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The Political Economy of Land Degradation in Ethiopia

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Ethiopia is an agricultural country with more than 85 percent of its population engaged in agriculture. This sector accounts for more than 40 percent of the country's GDP, and earns almost all of the country's foreign exchange.

One of the immediate problems facing Ethiopia today is land degradation, particularly soil and vegetation degradation. On the average, soil erosion is 42 tons/hectare/year in the croplands, but erosion rates as high as 290 tons/hectare/year have been recorded in fields cultivated with teff (Eragrostis tef). The average soil rate loss is six times greater than the rate of soil formation, and it causes an annual reduction of 4 mm in soil depth. More than 34 percent of the Ethiopian highland areas above 1500 meters above sea level—which support 88 percent of the population, 60 percent of livestock, and 90 percent of the agriculturally suitable area—have soil depths of less than 35 cm.[1]

Although up to 40 percent of Ethiopia is believed to have been under forest cover in the past, continuous cutting of trees for cultivation, fuel, building, etc. has reduced the forest cover to less than 3 percent at present. The Ethiopian economy is, indeed, a biomass fuel economy since fuelwood, dung, charcoal, and crop residue account for 93.9 percent of the country's total energy supply, of which 77 percent is derived from fuelwood.[2] In many parts of Ethiopia, hills are devoid of vegetation and bare soil is common. On the Shewan Plateau, for instance, the aboveground biomass is as low as 73.35 gms/m2 in grazed sites, the livestock density of which is three times the carrying capacity.[3]

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The felling of trees for various purposes, the cultivation of upper catchment areas and steep slopes, which should normally remain under protective cover, and the high stocking rates have produced high rates of land degradation. Over the years, a "deplorable landscape"[4] has been produced, making Ethiopia "one of the largest areas of ecological degradation in Africa."[5] According to estimations made by the Ethiopian Highlands Reclamation Study (EHRS), about 3.7 percent of the Ethiopian Highlands are so degraded that they cannot support crop cultivation any longer. If present rates of land degradation continue uncontrolled, another 18 percent will be unsuitable or marginally suitable for cultivation by 2010 A.D. In general, 75 percent of the Ethiopian Highlands are threatened by degradation, and they require conservation measures of one kind or another,[6] while 5 percent of the country's area should be planted with trees to supply it with its fuel requirements in the period 2010–2020 A.D.[7]

Land degradation is, thus, a serious problem in Ethiopia, and it is an important element in the poverty and backwardness of Ethiopia's rural population. It reduces food production and it has even created barrenness in some parts of the country. It is abundantly clear that if a balance between population and food supply is to be maintained, a concerted effort must be made to reverse present trends. An increase in food production and standard of living in Ethiopia can be achieved only by conserving its land resources and by introducing development programs that ensure sustained yield. To achieve these objectives, however, the *real* processes and causes of land degradation must be understood. This article aims to present an overview of the various forces that have resulted in the present state of land degradation in Ethiopia. The article, in particular, draws attention to links between political economy and land degradation.

Root Causes of Land Degradation in Ethiopia

Land degradation in Ethiopia has been variously attributed to peasants' ignorance of proper land management practices or even to their sheer laziness. Aregay, for instance, stated that the Ethiopian people have not been traditionally conservation-minded and that "large-scale soil and water conservation dates back to only a few years, at most a decade,"

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and being "unaware of the catastrophic consequences," peasants have used "destructive land-use practices."[8] This explanation suggests that land degradation is essentially the peasants' fault. Another view regards population growth as the primary land degrading factor. In the Ethiopian Highlands in particular, population is believed to have exceeded the carrying capacity of land.[9] The reasoning employed here is simple; high growth rates of population lead to burgeoning needs for food, fuel, shelter, etc. The supportive capacity of local environments was overburdened, leading to overgrazing, overcultivation, and deforestation—the three culprits of land degradation.

Recent studies and available evidence indicate that the notion that Ethiopian peasants have not been conservation-minded is not valid as evidenced by the existence of numerous conservation structures in various parts of the country. Irrigation, terracing, and drainage have been practiced for centuries in several parts of the highlands, especially in Tigray, Shewa, Gojjam and Wello.[10] In fact, von Breitenback[11] indicated that the importance of forests and the role they played in controlling erosion and regulating climate was recognized during the reign of king Yacob (1596–1603; 1605–1607), when the Wofwasha and Jibat forests were declared watershed reservations and the Wachacha and Yerer mountains were afforested. Menilek II also appreciated the importance of forests, and he declared all forest resources state property; he also formulated a policy that liberated forests from subjection to agricultural purposes.

The Forestry and Wildlife Division of the Ministry of Agriculture, which was created in 1945, also attempted through legal actions to protect the remaining forests. The 1955 constitution again declared all forests state domain, but the 1960 civil code declared all trees an intrinsic elements of the land, thereby confirming private ownership of forests. With the promulgation and introduction of the civil code, "the theoretical principle of state supremacy over forests definitively collapsed,"[12] and landlords, who feared that the state might expropriate uncultivated and forested lands started to clear and distribute them to tenants.

In 1965, the Private Forest Conservation and the Protective Forest Proclamation were issued while in 1969, the Protection and Regulation of State Forests was decreed. These proclamations empowered the Ministry of Agriculture to exercise an overall authority on the protection of forests, but they achieved little as their implementation was rendered al-

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most impossible by powerful elites and families who owned large tracts of land. After the 1974 revolution, forests of 80 hectares or more were declared state property. In spite of such attempts, however, deforestation continued unabated and by the beginning of the 1970s, Ethiopia was already annually importing wood products worth 20 million birr.

Population growth per se need not necessarily be destructive, except when it occurs in certain socio-economic situations. Many countries have population densities higher than those of Ethiopia, but they do not suffer as severe land degradation as does Ethiopia. This fact suggests that overutilization of land resources, due to population increase, is not a universal phenomenon, but a system-specific process, the occurrence of which reflects only the presence of underlying socio-economic and structural problems.

The survival of peasant societies depends on land resources, and such societies cannot afford to be lazy or unaware of destructive practices. James McCann, for instance, found that peasants in Northern Wello remained resilient in their way of life despite growing state obligations and the need to support the numerous aristocracy, a condition which often pushed peasant household economies to the edge of bankruptcy. He takes their ability to cope as sufficient to prove that Ethiopian highland peasants, as workers and consumers, were "effective managers of resources at their disposal."[13] The view that land degradation is the result of the cultivator's imputed negligence is, thus, unwarranted. Smallholding peasants, as subsistence seekers, were forced to overutilize land or simply pushed into marginal lands by circumstances and institutions far beyond their control. Overgrazing, overcultivation, and deforestation are not the real causes of land degradation, but only the last phases in the long chain of extractive processes that finally have produced degraded landscapes.

Land degradation is not, therefore, the inevitable result of population increase or cultural traits, but a product of the interactive processes of human activities with the physical environment in a highly extractive socio-economic context.[14] The degradation of land in Ethiopia is closely intertwined with the country's political economic realities, which changed the resource access profile of Ethiopian societies.

The history of the Ethiopian peasant is a history of perpetual impoverishment and therein lies the root causes of degradation. Subjected to

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exploitation, taxation, forced labor, persistent looting, and wanton destruction of villages, crops, and livestock by the nobility and soldiery, the Ethiopian peasants' lives have always been mean and precarious. The Ethiopian peasant was left with little produce each year, and he lacked the resources, stability, and guidance to alleviate the deterioration of rural life and the environment. Such conditions prohibited the development of optimal adaptive mechanisms since, as Shanmugaratnam observed, "poverty induces both demographic explosion and ecological destruction as individually rational components for survival strategies."[15]

The success and welfare of peasant households in Ethiopia heavily depended on the availability and maintenance of a viable human and oxen labor. McCann[16] in his study of Northern Wello and Bauer[17] in his study of Tigray, both of which are highly degraded and famine-prone areas, found that household size and oxen ownership are highly correlated with household income. Bauer further discovered that it was the desire and ultimate aim of every Tigrayan to establish a large household. For Northern Wello, McCann calculated that each peasant household needed to keep at least 10 head of cattle to maintain a pair of oxen through time.

However, as each household expanded its household size and tried to retain large herds of cattle, the need for additional land increased considerably and forced people to expand farming to forested areas and even steep slopes. The long-term effect was to reduce the productivity of land and increase its vulnerability to degradation. What is rational and beneficial at the individual household level thus became irrational and even destructive at the community level. In this way impoverishment, population increase, and land degradation became mutually reinforcing processes, ultimately disastrously upsetting the balance between local life-support systems and population growth.

Land degradation in Ethiopia, therefore, has its roots in the power structures and political economic processes that created exploitative forms of property relations, governed the distribution of produce, and regulated access to resources, especially land. This article argues that it was the excessive rents tenants had to pay, the lack of protective tenurial legislation, the socio-economically incompatible development programs and projects, ineffective extension works, and credit arrangements that benefited the non-target population more—in short, forces

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that generated and perpetuated rural poverty—that marginalized and forced peasants to use the land far in excess of its productive capacities.

Land Tenure, Landlessness, and Land Degradation

According to Huntingford,[18] land was communally owned in early Ethiopia, and it was only with the progress of settlement that the land occupied by the original settlers came to be recognized as belonging to their descendants. With time, Ethiopian kings started to acquire large tracts of land by confiscating the property of rebels, or by conquering new lands, ultimately becoming the absolute owners of all land in their kingdom. As such, the kings also gained "complete freedom of action" to allocate land to churches, monasteries, nobles, high officials and favorites.[19] These grantees were given the right to all the tribute with or without a fixed annual payment to the kings. They were also given the right to employ forced labor. This "extensive but piecemeal granting of land,"[20] ultimately created private interests of various kinds and, with time, produced plurality of ownership systems. As this process intensified, the landed emerged as a prominent and powerful class as compared to small-holders and landless tenants.

The first recorded land grants date back to the second half of the fourth century when kings Ella Abraha and Atzebeha gave lands to the cathedral of Axum. This practice was exercised by all succeeding kings right up to Emperor Haile Sellassie I, who between 1942 and 1969 granted 3,973,320 hectares of land to civil servants, soldiers, etc.[21] Through such grants, the church became a major land-owning institution in Ethiopia. For instance up to 1855, about 167 land grants were made to the cathedral of Axum. Similarly, the list of land estates given to the monastery of Debre Demah by King Dawit I (1380–1409) alone included the names of 106 villages, while the Monastery of Debre Damo owned more than 60 villages.[22] Similar land grants were made to imperial relatives and other favorites and numerous villages came be owned either by the church, royal family or other dignitaries. Owing to such grants, considerable land, the main source of wealth in Ethiopia, came into the hands of a few people, which rendered many peasants landless tenants.

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Frequent dispossessions and evictions instilled feelings of insecurity and discouraged cultivators from taking proper care of the land. One of the early travelers to Ethiopia, Manuel de Almeida, for instance, observed:

> It is so usual for the emperor to exchange, alter and take away the lands each man holds every 2–3 years, some times every year, and even many times in the course of a year, that it causes no surprise. Often one man ploughs the soil, another sows it and another reaps. Hence it arises that there is no one who takes good care of the lands he enjoys. There is not even any one to plant a tree because he knows that he who plants it very rarely gathers the fruit.[23]

In 1973, 42 percent of Ethiopian land was classified as crown land, 26.5 percent as private feudal land, 17.5 percent as church land, and 14 percent as communal and private peasant land.[24] Mesfin noted that as a whole, 39 percent of the peasants were landless while about 49 percent of them cultivated their own land; the remaining 12 percent were part-owners and part-tenants. In general 61 percent of the peasant households owned only 26 percent of the cultivated land, which on an average was 0.62 hectares per household, while 18 percent of the households owned 53 percent of the land.[25] The proportion of peasants whose holdings were greater than two hectares was extremely low. On the other hand, some of the land that was owned by the church and other dignitaries was left fallow. According to Galperin,[26] up to 50 percent of the church land was left fallow in 1973.

The result of these land grants was the emergence of property relations that constrained peasants' access to resources, especially land, which is central to the peasant mode of production. It also led to exploitative agrarian relations as peasants had to rent land from landlords since the small holding could provide only meager subsistence. Peasants rented 48 percent of the cultivable land in the country, but the figure varied from 17 percent in Wello to 73 percent in Illubabor.[27]

The role of the state in regulating tenant-landlord relationship was negligible, leading to excessive exploitation, which further worsened cultivators' partnerships with the environment. According to the civil code of 1960, landlords could collect up to 75 percent of the harvests as

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rent. According to the same law, all trees were assumed an intrinsic quality of land, and tenants had to either buy them from landlords or they had to gather them from steep slopes that did not belong to landlords. In addition to the fixed rents and taxes on grain and livestock, tenants and owner cultivators had to make numerous ad hoc payments to local elites, officials, churches etc. Since most tenants had only verbal agreements with landlords, they could be evicted any time. Mann, for instance, found that in Chore Woreda, Shewa, the length of tenancy had not been fixed in 98.58 percent of his sample study, and 96 percent of tenants could be evicted with 2–5 months notice.[28]

The land proclamation of 4 March 1975 abolished landlordism, but it effected little redistribution of resources in line with peasants' needs. By declaring land the collective property of the people, the state became the real owner of land. Peasants were given only usufruct rights, and by maintaining the sole right of allocating land, the state behaved much as a landlord in its dealings with peasants.[29]

As McCann has rightly observed, the proclamation, at most, may have "addressed historical contradictions in the land holding in Menilek's areas of expansion," but it did little to change the "technical or social basis of production in the north...where stratification at the level of production remained largely intact."[30] Land fragmentation increased since land had to be divided and redistributed as new households were established, seriously reducing existing holdings.

In Tigray, for instance, whereas only 45 percent of the peasants had less than a hectare before the proclamation, the figure had risen to 65 percent in 1985.[31] The Dergue regime, on the other hand, refrained from supporting peasants as such, and instead introduced preferential distribution of inputs and credit in an attempt to lure peasants to join cooperatives. With shrinking holdings, unavailability of inputs and falling yields, fallow phases were reduced, and marginal land, pasture land, and forested lands were increasingly converted to farming, making the land more vulnerable to degradation.

With the transfer of land resources to landlords and the state, peasants lost control over the land and, therefore, the power to make informed decisions relating to its proper use. In this way, much ecological and economic flexibility was lost, and peasants were forced to engage in production practices that rapidly exhaust soil fertility.

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The transfer of land resources, therefore, had far-reaching consequences. First, rent arrangements before 1975 and frequent redistributions thereafter acted as disincentives to peasants. Tenancy insecurity hindered cultivators from employing appropriate land management practices. Once cultivators were alienated from the land, they tended to exploit it at the expense of future needs. Since benefits derived from the use of inputs and other improved management practices might not cover their additional efforts and investments, tenants refrained from land improvement practices. In the study made by Mann, for example, 70 percent of the tenants had made no improvement on the land. More interesting is the fact that over 90 percent of those who made improvements were not compensated, even if their tenancy had terminated before the benefits of the improvement were fully realized.[32] The process of redistribution in the post-1975 years had similar effects.

Second, the transfer of rural produce in the form of rent to landlords and in the form of taxes to the state, eroded the economic base of peasants and continually impoverished them, often creating high rates of indebtedness. Extraction of rural surplus always had left the Ethiopian tenant in a highly depressed condition, and in the absence of inputs and/or means to purchase them, crop production could be increased only by physically expanding the cropland. Thus forests and grazing lands were cleared year after year. The problem was further compounded by population growth, which forced peasants to extend their farm lands to marginal land, including steep slopes.

Third, as poverty and landlessness intensified, peasants turned to off-farm activities like selling woodfuel to augment their meager income. According to the Biomass Fuels Supply and Marketing Review, 67 percent of peasants who bring woodfuel to Addis Ababa report that they depend on woodfuel for more than 50 percent of their annual income.[33]

The transfer of resources appears to have produced in Ethiopia the same results that the onslaught of capitalist modes of production produced in Africa: eco-demographic marginals—i.e., people denied of their bases of survival. Eco-demographic marginality occurs through the process of social allocation of resources, which ultimately pushes people to marginal places.[34] In Ethiopia, marginalization concurred with ever

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intensifying impoverishment and locked peasants in a vicious circle of land degradation.

Political Instability, Wars, and Land Degradation

Warfare has also contributed directly or indirectly to land degradation. Before the establishment of Addis Ababa as a permanent capital city in 1886, Ethiopian kings led a more or less predatory life, fully dependent on peasants who were, more often than not, looted and mistreated by their soldiers. Soldiers were not paid in Ethiopia in the past, and it was difficult for them to carry provisions over rugged terrain and long ways. The Ethiopian peasant was, thus, required to supply soldiers with whatever they wanted. It was common, almost customary, for soldiers to take by force what was not willingly given to them, "and by that means lay waste their own land no less than enemies."[35] In fact, soldiers used to form forage parties that invaded, looted, and later on burned whole villages. It was also common for kings and local chieftains to send such forage parties to areas that refused to pay taxes, showed signs of rebellion, or simply lost their favor. This greatly increased peasant obligations and burdens, and the places through which soldiers marched were left in desolation.[36]

The numerous fightings among rival kings and sovereigns for supremacy had adverse effects on the environment. Vanquished areas were brutally plundered and looted, leaving behind devastated lands. During the Zemene Mesafint (Era of Princes, 1769–1855), for instance, a terrible civil war broke out in the country, and some provinces were almost completely ruined. A large number of free landholders were dispossessed and became soldiers of fortune. They were so ruthless and rapacious that, at times, whole villages abandoned their lands and emigrated to neighboring territories. Many peasants joined armies, since that involved less risk than working the land.[37] As late as 1930, Ras Gugsa's army "...stripped bare areas such as Wadla, Delanta, Muquet and Shadaho in Southern Wallo before crossing to Takazze."[38] Such lootings, coupled with the stress that the preparation for war created, had disastrous effects on household production and further acted to impoverish rural communities.

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More recently, the peasantry has also suffered similar maltreatment. Peasant rebellions were brutally crushed in Bale, Gojjam, and Tigray during the reign of Emperor Haile Sellassie I. Moreover, as the state apparatus expanded with its army and police, the tax burden of peasants increased. With war engulfing the whole country after the overthrow of Emperor Haile Sellassie I, peasants were required to contribute to the defense of the "motherland." The Dergue regime allocated a greater part of the national resource needed for development for military purposes. Under the banner, "Everything to the war front," a substantial amount of human, material, and financial resources, badly needed for development, were wasted in the preparation and execution of war.

The Dergue regime also used to bombard rebel-held areas, and in many parts of Welo and Tigray, crops, infrastructure, villages, and other means of livelihood were deliberately destroyed to deny rebel forces access to food and other resources or as punitive action against peasants who supported rebels. For fear of such bombardments, peasants in many places in these regions worked their fields at night, which greatly reduced their efforts to protect land or control degradation. Moreover, extension services, soil and water conservation works, afforestation programs, etc. were disrupted in the war zones of Tigray, Northern Welo and Gonder, where land degradation reduced large areas to wasteland, while conscription by all warring parties deprived the same areas of their most able-bodied and most productive population.

During the famines of 1984/85, the Dergue tried to use food as a weapon against Tigray and Eritrea. While reportedly spending more than US$150 million on the preparation and inauguration of the Workers' Party of Ethiopia (WPE), the government refrained from cooperating with donors in the transportation and distribution of food in affected areas. As the Dergue refused safe passage of food to Eritrea and Tigray, hundreds of thousands of people were forced to abandon their villages and moved to the Sudan and elsewhere in search of relief assistance.

In the absence of a favorable political atmosphere, and peace and stability, peasants' efforts to protect the environment and combat degradation remained highly constrained. The wars and accompanying looting depleted the economic bases of peasants and worsened their position. After such disruptions, peasants usually found it difficult to recover,

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and much time elapsed before they started to work their lands properly and imaginatively.[39]

Modernization, Development, and Environmental Vulnerability in Ethiopia

It is widely argued today that agricultural and nomadic societies are, at least partially, adapted to periods of stress, but recent developments in the political and economic spheres have undermined their ability to withstand the impacts of natural disasters.[40] This has come about by the introduction of modernization processes and development projects that are environmentally incompatible with local production systems.

In Ethiopia, modernization has been largely understood as the weakening of local autonomy and the extension of the central government's control over local politics. The major aim of modernization has been, therefore, continuously to "focus the national political economy on the capital."[41] This focusing, which was first started by Menilek II, was further articulated by Haile Sellassie and continued unabated during the Dergue. This process of modernization intensified rural exploitation and cost the Ethiopian peasant a lot. Asrat has put this process vividly as follows:

> Menelik [II] unlike his predecessors created permanent outposts from where especially the newly integrated lands in the south were ruled. The quarters of the Emperor's viceroys became centers of agglomeration where mainly administrative matters were executed. The peripheries of the new towns, in addition to catering for their supplies, were exploited of such resources like coffee, ivory, slaves, etc. that were exported to raise the foreign exchange required to implement the modernization programs, which included the construction of Addis Ababa. Thus the one way flow of resources from rural to urban areas was made more systematic than hitherto and has continued to the present.[42]

As the national economy became more focused on Addis Ababa, the capital developed as the political, social and economic core of the country, and it effectively extended its economic domination to the rest of the country. The core-periphery distinction became highly pronounced,

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and the flow of resources from the periphery to the core was greatly amplified. Leaman, for instance, concluded as follows after closely examining the spatial patterns of capital flow in Ethiopia over the 1964–1973 period.

> Thus the ten-year patterns of capital flow through the Commercial Bank of Ethiopia viewed by examining the annual value of bank deposits less the advances in loans illustrate a net inward flow primarily to Addis Ababa and a lesser flow to Asmara. At the provincial level the primary core region province of Shewa shows the largest inflow of capital.[43]

The loss of local autonomy and the extension of central control to the rural areas further stimulated the extraction of rural produce and intensified impoverishment. Furthermore, decisions were no longer made in response to the needs of the rural areas but as a result of priorities generated at the capital. Most of the plans and decisions did not consider the pressing needs of the rural areas whose resource base was continuously deteriorating.[44] The costs of creating a central bureaucracy, modernization, and urbanization simply increased the "vulnerability of an already depressed and rapidly growing rural population, leading to severe environmental stress and degradation."[45]

The introduction and establishment of incompatible large-scale irrigation schemes has also contributed to land degradation in Ethiopia. A good example comes from the Awash valley, which formed a survival corridor for the Afar pastoralists. The trees and shrubs that grow after each flood and the riparian vegetation that follow the river provided fodder for their livestock. Since the area was infested with malaria, the Afar grazed their livestock on it undisturbed up to the 1950's.[46] However, with malaria eradication programs and the growing attitude that pastoralism was a wasteful type of land-use, the valley was earmarked for plantation agriculture.

The expansion of irrigated commercial agriculture in this region pushed the pastoralists out of their traditional grazing zones to more vulnerable areas. Irrigated commercial farming has continued to expand in this area, further reducing the size of land available for grazing as well as blocking migration routes and watering sites. Combined with in-

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creases in human and livestock population, it has put pastoralists under "extreme ecological stress," and presents a "scenario where the very survival of the Afar people is rendered precarious."[47] The establishment of the Awash National Park has also deprived pastoralists of some of their traditional grazing areas, and it is perhaps paradoxical that a measure taken to conserve should become a prime cause of degradation. Furthermore, a soda extraction plant has been established at Lake Abyata, which is in the middle of the Rift Valley Lakes National Park, and the plant is destroying an important bird ecology. This shows not only policy inconsistency, but also how the prospects of profit relegates conservation to secondary importance.

By pushing the pastoralists into more fragile environments, the state has not only disrupted the pastoral mode of production, but it has also effected a steady build-up of pressure in the surrounding marginal areas. This appears to have increased the famine potential of the pastoralists, as indicated by the 1984–85 drought when about 200,000 Afars[48] were left in need of relief assistance.

Biases and Contradictions in Ethiopia's Agricultural Development Policy

Ethiopia launched its First Five-Year Plan in 1958 and four others were launched before the 1974 revolution. Thereafter, a series of annual plans were introduced, which were soon replaced by the Ten-Year Plan, 1984–1994. A glance at the plans shows that agriculture was not given proper attention.

The First Five-Year Plan (1958–1962) emphasized the development of infrastructure, which was then regarded as the major impediment to the development of the country. Although agriculture was seen as providing employment for the rural population, food for the growing urban population, export crops and agricultural raw materials, the Imperial Ethiopia Government was convinced that there was no need to change the existing methods of production. The plan envisaged only an increase in food production via physical expansion of the sown areas.[49] The Second Five-Year Plan (1963–1967) emphasized industrial development, and it was only in the Third Five-Year Plan (1968–1972) that agriculture assumed, at least in words, importance.

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Toward the end of the 1960s, the "adverse effects of previous agricultural policies were being increasingly felt" as urban and rural population growth outstripped food production.[50] During this period, there was also a growing pressure on Ethiopia by aid donors to give priority to rural development as efforts at industrial development were not yielding the intended results. The Third Five-Year Plan, therefore, appears to have been prepared in response to lagging food production and external pressures, but despite its emphasis on agricultural development, the capital investment allocated to this sector was 10.9 percent of the total planned investment of 2865 million Ethiopian dollars.[51] In relative terms, this was about 10 percent less than the capital investment allocated in the Second Five-Year Plan. Anyway, the strategy adapted by the Third Five-Year Plan was to concentrate on relatively small, sharply defined regions of high potential. Two types of rural development programs were introduced: the Comprehensive Rural Development Projects (CRDP), and the Minimum Package Programs (MPP).

The first CRDP, the Chilalo Agricultural Development Unit (CADU), was launched in 1967 as a result of joint agreement between the Ethiopian Government and the Swedish International Development Agency (SIDA). CADU was not an internally developed project, but a copy of the Comilla program of Pakistan. The SIDA experts spent a lot of time to study what might be transferable to Ethiopia, but failed to gather adequate information on local land tenure systems, social structures, behavioral patterns, etc. Despite thorough studies of the lessons of Comilla, the Swedish experts did not properly understand what made Comilla a success story. They "adopted the procedures but not the principles involved.... CADU, unlike Comilla, was not oriented to people as people, but as objects who were to be planned for."[52] A similar project, The Welayta Agricultural Development Unit (WADU), which was supported by the International Development Association, was launched soon after CADU.

Due to inadequate assessment of the socio-economic backgrounds and power structures of the project areas, CADU ended up benefiting large-scale farmers, even though its aim was to help smallholders. It was soon discovered that the larger proportion of credit, for instance, was going to farmers with 40 hectares or more. CADU soon adopted a policy in which only cultivators with 10 hectares or less were eligible for

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credit, but the provincial elites and largeholders had already learned the advantages of new inputs and improved methods of cultivation. Motivated by profit, elites began to acquire more land, while landlords started to evict their tenants as they engaged in large-scale mechanization. The government's policy, which allowed duty free imports of machinery and spare parts, fuel tax waiver, credit and foreign exchange funds for buying tractors, etc., made commercialization an attractive investment, and mechanization and commercialization soon spread to other areas like Shewa where tenants were replaced by tractors. Most evictees squatted on the surrounding unusable and less suitable lands or became laborers on the commercial farms. Moreover, commercialization increased land value and rent for tenants and had disastrous impacts on small-scale production.[53]

By the beginning of the 1970s, the comprehensive projects were found too expensive to duplicate in other parts of the country, and the Minimum Package Program (MPP) approach was launched in 1971.[54] The MPP aimed was to provide small cultivators in various parts of the country with improved seeds, fertilizers, implements, etc. The Extension and Project Implementation Department (EPID) of the Ministry of Agriculture was given the responsibility for the program, which it hoped to spread to the whole of Ethiopia by 1980.

The MPP soon faced shortage of fertilizers, improved seeds, and trained manpower. These conditions forced EPID to restrict its activities to accessible farms along the major transport routes, and the larger proportion of smallholding peasants and tenants remained outside the orbit of its services. Once again the landlords and elite were quick enough to see the opportunities offered by the program, and like those at Chilalo, they began to evict their tenants.[55] Both the CRDP and the MPP show "the contradictions resulting from the attempts made at modernization in the face of severe institutional constraints."[56] Evictions pushed peasants to peripheral positions in the socio-economic system of the country, thereby accentuating their poverty and deprivation.

The land reform proclamation of 1975 offered fresh opportunities for developing and restructuring agriculture, but these opportunities were not properly exploited, and the proclamation failed to release the resources and energy of the rural population as expected.[57] Even though the Dergue tried to maintain a populist stance on the peasantry and or-

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ganized them into Peasant Associations, it did not go beyond the "official rhetoric regarding the role of peasants and their associations in socialist reconstruction."[58] The Dergue government focused on socialist transformation of agriculture and devoted most of its efforts and resources to achieve this goal.

Agricultural development, narrowly understood as mechanized large-scale farming and State Farms and Cooperatives, held central position in the Dergue's strategy for agricultural development. To that end a massive drive to cooperativization was started in 1979. By the end of the Ten-Year Plan, Cooperatives and State Farms were expected to be the dominant forms of production in rural Ethiopia. The Ministry of State Farms and Ministry of Coffee and Tea Development were established in 1980 followed by the establishment of the Agricultural Marketing Corporation (AMC) and Coffee Marketing Corporation (CMC). The Minimum Package Program II (MPP II), which involved the selection of three to five farmers from each peasant association and/or cooperatives for technical training, was launched. Villagization and resettlement programs were also started as adjuncts to the objective of socialist transformation.

In an attempt to encourage peasants to join cooperatives, certain privileges were offered solely to Producers' Cooperatives. They received the best lands, and grazing lands that were previously open to all were enclosed for exclusive use of Cooperatives. Inputs were made available to them at subsidized prices and they paid less tax than individual holdings. Moreover, cooperatives had access to additional labor from peasant associations during peak seasons.[59]

State Farms, whose size increased from 55,000 hectares in 1977 to about 210,000 hectares five years later, enjoyed similar privileges. In the process of expanding State Farms, some peasants in Gojjam, Arsi and Bale were forcibly evicted from their land and resettled elsewhere.[60] The State Farms absorbed up to 85 percent of the budget set aside for agricultural development,[61] but eventually proved to be a waste of resources. Their productivity remained lower than land productivity in the peasant sector for some important food crops. The average yields per hectare for pulses and teff, for instance, were 2.97 and 5.57 quintals in the State Farms in 1985/86, while in the peasant sector yields were 7.04 and 7.48 respectively.[62]

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The problem of land degradation was further aggravated by the government's policy of resettlement and villagization. Goyder and Goyder argue that for resettlement programs to be effective they must be preceded by careful study in which areas that are most severely affected by land degradation are identified, and the consent of those being moved and those receiving are ascertained; this should be part of a development strategy which combines with schemes that conserve water, soil, forests and other resources in both areas of origin and destination.[63] However, the resettlement programs started by the Dergue in 1984/85 and before had none of the attributes alluded to above; they were, in fact, highly constrained by poor planning and poor funding. Few people were actually moved from overpopulated and highly degraded places like Northern Wello; people were instead rounded up from areas that did not suffer severe degradation as local and regional party officials competed to fulfill their resettlement quotas. On the other hand, pressure around resettlement areas like Jarso and Ketto in Wellega has increased, and it is causing serious damage to land as settlers clear forests for fuel, construction, and cultivation.[64]

Villagization has created similar problems. The process was initially started in Bale to control peasants after the Somali invasion and, later on, in Harerge after the Oromo Liberation Front (OLF) intensified its activities there, but it soon spread to other parts of the country.[65] As peasants were instructed to abandon their homesteads and move to new locations, much vegetation was destroyed in the construction of new houses and clearance of new sites. Through the institutions created, however, the military government strengthened its control over rural resources, especially land and its products. For example it was reported that peasants found it difficult to conceal grain surpluses from the AMC after villagization.[66]

In a political system of democratic centralism, which permits only the top-bottom flow of decisions and in which institutional instruments are designed to serve the interests of the state and its machinery, peasant associations and even agricultural producers' cooperatives were unable to articulate the interests of their members and present them for consideration in decision-making. These organizations and institutions merely improved the state's access to peasants without a corresponding improvement of peasants' access to the state or its instruments even at

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local levels. They were used by the state to implement its programs of villagization, conscription, contribution for the defense of the motherland, state marketing, etc. The combined effects of these programs caused a steady depletion of the resource base of peasants.

The AMC is a good example in this regard. All farmers were required to deliver a fixed quota to it, and for some crops like horse beans, the AMC price was 14.86 birr per quintal lower than the cost of production.[67] Needless to say, such imbalances had negative effects on peasants' productivity and capital accumulation, and acted as disincentives for land improvement investments.

The 1984–85 famine, coupled with pressure from donor organizations, forced the military government to review its development approaches. In June 1985, a new rural development program, called Peasant Agricultural Development and Extension Project (PADEP), was launched to replace the MPP-II, which was officially terminated in May 1985. PADEP emphasized a regional approach to agricultural development. Accordingly, the country was divided into eight zones on the basis of similarities in agricultural resource bases, especially agroclimatic conditions, cropping patterns and administrative convenience. A total of 31 high potential *awrajas* were selected from the eight zones as areas of emphasis.[68]

PADEP, like the previous rural development programs, is not an endogenous program, but largely the brainchild of donor agencies, namely the World Bank, SIDA, and the African Development Bank. PADEP tends to neglect development and extension work in the degraded areas and concentrates its activities on the more promising areas. With the launching of PADEP, the country was divided into surplus-producing and non-surplus-producing *woredas* and *awrajas*. This division resulted in the allocation of a large proportion of extension agents and inputs to the surplus-producing areas. In fact, most of the extension agents, who had previously worked in non-surplus *woredas,* were transferred to the surplus-producing *woredas.* A study made in Wello, a drought-prone region, describes this condition as follows:

> Ironically, the extension agents concentrated in the surplus producing woredas are snatched from other *woredas* and *awrajas* where there is an urgent need to arrest land degradation...Need-

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less to say, some extension agents candidly admitted having little work to do in these lowland *woredas* which have no serious degradation problems.[69]

The history of agricultural development policy of Ethiopia shows that it did not evolve in response to internal needs, but resulted from external pressures or ideologies to which the country subscribed. Most of these programs were not well-thought-out, need-oriented programs. Even though they were expected to improve rural life by raising agricultural productivity and rural income, they lacked proper strategy, ignored important socio-economic parameters that impinge on their success and performance, and ended up benefiting non-target populations. The programs had, thus, little or no impact on the welfare of poor peasants and failed to achieve the objective of eradicating rural poverty. Because they were introduced without proper assessment of their relevance and effects on peasants, they failed to solve the problems of depressed areas where the occurrence and intensity of degradation and famine was increasing. Most of them were overambitious and they were not tailored to the needs and competence of the target population. The speed with which they were introduced and withdrawn clearly reflects their irrelevance.

Concluding Remarks

The root causes of land degradation in Ethiopia reside in the power structures that created particular forms of agrarian relations, land control, and exploitation. Continuous impoverishment has resulted in rural stagnation and land degradation. Recent attempts at increasing large-scale farms has further aggravated the situation.

The various rural development programs that were introduced at one time or another were socially inappropriate and did little to free the peasantry from their depressed conditions. The diffusion of new inputs in the absence of any legislation to regulate tenant-landlord relations resulted in eviction of large numbers of tenants. Many tenants found themselves in chronic poverty; poor people are apt to overexploit land, since they are desperate to meet subsistence needs. Moreover, poor people lack the resources to invest in soil conservation works or adopt productivity-improving innovations to ensure sustained production.

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There is much to learn from past mistakes. First, the socio-economic compatibility of rural development programs must be ascertained and/or the instruments and methods of policymaking must be tuned to the needs of deprived rural people. Unless the political economic conditions are restructured, any rural development project is bound to be skewed. Second, programs that aim at reversing land degradation must also be welfare-oriented; i.e., their primary goal must be to increase the welfare of rural people, and not to restore nature at the expense of people. Third, the rehabilitation of degraded land cannot be realized without diversifying the rural economy. Without off-farm sources of income, peasants will continue to overexploit land. Fourth, peasants must be permitted to participate in the design and preparation of rural development programs; peasants have a wealth of knowledge about their problems, needs, environment, etc., that must inform planners. Moreover, peasants show greater readiness to accept, and participate in, development programs that directly address their needs.

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