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Patterns of Economic Growth and Poverty in Sudan

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Abstract
This paper reviewing the economic growth in real terms and have overlook to poverty levels and incidence in Sudan. However, more focus is given to per capita income, since the relation is always observed between poverty levels and per capita income growth. Furthermore, the sectoral contribution to GDP growth also reviewed, to see where income concentrates did? And what was the effect on poverty situation? Sudan was expected to achieve high rates of growth after independence due to vast and rich agricultural land, considerable livestock component as well as capable human resources. However, that do not realized for greatest part of the last five decades. After, enjoying moderate rates of growth and economic stability till 1975, Sudan began to enter into deep structural problems. Sudan's GDP grew at a trend rate of 2 % while the population was growing at around 2.8 % per annum. This has resulted in reducing the real per capita GDP by 11 % over the fourteen years period affecting the poverty situation in the whole country. Meanwhile, the causes of rural poverty in Sudan are to be found in the sustained urban bias of the development strategies adopted since independence. This tended to neglect the traditional agricultural sector where the vast majority of population lives and is the main source of rural livelihood. This has resulted in high rural to urban migration unaccompanied by either increased productivity in the sector or sufficient urban development to generate the necessary urban employment opportunities, which led to urban poverty in return.
Keywords: poverty, rural-urban, inequality, deprivations

1. Introduction

Sudan has alternating sub-periods of positive and negative growth. The negative growth periods are the longest ones, but with relatively low negative growth rates. Positive growth sub-periods are shorter with relatively high per capita growth rates. The details show that during the negative growth sub-periods there were fluctuations around the sub-period trend. Generally, Sudan's growth record was one of volatile growth (Ali, 1994). The GDP growth rate accelerating average is about 6.6 % per annum during 1996-2013. It is also worth noting that agriculture has historically been the engine of growth and has typically accounted for an average of 4% of GDP during this period. Moreover, agriculture has spill over effects on GDP also, through services and manufacturing sectors such as, agro-industries through trickle-down effect. About 80 % of the labour force employed in agriculture and related activities. Agriculture is therefore; the main dominant of year-to-year changes in poverty levels and the food security situation throughout Sudan (Osman, 2002)(Osman, 2002)(Osman, 2002)(Osman, 2002)(Osman, 2002). The weaknesses of the agricultural sector performance before 1990s were a result of failed macroeconomic and sectoral policies that distorted incentives and left agricultural infrastructure without resources. The new products, including oil, have entered the production base and petroleum has emerged as a major source of economic growth and revenues for the government (Patey, 2010). In terms of direct impact on Sudan's GDP, the government is developing methods for oil sector value added, but these have not yet been completed (Yagoob, 2015). However, agriculture continues to be the most important production sectors increasingly, the industrial sector is becoming important for growth in urban areas (Ibrahim Ahmed Ibrahim, 2001).

2. Sectorial Contribution to GDP

The structure of GDP has changed drastically between the time of independence and thereafter. While agriculture contributed about 60% of total production in Sudan; the industry accounted for 5 % and services about 35%.The agriculture only, represents 38 % of the GDP after mid-nineties. The expansion of the industrial sector took place at the expense of the agricultural sector; the industrial sector income distribution is relatively mal-distributed compared to that of agricultural sector. Because it depends very much on entrepreneurship, and the numbers of employed persons were very few. However, contribution of sectors to GDP will be further elaborated because it is of vital importance for equality structure and thus poverty levels (Elnur, 1999).

2.1 Agricultural Sector

Statistics from the National Accounts indicate a shift toward increased industrial production. Among the three main agricultural systems, irrigation contributes to 27 % of agricultural GDP. This sector also suffered lots of constraints and challenges due to many factors such as, poor infrastructure and management, magnitude and pace of the implementation of the economic reform that was, though late, reduced its contribution in GDP not

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exceeding 15 %. On the other hand, rain-fed agriculture depends on two modes of production, one is mechanized and the other is traditional. This sub-sector has registered appreciable growth due to both macroeconomic policies and favorable climatic conditions. Its contribution to GDP had risen with the highest contribution from livestock 21% followed by cash crops 6.9 %, forestry 3.2 % and lastly mechanized production 2.5 % .(Osman, 2002) This fact donates that output structure and growth of real output had moved in favor of plant and livestock traditional sector, both of which had shown steady output increase. However, productivity of the sector is still very much low compared to minimum international standards. Furthermore, production of some traditional crops such as, cotton and gum-Arabic have declined, with livestock maintaining its dominant position accounting for about half of the GDP from the agricultural sector (M. K. Fageer, 2002).

The economy of Sudan has entered into deep structural problems. Prominent of them was the major budgetary imbalance represented in excessive expenditure, growing at a much higher rate than revenues. This had resulted in escalation of the budget deficit with increased borrowing from the banking system. These unfavorable conditions have impacted negatively on agriculture performance thereafter (Yagoob and Zhengming, 2015)..

2.2 Industrial and Services sectors

The weak contribution from the manufacturing sector encourage the government to take a leading role in the industry, a policy, then cherished by successive governments, through implementation of import substitution strategies, aimed at industrial growth and transformation. The share of industry and services had increased to 18 % and 43 % of GDP respectively. Such orientation did not observe the major difference in consumption patterns at sectoral, geographical and social levels, and between income groups. In addition to the high physical capital-intensity, relative to labor intensity, the growing situation in industrial sector, without considering the labor-intensive technology, has been a bad prognosis for distribution status in the country, which though late, worsens the situation in the country in terms of poverty and equality. The services sector includes all non-agricultural and non-industrial activities. The most important of these are transport, communications, commerce, banking, education, housing, health and other social services. The high GDP contribution from the services sector; giving that few people benefited from this sector, also give a sense of voluminous deprivation in most parts of Sudan. In other words, almost all the services are, directly or indirectly, benefited the urban people and the rural people, who are out of reach of subsidized services, are not making use of the service facility. Nevertheless, the contribution of the service sector to the GDP had progressively decreased due to policies favoring the productive sectors, through provision of financing, various administrative, financial and monetary incentives, reduction of government spending and budgetary control aimed at rationalizing aggregate demand (Yagoob and Zhengming, 2015).

Generally speaking, the production structure of the Sudanese economy could be said that, not surprising, the economy was dominated by agriculture. There was virtually no industrial sector to speak of with the service sector accounted for remaining contribution of GDP. Evidence seems to suggest that the effect did not trickle down to considerably reduce poverty or expand formal employment opportunities. However, poverty reduction, unemployment and promotion of productive employment still remain as major challenges for the social and economic policy (Ali Abdel Gadir Ali, 2004).

3. Causes of Poverty in Sudan

To measure the trends of poverty in a systematic way, one needs a continuous flow of household-level data pertaining to income and expenditure. The first household budget survey carried out in Sudan was in 1968 followed by the second one on 1978. In 1992 the ILO funded the migration and labour force survey. Also, in 1992 the Social Solidarity Fund funded the poverty line survey and the last one done by CBS in 2009. However, and before reviewing poverty in Sudan, let us glimpse the factors behind poverty in Sudan (Adil Mustafa Ahmad, 1995). The development of the agricultural sector was completely ignored, but it was dichotomous in nature in the sense that the Islands of modern irrigated agriculture coexisted side by side with the vast traditional rainfed agriculture. While the former benefited from modern scale specific technologies and market access, the latter lagged behind in terms of production technologies, finance, management, research, extension, market access and rural roads. As a result of this unbalanced urban/rural development structure, the traditional agricultural sector continued to be the major source of limited supply of unskilled labour to urban centres, thereby, swelling the ranks of the informal labour markets, where there is little employment at or near the subsistence wage level. This has also exerting additional pressures on the already limited and over stretched social services and facilities. These trends were further aggravated by those displaced by both natural and man-made disasters (Nur, 1992).

In addition, there has been a clear pro- urban bias in policies adopted by successive Governments. These manifested themselves in the provision of a reasonably adequate social and economic infrastructure not matched by similar facilities in the rural areas. These pro-urban biases were further strengthened by the long running policies of subsidizing a variety of goods, consumed by urban population. However, such goods were

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out of reach of many or most of the urban poor particularly, the recent migrants from rural areas, who represent the poorest of the urban poor, are manually employed in the marginal jobs in the informal sector. But, it must pointed out that most of these consumption subsidies have been abolished under the recent economic reform programs, though electricity and piped water are still subsidized such that piped water is cheaper in urban than in rural areas. The effects of urban bias were further aggravated by government marketing policies for some of the major export crops, mostly grown in rural traditional sector. This marketing structure has adversely affected farmers' incomes, their incentives to increase production and their chances to raise their living standards. In the context of poverty alleviation, the current marketing structure for those exports needs radical reform.

The causes of poverty are more complex. Part of the explanation is certainly the lack of rural focus in the various development efforts since independence. The other part of the explanation relates to the basic characteristics of the traditional sector. In other words, it is vulnerability that constitutes the major cause of impoverishment and deprivation in the traditional sector. The unstable climatic conditions of rural Sudan, with their characteristics of frequent rainfall variability, have from time immemorial altered rural producers to the periodic oscillation from feast to famine situations. A basic strategy of rural producers was and continues to be hoarding of surpluses in good years to transcend the hardships of lean years. Furthermore, conflict in Sudan as in elsewhere; represent the most devastating factor to nation's infrastructure and welfare. Therefore, the civil strife took place in various parts of the country, represents one of the most ravaging factors and has a tremendous impact on poverty situation in the country. The war has also resulted in numerous cases of Internally Displaced Persons (IDPs) and returnees whose situation become aggravated after they were but in zero stage of living. The problems of debt and the deterioration in donor community relations have also a tremendous effect on the poverty situation in Sudan. The International Institutions such as, The World Bank and African Development Bank, used to finance several sectoral developmental projects that have a direct impact on population welfare. However, the absence of those institutions has resulted in an un-bridged gap in terms of resources availability that reduces employment opportunities (Yagoob, 2015).

4. Magnitude and poverty trends in Sudan

It is most important to note that the poverty trends differ very slightly and sometimes very greatly between groups. In general terms, the number of the poor people in rural areas has increased with a rate nearly equal to the rate of population increase. And the number of the poor urban household has increased at a higher rate than the urban population growth rate. This situation was created due to immigration took place from the rural areas to urban centres responding to the economic incentives consistent with the objectives of maintaining industrial revolution centred in urban sector. However, as we mentioned earlier, the industrial sector was not able to absorb the rural migration (Marios Obwona, 2009).

The trend of head count index in Sudan has been increasing at an annual rate of 0.5%., the number of rural households have been growing at a rate equal to the rural population growth rate while, the number of poor urban households have been growing at a rate higher than the urban population growth rate. The poverty gap ratio in the whole country has been decreasing at an annual growth rate of 0.64%. (Ali Abdel Gadir, 2002).

Table 1: Poverty Trends during 1968 - 1978

Indicator	1968	1978	growth rate
Head count Index (%)			
Rural	62.68	64.17	0.23
Urban	15.9	20.51	2.58
Sudan	51.59	54.26	0.5
Poverty Gap Index (%)			
Rural	28.11	30.56	0.84
Urban	4.56	8.58	6.53
Sudan	24.66	23.12	-0.64

Source: Estimations made by Ali Abdel Gadir "SAPs and Poverty in Sudan"

The rural urban poverty structure emerged, as a result of a hasty adoption of dual economy development modules, which advocate development through transfer of cheap labour from the rural traditional sector (agriculture) to the urban modern sector (industry). Urban modern wage sector failed to absorb the rural migrants and marginal urban jobs by the rural migrants (the informal sector) proved not to be a stepping stone to the formal wage sector (Dagdeviren, 2006).

The results shows that in the period (1978-1986) the headcount index increased from 54.3% in 1978 to 77.8% in 1986 at an annual rate of increase 4.6% and the rural urban poverty disparity was that the rural headcount index for urban increase from 20.5% in 1978 to 52.9% in 1986. However, the rural incidence of poverty (83.1) remained higher than the incidence of urban poverty (53%). However, the period had witnessed that the incidence of urban poverty had been growing at a higher annual rate 12.6% than the rural (3.3%). Meanwhile, the number of poor families in Sudan increased from 1.7 million in 1978 to 2.7 million in 1986 in an

annual rate of 6.2% which is higher than the population growth rate. Up to 1986, the number of the poor rural families exceeded the number of the urban poor families by 2.33 million but growth rate of the poor urban families exceeded that of rural by 9.4% %age points (Nur, 2003:5).

The observed high pace of the incidence of urban poverty (12.6%) was attributed to the structural adjustment programs (SAPs) and the urban bias development policies (i.e. the development that overlooks the rural areas without creating enough urban jobs) coupled with urban poverty growing faster than rural poverty (Osman, 2002). Sudan poverty gap index increased from 23.1% to 45.4% at an annual rate of increase of 8.8%. This implies that, given the incidence of poverty, the income gap ratio increased from 42.6% to 58.4% at an annual rate of increase of 3.9%. By contrast, the incidence of poverty has been increasing at an annual rate of 0.5%, but poverty and income gap ratio has been decreasing at an annual rates of 0.64% and both 1.2% respectively (improve economic conditions of the poor). We notice that the poverty levels, both in urban and rural, have increased sharply. Therefore, the situation has become more and more complicated and the existing social safety nets (Zakat and other social funds) were unable to address the phenomena. The incidence of poverty has also increasing. The national headcount index increased from 77.8% to 91.4%. The rural and urban headcount indexes increased from 82.1% to 93.2% and from 52.9% to 84.4% respectively. In addition to, the number of poor households increased from 2.71 million, in 1986 to 3.43 million in 1992 at an annual rate of increase of 4% (Nur, 1992).

Table 2: Poverty in Sudan during 1986 - 1993

Indicator	1986	1993	growth rate
Head count Index (%)			
Rural			
Urban	83.12	93.16	1.26
Sudan	52.86	84.43	3.9
	77.8	91.41	1.7
Poverty Gap Index (%)			
Rural	51.67	62.61	1.4
Urban	24.38	47.78	2.9
Sudan	45.43	59.35	1.7

Source: Estimations made by Ali Abdel Gadir " SAPs and Poverty in Sudan"

The national poverty gap index increased at an annual rate of 1.7% over the period (1986-1992). The rural and urban poverty indices increased at an annual rate of 1.4% and 2.9% respectively. The national urban mean income of the poor as a ratio of the poverty line decreased over this period from 0.42 to 0.33, from 0.54 to 0.43, and from 0.38 to 0.22 respectively. This indicates that poverty had been deepened all over the country, particularly in the rural areas. Generally, the result shows that the three main poverty indicators namely, the head count index, the income gap index and poverty gap index, had been increasing at an increasing rate all over the period. It is also revealed that, structural rural and urban forms of poverty exist in Sudan since 1986 and continued to exist at higher rates. Again, the continued urban bias characterized development in Sudan, overlooked the agricultural sector, lead to reduction in rural livelihoods. The result is that high rates of rural migration took place without creating sufficient employment opportunities for immigrants, coupled with displacement resulting natural and manmade disasters has worsened the situation. The public spending on social services like health and education was reduced and the poor are obliged to pay for these essential services, putting more pressure on their earnings in the formal sector defected their coping efforts to catch up with the rising cost of living.

5. Human Poverty in Sudan

As poverty in the human development perspective manifests itself in the deprivation of lives that people can lead, our results identified three main areas of human deprivation that correspond to the three human choices. The methodology involves the identification and measurement of human poverty indicators that are directly related to each area of deprivation. The individual poverty indicators are aggregated in a composite poverty index for each area of deprivation; these areas of deprivation are as follows:

I. Deprivation in survival, which include; the probability that a person will die before age of 40, the probability that a child will die before his fifth birthday, the probability that an infant will die before his first birthday.
II. Deprivation in knowledge; which is a combined index of four human poverty indicators that are directly related to the deprivation in knowledge and they are; people with no access to media – radio and T.V as a percentage, adults (15+) who are unable to read and write as a percentage, children at the age of basic education who dropout of basic education as a percentage, adolescents at the age of secondary education, who dropout of secondary education.
III. Deprivation in economic provisioning; which is closely related to income inability to attain the

minimum component of a decent standard of living. It is a proxy for income poverty and it combines the following poverty indicators; people with no access to electricity as a percentage, people with no access to safe drinking water, people with poor sanitation (no toilets) as a percentage, people dependent on biomass energy (firewood and charcoal) as a percentage, people with incomes below the food poverty line as a percentage.

We quickly note that while, the twelve individual poverty indicators used are head count indices, the aggregated poverty indices I, II, III by virtue of being composite indices are not head counts. Each combined poverty index can be interpreted as the proportion of the population affected by the number of poverty indicators used (Elnur, 1999).

6. Discussion

Our research is able to produce two broad types of results, pertaining to the twelve poverty indicators. Those are useful for both geographical and sectoral targeting. The first type of results is a state-level rural–urban profile of poverty for each or the three areas of deprivation. States are ranked and grouped by poverty levels; rural–urban differences in poverty are also demonstrated. The second type of results present a sector-level rural-urban profile of poverty for the whole country, using a rural-urban distribution of the national means of poverty for the three areas of deprivation. Such a sectoral map of poverty is useful in targeting poverty through the economic and social sectors.

Deprivation in survival is all over the country, but particularly, high in the rural areas. While the rural national averages of means or the probabilities that a person will die before age 40, a child will die before age 5, and an infant will die before his (her) first birthday are 20.2%, 10.5%, and 7.2%, the urban national means of the same poverty indicators are 19.4%, 9.95% and 6.89% respectively; for the whole country, are 22.77%, 11.73%, and 8.10% respectively. From this comparison, we conclude that in terms of urban deprivation is higher than that in rural, but the differences in poverty indicators are small. The rural national deprivation is almost double the urban national deprivation in knowledge. While, the rural national means of inaccessibility to media, adults illiteracy rate, basic education drop-out rate, and secondary education dropout rate are 67.2%, 27.4%, 9.8%, and 53.6%, the urban national means of the same poverty indicators are 42.4% , 15.8%, 26.8%, and 27.4% respectively . Therefore, priority in the re-education of the deprivation in knowledge should go to rural areas. Provision of basic and secondary education service is vital for the reduction in the deprivation in knowledge, because education dropout rate is the major component of the deprivation in knowledge index in all the States and across the board of rural and urban areas. The rate of inaccessibility to media (radio and T.V) is the largest component of the rural deprivation in knowledge index. In view of these results, basic, secondary, and adults education services should be extended to the rural areas with emphasis on the top poor states. Rural national deprivation in economic provisioning is higher than the urban national one. The rural national means of the proportion of people with no access to electricity (75.5%), with no access to safe drinking water (46.7%), with poor sanitation (46.5%), dependent on the use of biomass energy (79.6%), below food poverty line (55.9%) are higher than the urban national means except for the head count index (80.9%) and the proportion of people dependent on the use of biomass energy (82.8%), which are higher in the urban areas. (Ibrahim Ahmed Ibrahim, 2001).

7. Conclusion

The experience of the Sudan is unique, some studies came out with, “despite the relatively high growth, evidence seems to suggest that its effect did not trickle down considerably to reduce poverty or expand formal employment opportunities”. While people expecting the poverty levels be reduced as the country GDP increased, there is strong allegation that, poverty is increasing. In conclusion, while worldwide benefited from the global economic growth, Sudan did get to know that experience and the effect of economic growth on poverty is still very minute in general perception. Although, the prompt reason to think about is the mal-distribution of income, yet, the situation has many other interpretations and this area will further be elaborated in next paper.

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