2010	Contribution to total growth 1995–2010	Share of total GDP 1995	Growth 1995–2010	Contribution to total growth 1995–2010
Burkina Faso	1.4	14.64	0.33	45.4	6.93	3.21
Ethiopia	3.3	23.96	0.55	14.5	9.10	1.59
Mozambique	1.8	30.96	0.55	48.7	6.76	3.00
Rwanda	1.2	11.86	0.14	42.3	10.12	4.22
Tanzania[1]	4.4	8.31	0.41	47.9	7.30	3.59
Uganda	1.2	19.94	0.42	37.2	11.82	5.35

Source: IMF, African Department database.
[1] Data for Tanzania are from 1999 to 2010.

risks and real transaction costs that cannot simply be wished, or legislated, away.

The problem that sub-Saharan African countries face is too complex. The rich countries in their demands generally are selfish and some poor countries do not wish to regulate the production of raw materials. The countries in sub-Saharan Africa tend to increase their production of raw materials, especially agricultural products. On the other side, the rich countries tend to replace raw materials by synthetics in laboratories that cost much less (Ghettor, 1979).Importing fertilizer, for example, is most cost effective, considerably above the annual demand in most Sub-Saharan African countries. Transport costs are particularly high in Africa because of the generally poor road and rail infrastructure. As shown in Figure 1 in Annex, in Malawi, Nigeria, and Zambia, international and domestic transport costs make up about one-third of the farm gate price (WB, 2008).

Agricultural Development in Sub-Saharan Africa

Agriculture should not only be considered by itself but also its interaction with other sectors (finance, industry and insurance) plays a vital role in development. There are still a couple of points that need to be implemented in this poorest part of the world. The first and most important one is to provide a better accessing to credit mechanism. Accessing to credit for subsistence farms may help to overcome barriers to entry in the market. Rooyen et al (2012) suggested that micro-credit and micro-savings have a positive impact on food security andnutrition. For example, After "The National Agricultural Extension Programme" was introduced in Ethiopia in 1994, the use of improved seeds and fertilizer increased by nearly 50 percent and 30 per cent respectively, between 1998 and 2008 (IMF, 2013).

Second is to create stronger producer organizations that might play a vital role for reducing high transaction costs in Agriculture sector. Producer organizations can take more effective actions to access credit and achieve economies of scale in markets (WB, 2008). Having producer organizations widens the opportunity cost and bargaining power of subsistence farms.

Third is to produce products of which gross value added is higher. Of course, adaptation of technological and institutional innovation is quite important. Particularly, weather-indexed insurance could reduce uncertainties, lowering business risks and problems of imperfect information in Agriculture which are most vulnerable to climate change. Therefore, the improvement in irrigation is quite important for sub-Saharan African countries. Fourth, the more women get involved in economic activities the more the savings increase in economic growth. Fifth, agricultural extension mostly spread in rural areas. Innovation cannot be done without human capital to be able to use it in an efficient way. Sixth, the private sector

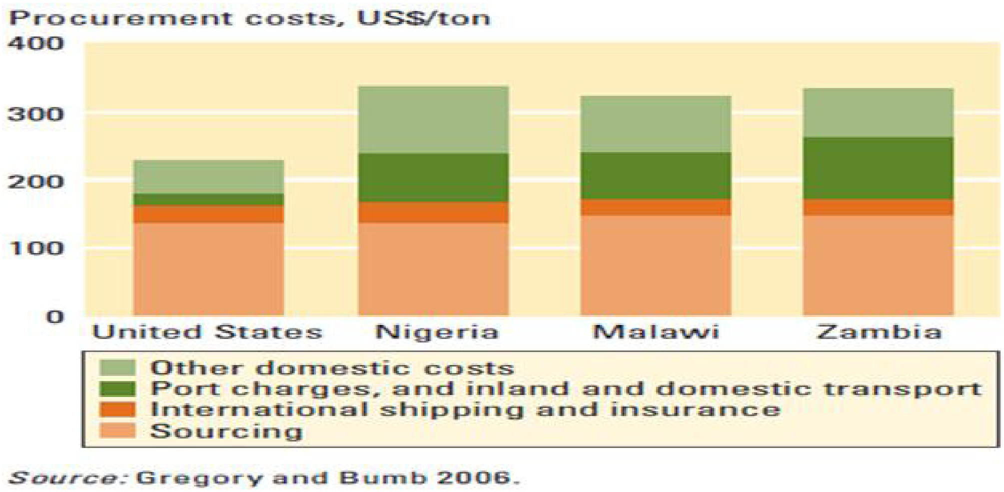

Figure 1. Transport costs make up about one third of the farm gate price of urea fertilizer in African countries, 2005

Source: IMF 2013, in quoted by Gregory and Bumb 2006

should be motivated to take over the role of intermediary, to improve efficiency and limit costs for the government (IMF, 2013).Last but not least is the international aid. This was vigorously attacked by the economist Schultz in his book "Transforming Traditional Agriculture" issued in 1964. Rather than transferring technology to sub-Saharan African countries, making direct donation make them worse off in the long run.

CONCLUSION

As has been argued that less-developed countries severally suffer from lack of infrastructure, predominant inefficient small-sized agriculture, and undeveloped credit mechanism. If carefully considered the development paths of developed countries, it is clearly seen that industrialization developed with the help of increasing productivity in agricultural sector. Therefore, each less developed county needs to take into account the inter-relationships between agriculture and industry at different stages of economic development.

Many underdeveloped countries have neglected the importance of Agriculture by ignoring budget allocation in Agriculture though, in contrast to developed countries allocating more for agricultural research (seeds, fertilizer, livestock breeds); therefore, it is not possible for sub-Saharan to reach a taking off position without agricultural growth in development. Particularly, private seed companies should be encouraged in order to reach perfect market conditions. In short, the sub-Saharan African countries struggle seriously with the poverty and food insecurity. Hence, the more sub-Saharan African countries should develop micro credit mechanism for agricultural investment like seed, irrigation, create stronger producer organization and make women get more involved in order to get quickly rid of vicious circle.

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