

REVIEW

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# A critical review of rural development policy of Ethiopia: access, utilization and coverage

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## Abstract

Agriculture is the mainstay of Ethiopian economy involving major source of employment and gross national product. By African, standard rural development programme has long history in Ethiopia. It has also enjoyed a considerable attention by the government. However, the expected level was not achieved. The main objective of this review is to indicate the policy gaps in terms of access, utilization and coverage of rural development policy programme packages by different segments of people in rural areas. The programme packages of rural development policy of the country were reviewed over the past three regimes. It was indicated that there were significant gaps in access, utilization and coverage due to wrong policy priority, institutional and technological variables.

**Keywords:** Rural development, Programme packages, Development

## Background

When many African countries have shown limited commitment to supporting smallholder agriculture and when many neglected agricultural extension services in particular, the government of Ethiopia invested in both. On average, the share of national budget devoted to agriculture in the sub-Saharan Africa fell from 5.5% in 1993 to 3.8% in 2000. However, due to the commitment of heads of states in Maputo in 2003 to allocate 10% of their budget to agriculture and a recovery of attention to agriculture, Ethiopia is one of the eight countries to meet the target allocating 15% of the budget over the decade of 2003/2004–2012/2013 [1].

Agriculture is the backbone of the Ethiopian economy. This particular sector determines the growth of all other sectors and consequently the whole national economy. It constitutes over 50% of the gross domestic product (GDP), accounts for over 85% of the labour force and earns over 90% of the foreign exchange [2]. On average, crop production makes up 60% of the sector's outputs, whereas livestock accounts for 27% and other areas

contribute 13% of the total agricultural value added. The sector is dominated by small-scale farmers who practice rain-fed mixed farming by employing traditional technology, adopting a low-input and low-output production system. The land tilled by the Ethiopian small-scale farmer accounts for 95% of the total area under agricultural use, and these farmers are responsible for more than 90% of the total agricultural output [3].

According to Roling [4], rural development policies and programmes are usually developed to suit the condition of progressive farmers. Knowledge and awareness about the relative importance of each package component to overall yield give farmers room for flexibility in stepwise adoption of the technology, according to their conditions and resources. Development agents, extension professionals, subject matter specialists, farmers' representatives, politicians and researchers tend to contact only them. Policy makers and donor agencies have so far been emphasized the use of modern farm technologies as a sole source of agricultural growth in Ethiopia. However, the cost of modern technologies is so prohibitive that few farmers in limited areas of the country are so far reached. Therefore, it is high time to explore possibilities for identifying approaches that could complement existing strategies of growth [5].

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The country has varied agro-climatic zones. The government extension programme lists these as: areas of adequate rainfall; areas of moisture stress; and pastoral areas. Farmers traditionally classify them as *dega* (cool), *woina dega* (temperate) and *qolla* (low land; warm climate). This diversity makes it a favourable region for growing a variety of crops [6].

The rural development in Ethiopia has a relatively longer history than many sub-Saharan African countries. It has also enjoyed increasing government support over years, though not to be in the level expected. Review of the evolution of the Ethiopian rural development policy under different political systems reveals the significance of prevailing policies and development strategies on the contribution to agricultural development [7].

Under the Imperial Era, development policies favoured industrial development, neglecting the agricultural sector and worked mainly with the better-off and commercial farmers in and around major project areas. During the 1974–1991 periods, however, the political environment favoured collective and state farms at the expense of individual farmers. Distorted macroeconomic policies, political unrest and massive villagization and settlement programmes undermined the contribution that the rural development policies could have made. The post-1991 period is also marked with the most prominent and enduring economy-wide strategies as Agricultural-Led Industrialization (ADLI), the Sustainable Development and Poverty Reduction Program (SDPRP), Participatory and Accelerated Sustainable Development to Eradicate poverty (PASDEP) and successive growth and transformation plans (GTP I and II). These strategies intend, among others, to attain food self-sufficiency at national level by increasing productivity of smallholders through research-generated information and technologies, increasing the supply of industrial and export crops and ensuring the rehabilitation and conservation of natural resource base with special consideration of package approach [8–11].

Ethiopian agriculture has been suffering from various external and internal problems. It has been stagnant due to poor performance as a result of factors such as low resource utilization; low-tech farming techniques (e.g. wooden plough by oxen and sickles); over-reliance on fertilizers and underutilized techniques for soil and water conservation; inappropriate agrarian policy; inappropriate land tenure policy; ecological degradation of potential

arable lands; and increases in the unemployment rate due to increases in the population [12].

Agriculture progresses technologically as farmers adopt innovations. The extent to which farmers adopt available innovations and the speed by which they do so determine the impact of innovations in terms of productivity growth. It is a common phenomenon that farmers like any other kind of entrepreneurs do not adopt innovations simultaneously as they appear on the market. Diffusion typically takes a number of years, seldom reaches a level of 100% of the potential adopters population and mostly follows some sort of S-shaped curve in time. Apparently, some farmers choose to be innovators (first users), while others prefer to be early adopters, late adopters or non-adopters [13].

Despite the fact that many areas of the economy have made progress, the livelihoods of small-scale farmers are still constrained by many impeding factors. The salient constraints include: small and diminishing farm lands due to large family sizes and rapid population growth; soil infertility with decreasing yield-per-hectare ratios; on-field and post-harvest crop pests; unpredictable patterns of rain; input scarcity and outdated technologies leading to low outputs; shortage of capital; reduced market access; lack of market information; outbreaks of animal diseases and shortages of animal feed; and declining price structures [6].

The methodology followed in this work is time frame critical review of rural development policy of Ethiopia implemented over a long periods of time by different regimes and the achievements compared among the regimes based on the policy instruments adopted accordingly and the total sum of gaps over a long period since its inception in terms of access, utilization and coverage. The objective of this paper is to assess success stories, lessons learnt and loopholes of the past rural development policy of Ethiopia in terms of access, utilization and coverage.

The possible questions of this review are:

1. Were the rural development policy packages of the country accessible to different segments of society?
2. Was there any gap of utilization and coverage of the technologies?
3. What were the rural development models implemented so far in the country?
4. Were the implemented rural development models in the country appropriate?

## Literature review

### Theories of agricultural development policies

Following Ruttan [14], and Hayami and Ruttan [15], the literature on agricultural development can be characterized according to the following models: the frontier; the urban industrial impact; the diffusion; the high pay-off; the induced innovation; and the conservation. In what follows, we will review only those models which are more relevant to the conditions of Ethiopian agriculture.

The frontier model or the resource exploitation model involves an approach to agricultural growth through the expansion of the area cultivated or grazed. The southward movement of population throughout most of Ethiopian history demonstrates the importance of the frontier model in that country. However, there are few remaining areas in Ethiopia today where development along the lines of the frontier model would represent an efficient source of growth. The importance of the frontier model in Ethiopia is reduced mainly by limitations in physical availability of land in the temperate highlands. However, it is possible that government policies and institutions are contributing factors, as the World Bank noted in its recent country report on Ethiopia [5, 16]. Besides, the ever-growing population pressure over land may not allow the average size of the operational holding to expand in the highlands where more than 80% of crop production takes place.

The high pay-off model, which is also known as “the transformation approach” or “the quick-fix approach”, is based upon investment designed to expand the diffusion and adoption of the high-yielding varieties. In Ethiopia, an attempt was made to partially introduce this model (along with the diffusion model) in the Comprehensive Package Project areas, where it had a strong impact, in particular in Chilalo district of Arsi region. However, the large-scale adoption of this model has been constrained by factors such as: the inability of the public and private sector research institutions to produce new and location-specific technical knowledge; the inability of the industrial sector to develop and produce new technical inputs; the weakness of the extension facilities and related institutions to diffuse the new techniques; the inadequacy of the infrastructure to facilitate the diffusion of the new inputs; the inability of peasant farmers to acquire new knowledge and use new inputs effectively; and lack of complementary inputs such as irrigation facilities which are needed to make fertilizers and modern varieties more effective [5].

The conservation model of agricultural development, according to Ruttan [14], “evolved from advances in crop and livestock husbandry associated with the English agricultural revolution and the notions of soil exhaustion suggested by the early German chemists and soil scientists. It was reinforced by the application to land of the concept, developed in the English classical school of economics, of diminishing returns to labour and capital”. The essence of this model is explained by the evolution of a sequence of increasingly complex land- and labour-intensive cropping systems, the production and use of organic manures, and labour-intensive capital formation in the form of drainage, irrigation and other physical facilities to more effectively utilize land and water resources [14].

The strength of this model emanates primarily from the fact that “the inputs used in this conservation system of farming (the plant nutrients, animal power, land improvements, physical capital and agricultural labour force) were largely produced or supplied by the agricultural sector itself” [14]. The importance of this point in poor countries such as Ethiopia is obvious. As underlined by Ruttan [14], “the Conservation Model remains an important source of productivity growth in most poor countries and an inspiration to agrarian fundamentalists and the organic farming movement in the developed countries”.

The major factors which make this model highly relevant to Ethiopian agriculture are: the fact that Ethiopia is unable to make widespread use of existing technological backlog due to, mainly, the high costs of generation and diffusion of new techniques of production; the possibility that the improvement approach involves cost-effective techniques of production and capital formation as it is based upon the use of the relatively abundant and that it could delay the operations of the law of diminishing returns as land is saved through labour intensification; and the fact that soil conservation programmes need special attention as the resource base of the agricultural sector is being depleted at an alarming rate due to the fact that the soil erosion and desertification process continue almost unabated [17, 18].

### Practices and history of rural development policies in Ethiopia

Development Plan has been documented since the 1950s in Ethiopia. During the period 1950–1974, the political arena was characterized by absolute monarchism. In the economic sphere, markets were the driving forces

in resource allocation. Overall, GDP increased on average by 4% per year. The rate was higher than the 2.6% of growth in population [2].

According to Dejene Aredo [5], agriculture was also discriminated against by sectoral policies. The First Five-Year Development Plan placed emphasis on raising foreign exchange earnings by improving coffee cultivation, accounting for over 70% of foreign exchange earnings. Similarly, the Second Five-Year Development plan added to its priorities the establishment of large-scale commercial farms and neglected cereal production from subsistence farmers which accounted more than 80% of the cultivated area in the 1950s and 1960s. However, shortages of food in the late 1960s shifted the attention of policy makers to agriculture and priority was given in the Third Five-Year Plan without modifications to the overall growth strategy.

During the 1974–1991 periods, however, the political environment favoured collective and state farms at the expense of individual farmers. Distorted macroeconomic policies, political unrest and massive villagization and settlement programmes undermined the contribution that the rural development policies could have made. The post-1991 period is also marked with expansion of the development programmes [11]. The most prominent and enduring economy-wide strategy to guide development effort has been Agricultural-Led Industrialization (ADLI), the Sustainable Development and Poverty Reduction Program (SDPRP), Participatory and Accelerated Sustainable Development to Eradicate poverty (PAS-DEP) and successive growth and transformation plans (GTP I and II). These strategies intend, among others, to attain food self-sufficiency at national level by increasing productivity of smallholders through research-generated information and technologies, increasing the supply of industrial and export crops and ensuring the rehabilitation and conservation of natural resource base with special consideration of package approach [8–10] (Table 1).

As indicated in Table 1 throughout the phases, the interventions are not accessed by all segments of the society, limited to certain geographical areas in terms of coverage and constrained by different institutional factors.

## Conclusion

During the imperial regime, emphasis was placed on raising foreign exchange earnings by cash crops and the establishment of large-scale commercial farms and neglected cereal production from subsistence farmers which accounted more than 80% of the cultivated area. During the 1974–1991 periods, however, the political environment favoured collective and state farms at the expense of individual farmers. Distorted macroeconomic policies, political unrest and massive villagization and settlement programmes undermined the contribution that the rural development policies could have made. Moreover, concerns shifted by large towards increasing productivity of smallholders to attain food self-sufficiency at national level through research-generated information and technologies, increasing the supply of industrial and export crops and ensuring the rehabilitation and conservation of natural resource base. However, population growth, environmental degradation, climate-related decline of yield, low level of farm input innovation, capital constraints are among the pressing constraints.

Compared to other sub-Saharan Africa, Ethiopia has an admirable record of supporting agriculture; the continued state-led policies to boost agricultural production, but understanding of the complex issues involved, evidence-based analysis and policy recommendations, and continuous debate on the pros and cons of alternatives options are required. Continued public engagement in input markets and extension services, and participation of private investment in providing goods and services for smallholders in a potentially efficient manner should be encouraged. Overall assessment of the access, utilization

**Table 1 Policy regimes and development programmes in agricultural input systems and markets over the indicated periods. Source: Adapted from Spielman et al. [19]**

Period	Intervention phases	Objectives of intervention	Implementers and loopholes
1957–1967	First and second 5-year development plans	Develop large-scale commercial farms and coffee exports	Subsistence farming was neglected
1968–1973	Third 5-year development plan (comprehensive integrated package projects)	Transport infrastructure development; dissemination of high-input technologies, credit, and extension; formation of cooperative societies	Implementation on three comprehensive extension programs that focused on high-potential areas only
1971–1979	Minimum Package Program I (MPP-I)	Expand geographical coverage of the comprehensive extension programs; provide fertilizer, credit, and extension to “minimum package areas”	Fertilizer procurement managed by agricultural and industrial development bank, distribution managed by ministry of agriculture
1978	Agricultural Marketing Corporation (AMC)	Improve management of agricultural input importation, storage, and transport by handing over control of these tasks to the AMC	MoA maintains role of distributing fertilizer to farmers, disbursing credit, and estimating fertilizer demand through approx 18,000 peasant associations
1980–1985	Minimum Package Program II (MPP-II)	Expand input supply and extension service coverage threefold	Actual provision of inputs and extension was limited due to: lacking financial support for MPP-II; increasing inefficiency in MoA and AMC; fertilizer overstocking due to inaccurate demand estimates; and poor institutional coordination of input deliveries
1984	Agricultural Input Supply Corporation (AISCO)	Improve the importation and distribution of fertilizer and marketing of other agricultural inputs	As a successor to AMC, AISCO was limited by lengthy bureaucratic process needed to secure foreign exchange, high freight costs, and lack of proper port facilities, high inland transport costs, inaccurate demand estimates, and organizational inefficiency
1986–1995	Peasant Agricultural Development Program (PADEP)	Provide inputs, credit, and extension services to smallholders organized into approximately 2900 farmer service cooperatives (SC) using a training-and-visit (T&V) extension approach	As a successor to MPP-II, PADEP aimed to cover eight development zones across the country, but only received financing sufficient for three zones, all located in high-potential areas
1991–1995	Partial liberalization of the fertilizer market	Open the importation, wholesaling, and retailing of fertilizers to private companies	Undertaken by the Transitional Government of Ethiopia (TGE). Fertilizer prices remained pan-territorial and subsidized
1993–1999	Participatory Demonstration and Training Extension System (PADETES)	Promote improved seed-fertilizer-credit packages (primarily for maize and wheat) through a “training-and-visit” approach piloted by Sasakawa Global 2000	PADETES demonstrated on a pilot basis that yields could be doubled with the application of modern inputs in Ethiopia
1995-present	National Agricultural Extension Intervention Program (NAEIP)	Scale up the PADETES approach to the national level as a means of boosting cereal yields and output	Efforts to scale up the PADETES approach were less successful than the piloting demonstrated by Sasakawa Global 2000
1997–1998	Fertilizer price liberalization	Eliminate subsidies and deregulate the price of fertilizer at the wholesale and retail levels	Liberal prices have not resulted in competitive market due to the government’s continued control over marketing and credit
2000–2007	Shifting industry structure	Private companies withdrawn from the fertilizer market in 2000, succeeded by “holding” companies; cooperative unions entered the market in 2005, followed by the withdrawal of “holding” companies in 2007	The Agricultural Input Supply Enterprise (AISE) and cooperative unions emerged as the only actors engaged in fertilizer importation and are also the largest players in the wholesale and retail markets, in conjunction with the regional input supply and extension systems

and coverage of the technological packages of rural development in the country was not realized although there were significant attentions across regimes.

#### Abbreviations

AMC: Agricultural Marketing Corporation; AISCO: Agricultural Input Supply Corporation; AISE: Agricultural Input Supply Enterprise; MoA: Ministry of Agriculture; MPP: Minimum Package Program; PADEP: Peasant Agricultural Development Program; PADETES: Participatory Demonstration and Training Extension System; NAEIP: National Agricultural Extension Intervention Program; TGE: Transitional Government of Ethiopia.

#### Authors' contributions

I identified and developed important outlines, validated and designed the arguments, conceived both theoretical and empirical data and editions of the final manuscript. I read and approved the final manuscript.

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The authors declare that they have no competing interests.

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The author declares that he can submit the required data at all times. The data sets used will be available from the author up on request.

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#### References

- Berhanu K, Poulton C. The political economy of agricultural extension policy in Ethiopia: economic growth and political control. *Dev Policy Rev*. 2014;32(S2):s197–213.
- Alemu ZG, Oosthuizen LK, Van Schalkwyk HD. Agricultural development policies of Ethiopia since 1957. University of the Free State; 2010.
- Gebreselassie A, Bekele T. A review of Ethiopian agriculture: roles, policy and small-scale farming systems. Ethiopia and D. R. Congo; 2010.
- Roling NG. Extension science, information systems in agricultural development. Cambridge: Cambridge University Press; 1988. p. 37–187.
- Aredo D. The Ethiopian economy: structure problems and policy issues: the relevance of the improvement approach to agricultural growth in Ethiopia; 2002.
- Rahmeto D. Agriculture policy review. In: Tesfaye T, editor. Digest of Ethiopia's national policies, strategies and programs. Addis Ababa: FSS; 2008. p. 129–51.
- Kassa H. Agricultural extension with particular emphasis on Ethiopia. Addis Ababa: Ethiopian Economic Policy Research Institute; 2004. p. 80.
- Bure C. The package extension approach and small holders, farmers arm productivity in high potential areas of Ethiopia: the case of Shashemene area. Ethiopia: Alemaya University; 1998.
- Lemma T, Beyene F. Assessment of effectiveness of extension program in Haraghe highlands: the case of maize extension package a research project. Department of Agricultural Extension; 2000.
- Kassa B. Agricultural extension in Ethiopia. The case of participatory demonstrations and training extension system. *J Soc Dev Africa*. 2003;18(1):49–83.
- MOFED. Survey of the Ethiopian economy: review of post reform developments 1992/3–1997/8. Ministry of Economic Development and Cooperation, Addis Ababa; 2004.
- Kibret H. Land reform: revisiting the public versus private ownership controversy. *Ethiopl J Econ*. 1998;7(2):45–64.
- Diederer P, Van Meijl H, Wolters A, Bijak K. Innovation adoption in agriculture: innovators, early adopters and laggards. *Cahiers d'Economie et Sociologie Rurales*, vol. 67. INRA Department of Economics; 2003. p. 29–50.
- Ruttan VW. Models of agricultural development. In: Eicher C, Staaz JM, editors. *Agricultural development in the third world*. Baltimore: John Hopkins University Press; 1984.
- Ruttan VW, Hayami Y. Induced innovation model of agricultural development. In: Eicher C, Staaz JM, editors. *Agricultural development in the third world*. Baltimore: The John Hopkins University Press; 1984.
- World Bank. Ethiopian economy in the 1980s and framework for accelerated growth. Report No. 8062-ET, Washington, DC; 1990.
- Constable M, Belshaw D. A summary of major findings and recommendations from the Ethiopian highlands reclamation study. Paper presented at the National workshop on food strategies for Ethiopia. Alemaya Agricultural University; 1986.
- Debele B. The role of land use planning in food strategy formulation for Ethiopia. Paper presented at the national workshop on food strategies for Ethiopia. Alemaya Agricultural University; 1986.
- Spielman DJ, Kelemwork D, Alemu D. Seed, fertilizer, and agricultural extension in Ethiopia. Development Strategy and Governance Division, International Food Policy Research Institute—Ethiopia Strategy Support Program II, Ethiopia; 2011.

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