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## How Successful The Agricultural Development Led Industrialization Strategy (ADLI) Will Be Leaving The Existing Land Holding System Intact – A Major Constraints For The Realization of ADLI's Targets?

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Abstract

Ethiopia remains still a largely food insecure economy. The link between agriculture and the transformation of the national economy is weak. Ideas for transforming agriculture are donor influenced if not in some cases even donor dependent. There is doubt that the agricultural led development strategy can overcome donor penetration and influence. There are a number of challenges that the agricultural sector faces. The major is the low productivity of agriculture to overcome the chronic food dependency by the Ethiopian economy. This paper explores the vulnerabilities of agriculture and indeed with it the whole economy

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lead development

\*University of Free State, Department of Agricultural Economics and Development Bank of Southern Africa, E-mail: ZerihunA@dbsa.org First, I would like to start by saying that in the past, foreign donors were major actors of economic policy formulation. At present too, it is not doubtful that Ethiopia stands in the receiving end of economic policy ideas, because, unavoidably, aid has become conditional on the implementation of donor/creditor driven policies. Reports indicate that a series of debates & negotiations have been made with major donors & creditors of our time (the WB &IMF), which introduced a number of revisions in the EPRDF's line of economic policy thinking & economic program. Also, it should be said in passing that, because pressures are still underway in different forms, it seems inevitable that the very development strategy of EPRDF (i.e. ADLI) will be the next candidate for revision owing to, on the one hand, agriculture's continued disappointing performance to reduce Ethiopia's increasing dependence on food aid and, on the other, agriculture's failure as an engine of growth in the non-agricultural sector of the economy as stipulated in ADLI's document. We turn to this in section one of this article.

Second, I believe that the question that was posed to ERDF members by ETV journalist on ETV regarding the adverse impact that the granting of usufruct right on land exerts on the realisation of ADLI's strategy was not properly addressed. This is the second reason to write this article. The members discussed only about the hurdles that those interested to invest in the sector have been facing since the time the lease system has been operational, and the opportunities now opened up by Revolutionary Democracy to curb these problems; but they did say little about its impact on the productivity of the peasantry- the driving force behind Ethiopia's agriculture- which constitutes more than 90 percent of the agricultural output and over 95 percent of the cultivated land. It is this group of the society which is most affected by a reform of any sort. There are staggering amount of writings in this area, which emphasize the need to introduce a reform in the existing system of land holding if ADLI's target of raising per capita income by two folds is to be realized by the year 2015. And also if ADLI's strategy as a development strategy is to be salvaged from possible revision. We turn to this in the second part of this article.

## 1. The Performance of Ethiopian Agriculture

In Ethiopia, like in many other developing countries, agriculture's poor performance is explained by its inability to feed the growing population, by the lack of structural transformation magnified by agriculture's continued dominance in Gross Domestic Product (GDP), and by the limited role that agriculture has played in serving as an engine of growth in economic development.

*Structural Transformation*: Agriculture constitutes the lion's share in GDP. Its average share was 68 percent of GDP in the monarch era. The share declined to 55 percent in the socialist era and presently it stands at 50 percent of GDP (table 1). Agriculture's continued dominance is also implied by its strong correlation with GDP. The share of the service sector<sup>1[1]</sup> is increasing. It was 25 percent in the monarch era and now it stands at 39 percent. The contribution of the manufacturing sector has remained within the range of 9-11 percents (table 1). The fact that agriculture has accounted for the lion's share in GDP for the past 40 years signify that the Ethiopian economy has not yet undergone

<sup>&</sup>lt;sup>1[1]</sup> The service sector consists of trade, transport and communications, banking, insurance, real state, public administration, defense, education, health and other personal services. The important component in terms of value added in the service sector since 1992 has been the distributive service sub-sector. During the socialist sector, however, the public administration and defense component was the most important component.

structural transformation and therefore that production constraints similar to those in the 60s are exerting similar influence on today's overall GDP growth.

*Agriculture as an engine of growth*: GDP growth rate was calculated for the three regimes to measure the performance of the overall economy and also to evaluate agriculture's role in GDP changes. It declined by 1.82 percentage points in the socialist era compared to the monarch's period and grew by 3.09 percentage points in the current period compared to its level in the socialist period. Further disaggregation of GDP into the different sectors reveals that decline in GDP growth rates in the socialist era was on aggregate caused by sharp declines in the service and manufacturing sectors.

Year	AGR		MAN.		SER		GDP GR
	GR	SH	GR	SH	GR	SH	
1963-1974	0.9	68	7	5	7	25	3.5
1975-1991	1.3	55	1.2	6.5	2.6	34	1.7
1992-1998	2	50	7	6.4	8	39	4.8

Table 1: Average Growth rates and sectoral shares

Source: author's calculation based on MEDaC data. GR stands for growth rate and SH for share.

GDP grew by 3.09 percentage points in the current period (1992-1998) compared to its growth rate in the socialist period (table 1). This is attributed to increased performance in the manufacturing and service sectors than the agricultural sector. "*Improved availability of inputs and spare parts to the highly incapacitated manufacturing sector made possible* 

by the intensive emergency recovery and rehabilitation effort and the accompanied economic reform program which helped rectify factor and product market distortions, are the major factors behind the profound growth registered in the industrial sector" (MEDaC, 1999). Growth in the agricultural sector, estimated at 0.62 percentage points in

the same period, is the lowest compared to the 5.38 and 5.78 percentage points growth

rates registered in the manufacturing and service sectors, respectively (table1).

Year	AGR	MAN	SER	GDP
1992	6.064631	36.06622	17.40195	11.99951
1993	-3.65075	8.864426	8.098864	1.700187
1994	3.389273	8.954231	7.229856	5.375314
1995	14.67537	7.583344	6.956627	10.6198
1996	3.437318	5.879682	7.065382	5.167619
1997	-10.2886	5.799743	10.36199	-0.53637
1998	4.20667	4.944777	8.180074	6.301688

Table 2: Comparison of sectoral growth rates (1992-1998)

Source: Adapted from data of the Ministry of Economic Development and Cooperation (MEDaC). Numbers do not add up to 100 because of rounding off errors

This implies that GDP growth has mostly been the outcome of performance in the nonagricultural sector. Growth in the agricultural sector has not been stable compared to the manufacturing and service sectors. It has been extremely vulnerable to climatic variations. In the major drought years i.e. 1973/74, 1983/1984, 1993/1994, and 1997/1998 agricultural production declined by 1.2, 17, 4, and 10 percent, respectively. Sever drought was also reported in the year 2000 but its impact on agriculture is not yet made public. Good rain years such as 1982, 1986, 1992, and 1995, on the other hand, respectively brought a 13, 19, 6, and 15 percent growth in value added in agriculture. Most of the remaining years, which exhibited positive growth rates were years of recovery.

Growth in the service sector has been relatively stable and smooth for the last 30 years except in the years 1977, 1990, and 1991. On the contrary, fluctuation has been relatively common in the manufacturing sector. Part of the growth in this sector was a drive to normal level of output. For example, value added in this sector grew in the years 1963 to 1972, 1978 to 1987, and 1995 to 1998 and declined in the years 1973 to 1977 and 1988 to 1994.

Poor performance in the agricultural sector can further be explained using food gap analysis method. The computation is made to evaluate the ability of the sector to guarantee food security to peoples residing in rural areas. Next we turn to it.

*Food availability* in rural areas during the monarch (before 1974), the Derge (1975-1991), and the current (1992-1998), without considering urban dwellers, is computed below. It was 142 kilogram per person per annum in the monarch's era. It declined to 113 and 106 kilograms respectively in the subsequent regimes. This is arrived at after a 2.5 percent allowances for animal feed and an 11 percent post harvest loss and a 6 percent average requirement for seed are made (table 3). Except for the period prior to 1974, food

availability has not been stable. It has been declining. This could be ascribed, among others, to the frequent occurrence of drought and to production increase not commensurate with population growth.

Comparison with the recommended food intake of 225 kilogram of cereals per person per annum (equivalent to recommended food intake of 2100 kcal per person per day) revealed that food deficit rose from its average level of 83 kilograms in the monarch's era to 112 kilograms in the socialist era and presently it stands at 119 kilogram per person (table 3).

Year	Rural	Cereal	Food Availability	Food Deficit Per
	Population	Production	per person	Person Per year
1961-1975	26	4.6	142	83
1975-1991	38	5.3	113	112
1992-1996	47	6.3	106	119

Source: Authors' computation based on FAO data.

Reasons given for the poor performance of agriculture vary from period to period. Illconceived development strategies were common in the monarch's and the socialist period, civil strife in the three periods, drought in all periods, and low productivity in all periods.

## Usufruct right over land a constraint in the Growth of 2. Agriculture, An overview

The land holding system before 1974 was uneven. In the north, *rist* system was dominant. It is "a claim on community membership in any village from which one could prove descent, and hence on a share of the common agricultural land" (Pausewang, 1990); but in the south, gult lordship was widespread. Gult lordship was introduced in the south as a result of Minelik's expansion southward. The  $gult^{2/2}$  lords obtained land in the form of remuneration for their service as solders.

In the south, the king made *gult* rights hereditary but left rights of *gult* holders in the north unchanged; as a result, *riste-gult* as a new system of holding emerged. Later, *riste*gult rights evolved into a freehold system, as 'land ownership appeared a precondition for investment in modern agriculture' (Pausewang, 1990). North-South discrepancies in holding rights continued until up holding rights were made uniform, following the turning of land into state hands, by the 1974 revolution.

Therefore, prior to the 1974 revolution, inequitable land tenure patterns, concentration of land ownership in a small group<sup>3[3]</sup>, tenure insecurity, and exorbitant rent or share cropping arrangements <sup>4</sup><sup>[4]</sup> were major impediments in agrarian reconstruction and

<sup>&</sup>lt;sup>2[2]</sup> The *gult* lords are a nobility of political and military leaders who had rights to collect a share of the produce of all agricultural land in a given area, in exchange for their administrative, political, cultural and judicial services (Pausewang, 1990)

<sup>&</sup>lt;sup>3[3]</sup> A progressive land tax was introduced in the third five year development plan to force these persons to put the land into use i.e. act as a negative incentive. <sup>4[4]</sup> Those tenants who operated on share cropped land used to pay rent. Attempt was made in the Third Five

Year Development Plan to replace it by a fixed rent system.

development. Tenure insecurity was thought a cumulative effect of the following: absence of cadastral maps, unclear ownership and tenancy rights, unclear boundary demarcation, and undefined landlord-tenant relationships<sup>5[5]</sup>. The traditional communal system of land ownership, which prevailed in the northern part of the country, eliminated the possibility of mortgage credit or of transactions in land. In addition, it obstructed farmers from investing in productive farming operations particularly from safeguarding against soil and water erosion (IEG, 1962; IEG, 1967).

A uniform land holding system was introduced by the March 1975 proclamation, which declared *`land to the tiller'*; consequently land was proclaimed a state property and all types of transactions on land were outlawed. Peasants were granted only usufruct rights. The proclamation in addition declared use of hired labour (except for those who were unable to plough due to age or incapacity), and sharecropping illegal.

Land distribution was carried out until all arable lands were distributed. The limited availability of arable land coupled with the growing demand for land required the introduction of land redistribution schemes. By the time land redistribution was started, cultivation had long encroached upon hillsides and marginal lands in most areas. Land redistribution continued up until it was officially banned in 1989. The ban was meant to abate diminution in holding size. But so far, since 1989, land redistribution has been made twice. First, to settle war displaced citizens, and second, to curb problems related to land shortage in the Amhara region. Now intra-household land allocation has become the only source of access to land for the newly formed households.

<sup>&</sup>lt;sup>5[5]</sup> Tenants used to be arbitrarily evicted.

Except for the buying and selling of land, most of the other constraints on land were relaxed by the March 1990 policy reform. The reform allowed sharecropping, the transfer of land to legal heirs, and the hiring of labour.

Nothing significant has been added to the land policy since the socialist government was deposed in 1991. Land is still in state hands and "the movement of land from one user to another is now possible either through short-term renting arrangements or through land redistribution" (Desalegn, 1999).

Some of the avenues through which the existing land policy impacted agricultural production are: decrease in land size, insecure ownership, and discouragement of the mobility of the rural population. These are discussed in the following paragraphs.

*Decrease in land size*: Currently holding size is estimated at one hectare. According to data from the Central Statistical Authority (CSA), in the 1996/97 fiscal year, the majority of the households accounting for 63 percent held less than 1 hectare. Those holding in the range of 1.01 to 2.00 hectares were 24 percents while 13 percent of the households were reported to have held more than 2 hectares. Comparison with similar data in the earlier years (i.e. early 80s) revealed that average holding size is decreasing i.e. households with relatively larger plots are decreasing while those with smaller plots are increasing in number. This is primarily the result of intra and/or inter household allocation of land i.e. land redistribution.

Small land size is major impediment for the application of production technology. It is found that quantity of input use in Ethiopia is directly proportional to holding size (Wolday, 1998; Mulat et al, 1998). In addition, small land size is the cause for the exclusion of many farmers from benefiting from high input package, extended by the Ministry of Agriculture and Sasakawa Global 2000. The package requires a peasant to own more than 0.25 hectares (ICRA, 1997). In addition, high intensity of crop production in most parts of the country has become a strategy to cope with the small farm sizes.

*Tenure insecurity:* Tenure insecurity has made peasants reluctant to apply sound land management practices and to make long-term investments on land (Teferi, 1994; Teferi, 1995; Sutcliff, 1995, Desalegn, 1999). One source of insecurity is land redistribution. This has made many peasants cultivate high valued but less nitrogen-fixing crops in order to avoid the risk of losing plots in redistribution before earning the maximum possible (Teferi, 1994).

Poor land management practices coupled with deforestation, which is attributed to population pressure in rural areas, has severely exposed cultivated land to land degradation. Estimates show that, cultivated land is experiencing a 2 - 3 percent reduction in soil productivity due to soil and water loss, biological, and land degradation (Brune, 1992, Ermias, 1987). Soil loss is estimated at 1.5 million tones a year. This alone is estimated to have resulted in a 2 percent decline in total output.

*Mobility of rural population*: it has arrested migration of people to urban areas and has created population pressure in rural areas, by denying access to land to those who are sustainably absent from rural areas (Befekadu & Berehanu, 2000; Aklilu & Tadesse, 1994, Desalegn, 1999). According to Desalegn (1999), "the greater mobility of peasants out of agriculture will stimulate the greater mobility of land. Land will be able to move "freely" from those who can not use it efficiently to those who can."

Population pressure in rural areas is blamed for the expansion of cultivation to areas, which were marginal and to areas previously covered by forests and woodlands. Forests, which covered 40 percent of the land area at the turn of the century, are presently reduced to less than 4 percent (FAO, 1997).

Year	Cultivated land as	Permanent Pasture	Land non-suitable for
	a % of Agricultural	as a % of	cultivation as a % of
	Area	Agricultural Area	total land area
1961 - 1974	21	79	57
1975 - 1991	23	77	56
Since 1992	32	68	69

Table 4: Land allocation

Source: Author's computation based on FAO data.

Average cultivated land as a percent of agricultural area has risen from 21 percent in the period 1961-1975 to 32 percent since 1992 (table 4). Permanent pasture, which accounted for 79 percent of the total agricultural area between the years 1961-1975, is now reduced

to 68 percent (table 4). Land classified as non-suitable for farming on the contrary is at a rise. It increased from its level of 57 percent of the total land area between the years 1961-1975 to its present level of 69 percent (table 4). This means that lands, which used to serve as permanent pasture is increasingly being put under cultivation, and at the same time that significant amount of cultivated land is being withdrawn out of agriculture. Land degradation could be one of the primary causes for the latter.

*Change in land size as a source of production increase*: in a country like Ethiopia, where intensification of land use by way of increased use of chemical fertilizer is limited, change in land size constitutes the primary source of production increase. Ethiopian agriculture is dominated by small-scale<sup>6[6]</sup> farmers who are characterized by low input and low output rain-fed mixed farming with traditional technologies (MEDaC, 1999).

This may be evidenced by figures for yield (used as proxy for technical progress in agriculture) for major agricultural products, which have not improved for the past forty years. Except for roots and tuber, yields for cereals, pulses, oilseeds, and vegetables have not registered significant improvements.

Year	Cereals	Pulses	Oilseeds	Vegetables	Roots and tuber
10.61 10.71			1.0.5	22.6	
1961-1974	7.53	7.78	1.95	32.6	35.99
1975 - 1991	11 19	8 87	2 27	33.5	61 38
19,0 1991		0.07	,		01.00
1992-1999	11.53	7.94	2.4	34.8	70.97

Table 5: Average yield of major crops

Source: Author's computation based on FAO data

<sup>&</sup>lt;sup>6[6]</sup> Small- scale farmers on average account for 95 percent of the total area under crop and for more than 90 percent of the total agricultural output (MEDaC, 1999).

According to recent estimates, chemical fertilizer<sup>7[7]</sup> is used by less than 25 percent of the farmers (MEDaC, 1999) and less than 2 percent of the country's cultivated area is covered with improved seeds (Befekadu & Berehanu, 2000). Only 4.4 percent of the potentially irrigable 3.7 million hectares of land is currently put under irrigation (FAO/WFP, 1997; MEDaC, 1999). In terms of the number of tractors in use also performance of the sector has been disappointing. According to calculations made using FAO's statistical database, average number of tractors in use was 1874 in the years 1961 to 1975. The number increased to 3865 in the years 1975 to 1991 and fell to 3121 in the years 1992 to 1998.

<sup>&</sup>lt;sup>7[7]</sup> Ethiopia' fertilizer utilization in terms of nutrient content averages 7 kg of nutrients per hectare of arable land compared to a sub-Saharan average of 9 kg per hectare (MEDaC, 1999).

## 3. Reference

1. Aklilu Kidanu and Tadesse Alemu, (1994)'Rapid Population Growth and Access to Farmland': In Dessalegn Rahmato (eds), Land Tenure and Land Policy in Ethiopia After the Derg, proceedings of the Second Workshop of the land tenure Project, 8, 35-50, Cropping Strategies in two peasant associations in North Shoa,''

Befekadu D. and Berhanu N. (2000), Annual Report on the Ethiopian Economy, vol. 1.
 1999/2000, The Ethiopian Economic Association.

3. Burn Stephan (1990), "The Agricultural Sector", In Pauswang,; Fantu Cheru, Brune S, and Eshetu Chole (eds), Ethiopia: Rural Development Options.

Dejene Aredo, 1990, "The evolution of rural Development Policies, In Pauswang,; 5.
 Fantu Cheru, Brune S, and Eshetu Chole (eds), Ethiopia: Rural Development Options.

 Dessalegn Rahmato (1999), "Revisiting the Land Issue: Options for change," Economic Focus, Volume 2 No. 4 August 1999.

7. Ermias Bekele (1987), "Ethiopia's Land Resource Base", Proceedings of the 19<sup>th</sup> crop improvement conference, Institute of Agricultural Research

8. FAO (2000), FAO Statistical Data Base http://apps.fao.org/

9. FAO/WFP, 1997, "Crop and Food Supply Assessment Mission to Ethiopia, 19 December 1997.

10. ICRA (1997), Strengthening Farmer Participatory Research and Development in Jijiga Zone, The case of moisture stress reduction in the plains and soil fertility management in the hills. Working Document Series 60, Jijiga, Ethiopia.

11. IEG (1962, Second Five Year Development Plan, 1963-1967.

12. IEG (1967) Third Five Year Development Plan, 1968-1973.

 Planning Commission Office (1973) Strategy Outline for the Fourth Five Year Plan, 1974/75-1978/79.

14. Ministry of Economic Development and Cooperation (MEDaC), 2000, Data on Macroeconomic Indicators.

15. Ministry of Economic Development and Cooperation (MEDaC), 1999, Survey of the Ethiopian Economy, Review of post reform developments (1992/93-1997/98).

16. Mulat Demeke, V. Kelly, T.S.Jayne, Ali Said, J.C.LeValllee, and H.Chen (1998).
'Agricultural Market Performance and Determinants of Fertilizer Use in Ethiopia.'
Working Paper No. 10. Addis Ababa: Grain Market Research Project, Ministry of Economic Development and Cooperation.

17. ONCCP (1987), "Three Year Development Plan," Addis Ababa, Ethiopia.

18. Schuh Edward (1998),"Some thoughts on the Modernization of Agriculture in Sub-Saharan Africa" paper presented at Conversations session at the Carter Center, Atlanta.

19. Schuh Edward (1999), "Agriculture and Economic Development." Chicago Policy Review, v.3, no.1, Special Edition 1999, pp.57-65.

20. Sutcliffe, J.P., 1995, "Soil Conservation and Land Tenure in Highland Ethiopia, "Special issue on Land rights and Access to land in Post-Derg Ethiopia, Ethiopian Journal of Development Research, 17-63-80.

21. Teferi Abate, 1995,,"Land Redistribution and Interhousehold Relations: the case of two communities in Northern Ethiopia, "Ethiopian Journal of Development Research, 17, 23-40.

22. Teferi Abate, 1994, "Land Scarcity and Landlessness in Northern Shewa: A case study from Wayu and Anget Mewgiya Peasant Association, In Dessalegn Rahmato (eds), Land Tenure and land policy in Ethiopia After the Derg, Proceedings of the Second Workshop of the land tenure project, 8, 95-111.

23. Tesfaye Teklu (2001), "Agricultural technology, health and nutrition linkages: some recent evidence from sub-Saharan Africa," East African Social Science Research Report, vol. XVII, no. 1 (January 2001).

24.. Wolday Amaha (1998), The Use of Improved seeds in Ethiopia (unpublished memo).25. Zerihun Gudeta, 1996, "Usufruct Right in Land in Grain Supply Response Analysis:

The case of Ethiopia, Ethiopian Journal of Economics, Vol. 5 no. 1.