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LAND TENURE, LAND-USE, AND DEVELOPMENT IN THE AWASH VALLEY--ETHIOPIA*

by

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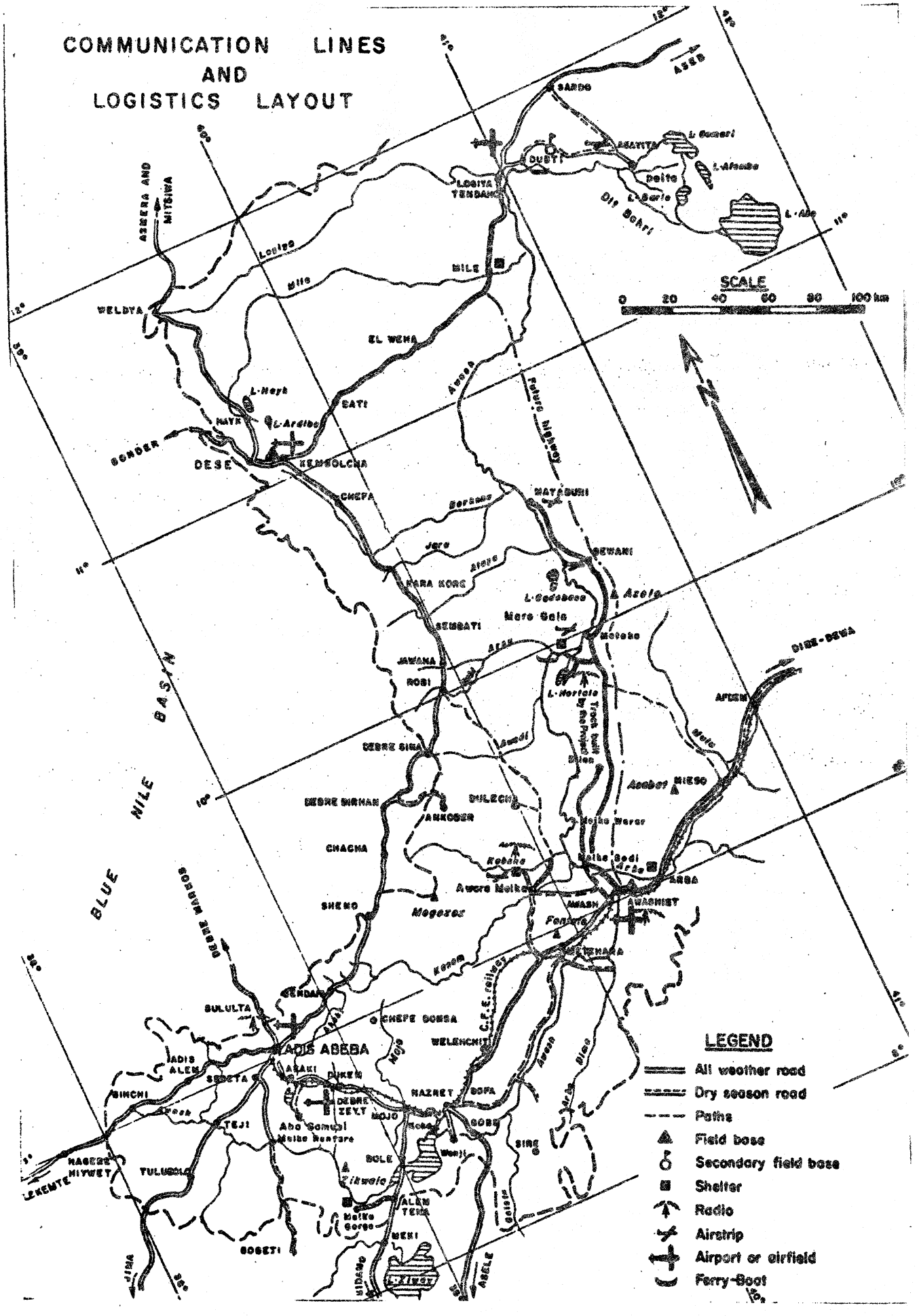
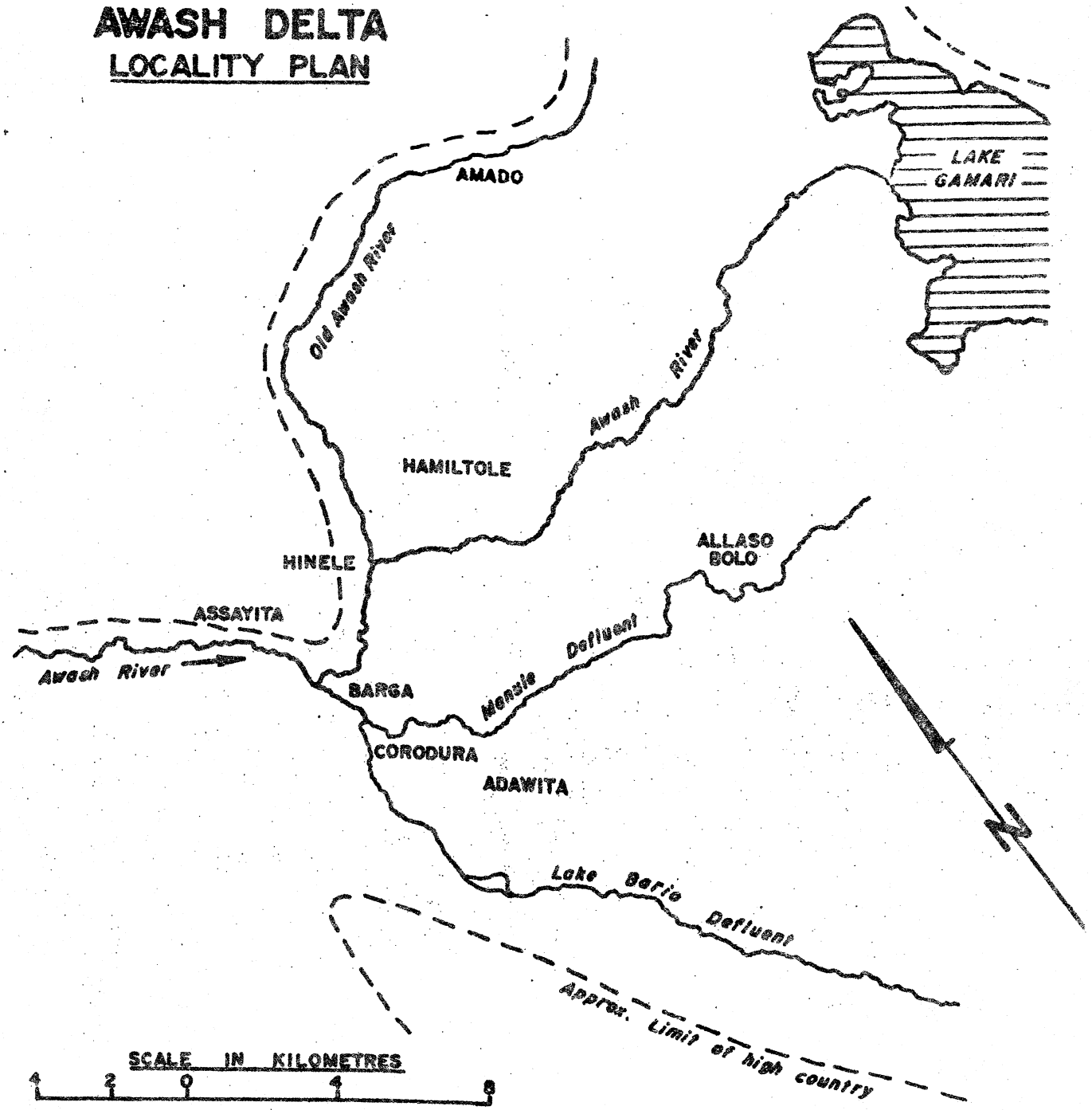
All views, interpretations, recommendations, and conclusions expressed in this paper are those of the author and not necessarily those of the supporting or cooperating agencies.

CONTENTS

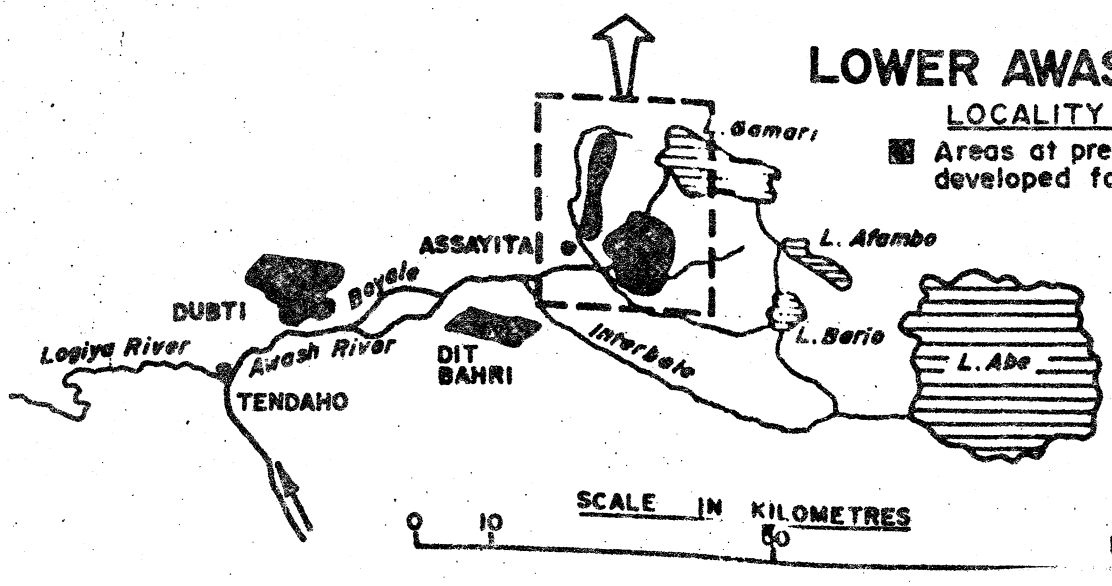

COMMUNICATION LINES
AND
LOGISTICS LAYOUT
SCALE
0 20 40 60 80 100 km
LEGEND
All weather road
Dry season road
Paths
Field base
Secondary field base
Shelter
Radio
Airstrip
Airport or airfield
Ferry-Boat
ADDIS ABEBA
DESE
BLUE NILE BASIN
SARDO
DUBTI
LOGITA TENDAHO
MILE
WELDYA
EL WEHA
KEMISOLCHA
CHEFA
MATABURI
SEWANI
SEMBATI
JAWANA
ROBI
DEBRE SINA
DEBRE MIRHAN
ANKOBER
DULECHA
CHAGNA
SHENO
Awore Meike
AWASH
ASBA
AFDEM
DIRE-DEWA
BULULTA
CHEFE DONSA
WELENCHITI
DEBRE ZEYT
NAZRET
BOFA
GOBE
BOLE
ALEM TENA
MEKI
SODETI
TULUGULU
NAGEDE HIYWET
LEKEMTE
SINGI
ABELE
Mojo
Awash
Fentale
Mieso
Metahara
Sebeta
Teji
Sibeta
Kesem
Sidamo
Lake Awasa
L. Abaya
L. Shala
L. Ziway
L. Langano
L. Beseka
L. Koka
L. Abijatta
Dire Bahri
Future highway
C.F.E. railway
Track Built by the Project
Main Ethiopian Rift Valley

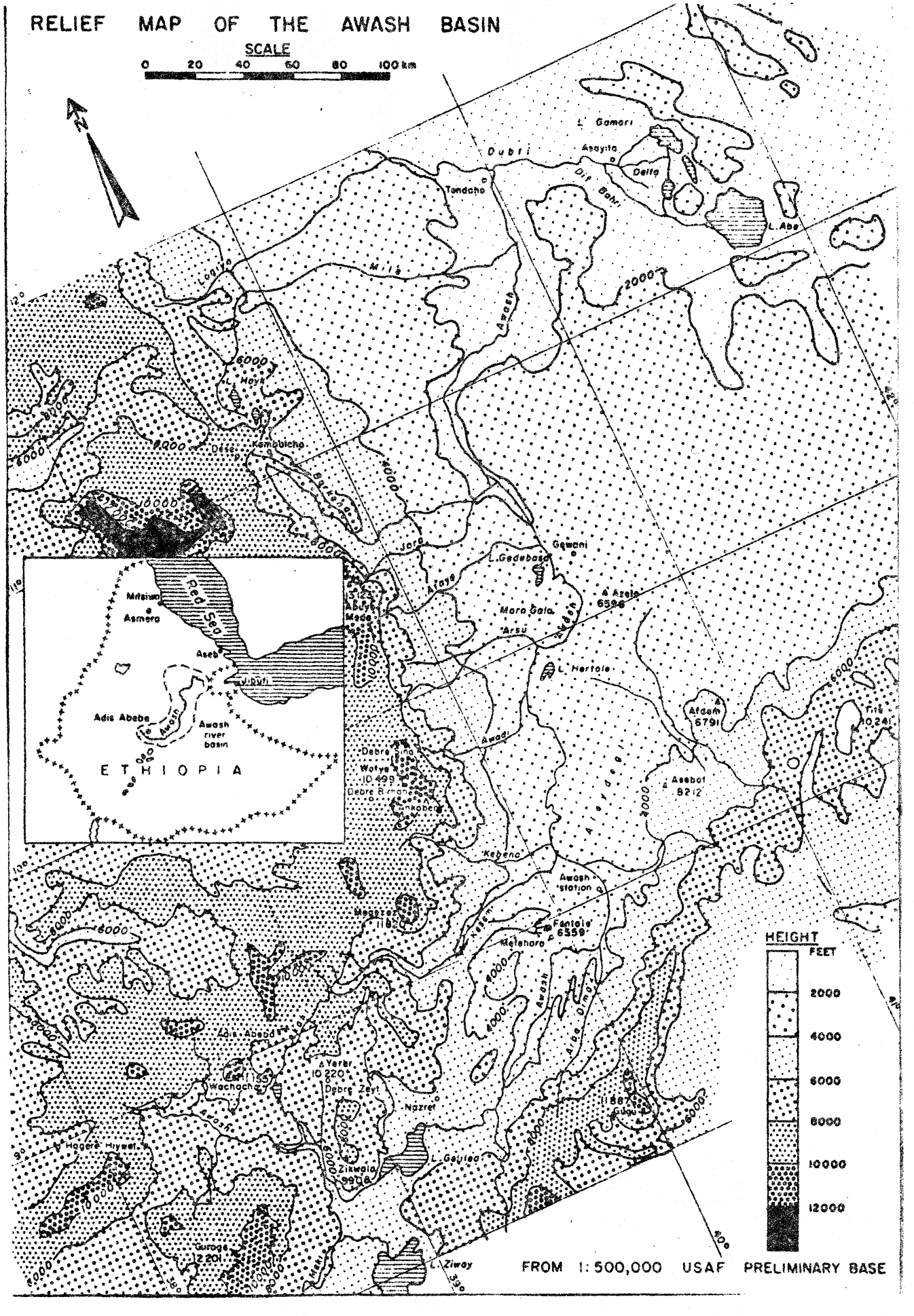
AWASH DELTA
LOCALITY PLAN

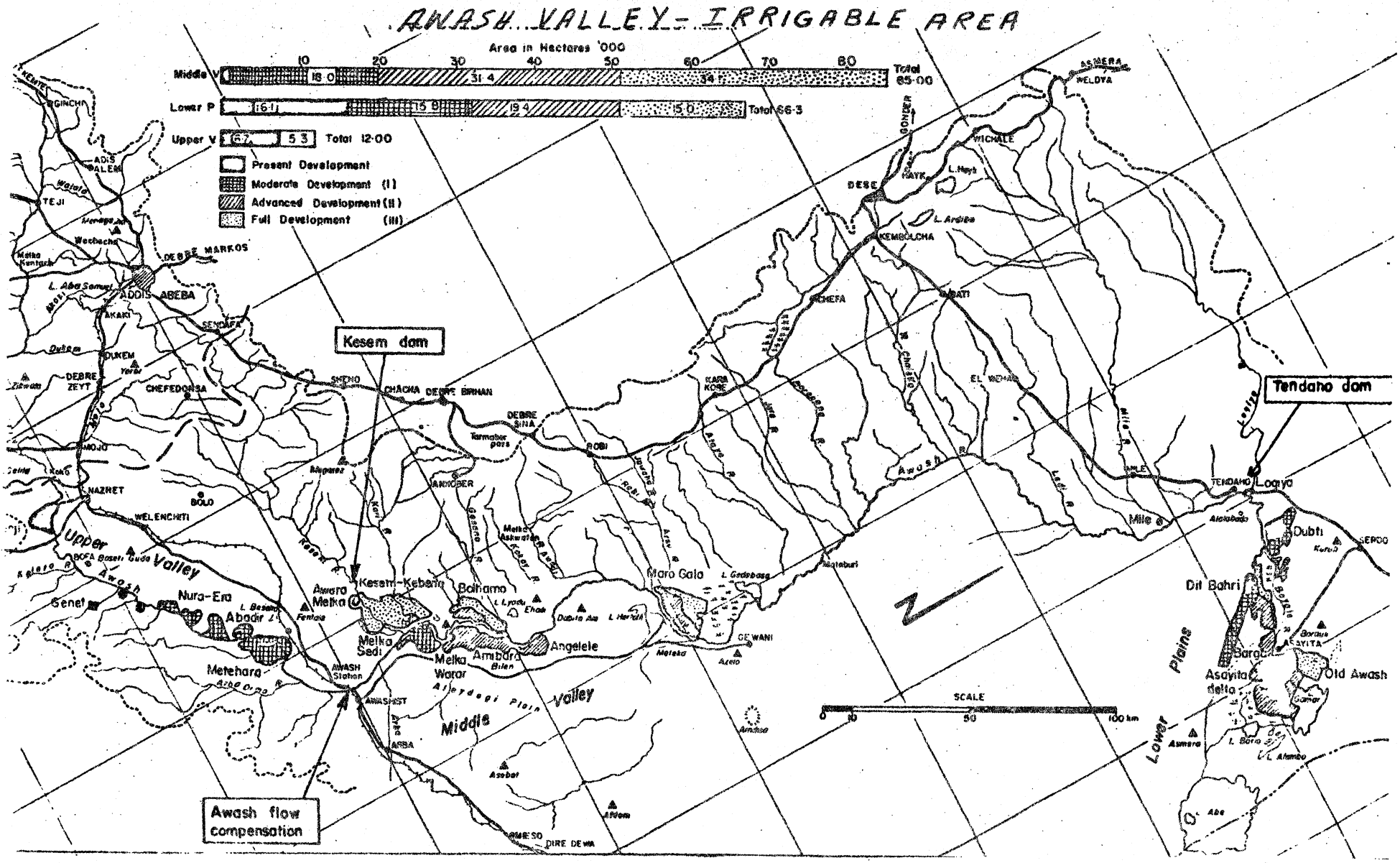


LOWER AWASH VALLEY
LOCALITY PLAN

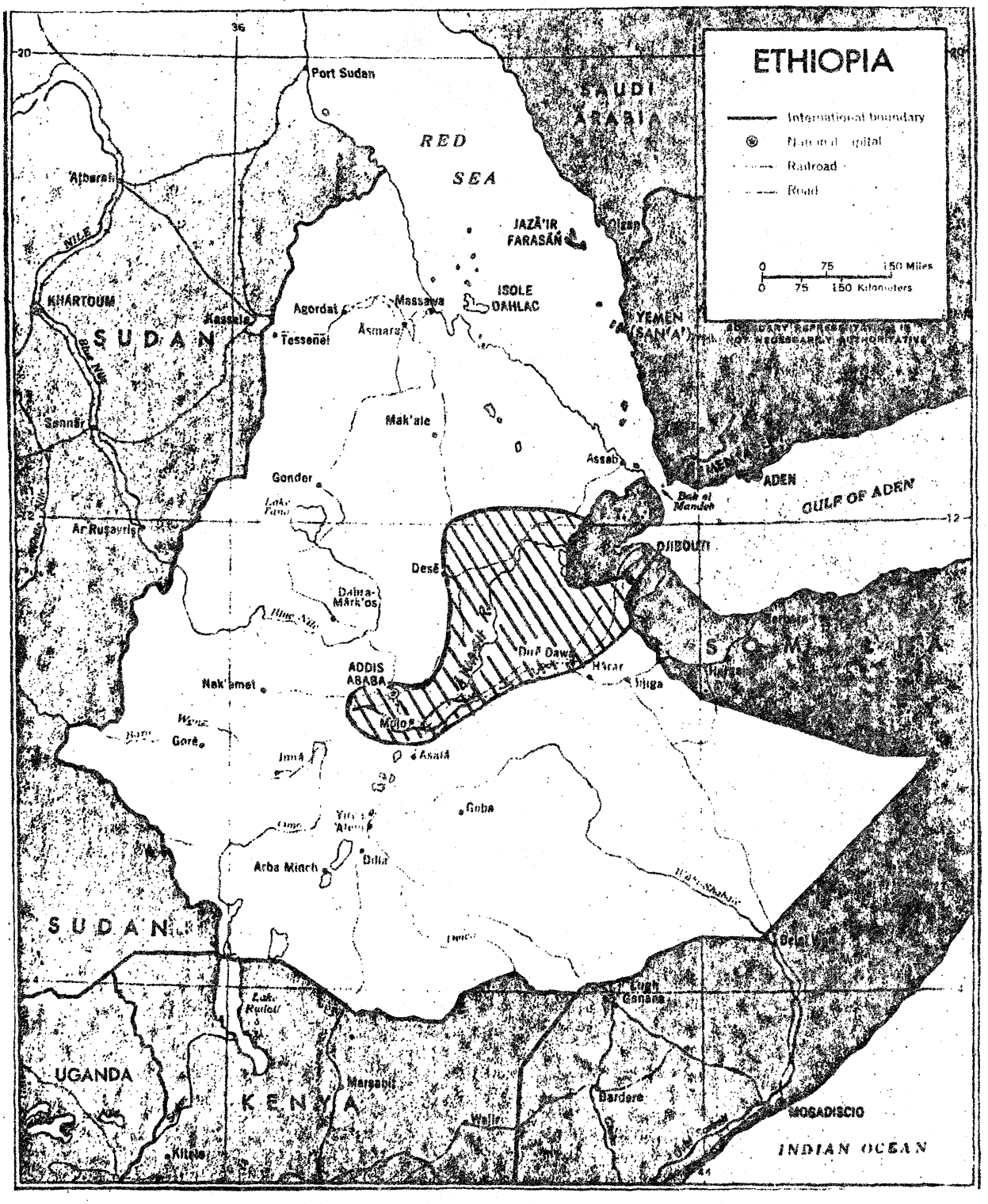
■ Areas at present intensively developed for irrigation.




RELIEF MAP OF THE AWASH BASIN
SCALE
0 20 40 60 80 100 km
N
L. Gamari
Asayita
Dubti
Delta
Dif Bahi
Tendaho
L. Abe
Mille
Logiya
Awash
Hayk
Kombolcha
Dese
Jara
L. Gedebasa
Gewani
Mt. Fantale 6558
Arsu
Mara Gala
Awash
Hertale
Afdem 6791
Tiltal 10241
Awadi
Asebot 8212
Debre Zeyit
Wolya 10 499
Debre Birhan
Mt. Zikoba
Kebenu
Awash station
Fantale 6558
Metahara
Awash
Awash
Nazret
Mt. Yerer 10 220
Debre Zeyt
Wachacha
Addis Abeba
Mt. Hagere Hiywet
Ziwaia
Mt. Gugu 11 887
L. Galilee
L. Ziway
Surage 12 201
Mt. Abuye Mede 13 125
Mitsiwa
Asmera
Aseb
Red Sea
Addis Abebe
Awash
Awash river basin
ETHIOPIA
HEIGHT
FEET
2000
4000
6000
8000
10000
12000
FROM 1:500,000 USAF PRELIMINARY BASE


AWASH VALLEY - IRRIGABLE AREA
Area in Hectares '000
10 20 30 40 50 60 70 80
Middle V
18·0
31·4
34
Total 85·00
Lower P
16·1
5·8
19·4
5·0
Total 66·3
Upper V
6·2
5·3
Total 12·00
Present Development
Moderate Development (I)
Advanced Development (II)
Full Development (III)
Kesem dam
Awash flow compensation
Tendaho dam
Upper Valley
Middle Valley
Lower Valley
Plains
Delta
SCALE
0 50 100 km
ADDIS ABEBA
DEBRE MARKOS
DEBRE ZEYT
MOJO
NAZRET
WELENCHITI
BOLO
CHEFEDONSA
SENDAFA
AKAKI
DUKEM
SHEWA
CHACHA
DEBRE BIRHAN
DEBRE SINA
ANKOBER
ROBI
KEMBOLCHA
DESE
MICHALE
ASHERA
WELDYA
KOMBOLCHA
SHEFA
KARA KORE
EL WEHAB
TENDAHO
Logiya
Mile
Dubti
SERDO
Dil Bahri
Asayita
Old Awash
Gamar
Aysaita
Awara Melka
Kesem-Kebena
Melka Sedi
Melka Warar
Ambdra
Angelele
Baihama
Maro Gala
GEWANI
Nura-Era
Genet
Abadir
Metehara
AWASH Station
ARBA
Asebot
Awash
Mile
Logiya
Borsa
Ahmbo
Abe
DIRE DEWA
ADAMA

AWASH RIVER VALLEY: LOCATION



INTRODUCTION

The Awash Valley is situated between 8°-12° lat. and 38°-41°45' long. With the advent and advancement of development in the valley, problems which require urgent attention and solution have come to the fore. The problems that are of immediate concern to me relate to questions of land rights and land-use. Traditionally, parts of the valley which are now considered suitable for irrigated agriculture were used by nomadic pastoralists for livestock grazing. With the introduction of irrigation in parts of the valley, pastoralists have been alienated from their dry-season grazing areas and from access to the waters of the Awash River. In the lower portion of the valley, where there has been a tradition of cultivation of floodplains by settled subsistence farmers and part-farmer cattle raisers, tribal chiefs have started large-scale farming by leasing land to outside contractors and small farmers from the highlands. The Awash Valley Authority, which was set up in 1961 to coordinate and administer the development of natural resources of the valley, has been granting land to concessionaires on the presumption that grazing land belongs to the Government. This presumption is now being questioned and representatives of some tribes have submitted petitions to the Government asking recognition for their right of ownership in land and for the application of the existing land grant and ownership legislation in their respective areas. The Government has also been receiving applications from highland farmers for grants of individual ownership in the valley. Claimants and land speculators who do not normally reside in the valley have also come onto the scene, challenging both the government's rights of ownership of grazing lands and the usufructuary rights of the nomadic population. The establishment of national parks and wildlife reserves in the valley has further complicated the situation and has led to conflicts of interest between different governmental agencies as well as between traditional users and these agencies.

In an attempt to find solutions to the above and other related problems, the Government set up a Ministerial Committee in May 1973 to make a comprehensive study and submit proposals to the Prime Minister. After a series of meetings the Committee delegated the Minister of Land Reform and Administration to make investigations on problems concerning land-use and land rights. A sub-committee composed of representatives from the Awash Valley Authority, the Ministry of Interior, and the Ministry of Land Reform was set up to make a study and to prepare a report within a period of three to four weeks. I had the opportunity to participate in the work of the sub-committee, and it is as a result of this participation that I became interested in pursuing the investigation further with the hope of making some tangible proposals which may support or complement, or provide alternatives to, the proposals submitted by the sub-committee.

The short-term study program that has been initiated by the Ministry of Land Reform to allow Ministry officials to study and do some research in the Land Tenure Center of the University of Wisconsin has made it possible for me to devote more time to the investigation of the problem and to look into similar situations in other countries in order to formulate guidelines which may lead to finding a realistic solution to the problem of land tenure and land-use in the Awash Valley.

In this study an attempt will be made to focus attention on such questions as: what would be the most appropriate forms of tenure to be adapted? what legal measures should be introduced in order to facilitate the rational and integrated development of the Valley? what are the organizational and institutional measures that will be required to enhance development administration in the Valley? Answers to such questions will not be readily available without an examination of the existing situation in the Valley in particular and in the country as a whole. I shall therefore attempt to indicate: a) the role of agriculture in Ethiopia and the development strategy adopted for the Fourth Five-Year Development Plan (1974/75-1978/79); b) the human and physical resources of the Valley; c) existing and planned development projects in the Awash Valley; d) problems and conflicts of ownership, land-use, and development in the Valley. Having examined the existing situation as it relates to the national policy of agricultural development, resources, and development projects, as well as the actual and potential problems encountered in the development of the Valley, an attempt will be made to examine alternative possibilities and to make proposals for policy guidelines. The proposals will be particularly directed to: a) the forms of tenure to be adopted; b) land-use zoning measures; c) legislative measures; d) organizational and institutional questions.

I. THE ROLE OF AGRICULTURE IN ETHIOPIA AND DEVELOPMENT STRATEGY FOR THE FOURTH FIVE-YEAR PLAN

Ethiopia is a country of small farmers. Agriculture contributes about 56 percent of GDP and provides sustenance for over 80 percent of the population of 25 million. It provides nearly all the export commodities, with coffee alone accounting for well over 50 percent. In the past, growth in agricultural production has been very slow, especially in the noncommercial sector, and has barely kept pace with population, which is estimated to be increasing at the rate of 2.2-2.5 percent per annum. The rate of increase in agricultural production in the past decade is estimated at 2.2 percent per annum.[1] Tuus, despite the dominant role of agriculture in Ethiopia's economy as both employer of a large farm population and supplier of commodities it has not been possible to make significant improvements in production and in rural living levels. The reasons for lack of improvement are many; they lie mainly in the "traditional attitudes and institutions," the "structure of traditional agriculture," the "lack of physical infrastructure," and "land tenure and human settlement problems," etc. Continued soil exhaustion, erosion, and periodic droughts occurring in parts of the country have also tended to aggravate the situation. Still, an assessment of the country's resources and conditions reveals that "there are fertile lands, favorable climates, and most important, the apparent receptivity

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1. "Strategy Outline for the Fourth Five Year Plan (1967-71[1974/75, 1978/79])," Planning Commission Office, April 1973, Addis Ababa, p. II.3.

of the large farm population to revolutionary innovations in production and marketing methods."[2] And it is believed that if this is "reinforced by effective government performance, rapid progress can be made to raise living levels throughout the nation."[3]

The Agricultural Development Strategy set out in the "Strategy Outline of the Fourth Five Year Plan" is an attempt towards a reinforcement of government performance. Greater emphasis is placed on more rapid job creation, income distribution, and an increase in small farmer production. The strategy aims at "improvement of agriculture in already settled areas," land development and settlement in new areas, and organizational and institutional improvements.

Improvement of agriculture in already settled areas is planned to be effected by: (1) channeling more resources into development of rural areas and spreading improved agricultural technology (mainly biological) through the Minimum Package Programme; (2) initiating a labor-intensive public works program to improve the physical structure (rural roads, water management) and to increase off-season employment opportunities; (3) introducing a restructured pattern of educational development directed to the needs of people in rural areas (mass education, rural vocational training, extension, etc.); (4) introducing new export-oriented activities (crops, livestock, crafts, etc.); and (5) improving the distribution of public health services.

Land development and settlement in new areas are considered as major vehicles for advancing the two-pronged strategy of "accelerated growth and more rapid job creation." In the plan period, the agricultural labor force is expected to grow by about 240,000 persons per annum (2.2-2.5 percent per annum) and of these only 20,000 to 30,000 will be accommodated in the Minimum Package Programme. Low-cost settlement on unutilized or underutilized land is expected to provide employment for about 60,000 settlers. Employment creation and "ensuring sound long term use of the nation's reserves of arable land" are indicated as the guiding principles in opening up new areas for settlement. On account of greater demands on resources, irrigation agriculture is proposed for areas where possibilities for "creation of employment and improvement of less well-endowed areas" are identified. Large-scale irrigation projects will be undertaken in "selected areas on basis of strict economic criteria" and "should be implemented in such a manner as to provide satisfactory alternative livelihood for all past users of the land."[4]

Policy guidelines relating to organizational and institutional improvements are many and varied. Only those concerning land tenure and integrated rural development will be mentioned here. Land tenure is stated clearly and emphatically in the strategy outline in the following terms: "there

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2. "Agricultural Sector Survey Ethiopia," IBRD, Report no. PA-1430, Jan. 15, 1973, Vol. I, p. 2.

3. Ibid.

4. "Strategy Outline," p. III.6.

is no policy area where accelerated agricultural development and employment creation is more dependent upon institutional change than in land tenure and administration."[5] The policy requirements of the Fourth Plan include the following: "Implementation of the government's land tenure and land use programmes is essential not only because of their direct effects on income distribution but also to ensure that the nation's arable lands are more efficiently utilized, as well as to provide farmers with adequate financial incentives to increase their levels of output."[6]

In order "to promote local initiative within the general framework of national plans" proposals are made to promote "integrated rural development within the framework of Awraja [district] self-administration." The proposals are aimed at introducing "important elements of horizontal organization" which include the creation of an "Awraja Executive Committee for Development" composed of technical officers appointed by development ministries and headed by the Awraja administrator. The administrator will report to an "Awraja Council." A similar structure is also to be created at Woreda [sub-district] level. At the central government level a "Board of Coordination" will be created to facilitate inter-ministerial consultation. The reform program, which is designed to promote horizontal organization and local participation in planning and implementing integrated development programs, "would be implemented on a phased basis until the whole empire is covered in about four or five years."[7]

It is with the assumption that the national strategy for agricultural development would have significant bearing on development in the Awash Valley that the above brief explanation has been given. We now turn to our subject of investigation. First, an attempt will be made to describe the situation as it relates to total irrigable land and to development in the Awash Valley.

II. ETHIOPIA'S IRRIGABLE LAND AND THE AWASH VALLEY

Within the eleven major drainage systems of Ethiopia a gross area of 3.5 million hectares are estimated to be suitable for irrigation agriculture.[8] But because of possibilities for dry farming, grazing land requirements of the pastoral population, scarcity of water, etc., the actual area

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5. Ibid., p. III.4.

6. Ibid., p. II.7.

7. Ibid., p. III.2.

8. P.C.O. "Irrigated Lands of Ethiopia," Typescript, March 9, 1972. The 11 major river basins and the estimated gross irrigable areas are: 1. Abay (Blue Nile), 0.43 million ha.; 2. Wabi Shebele, 0.30 million ha.; 3. Baro-Akobo, 0.60 million ha.; 4. Tekeze, 0.50 million ha.; (cont.)

available for irrigation is probably not more than 1.5 million hectares.[9] These are only estimates, since river basin studies have been carried out in only three drainage systems, the Abay (Blue Nile), Wabi Shebele, and Awash River basins.

The first survey was conducted in the Abay River basin between 1957 and 1961, but up to now no irrigation development has been launched in this valley. The next survey was carried out in the Awash River basin between 1961 and 1964. Mainly because of its proximity to the capital city and the two major ports of Ethiopia--Aseb and Djibuti (in Afar-Issa)--and the existence of rail and road transport in the upper and middle parts of the valley, development in this basin had preceded feasibility studies. The first large-scale irrigated cultivation began with the development of the Wonji sugar estate in the early 1950s. In 1960 construction on the Koka H.E.P. dam was completed and a large reservoir (Gelila Lake) was created enabling the flow of Awash River to be regulated. Other small irrigation estates were also in operation in the middle part of the valley even before the construction of the Koka reservoir.[10] One other reason which prompted studies and development of irrigation agriculture in the Awash Valley is the absence of international water right claims. The Awash River is the only major Ethiopian river which begins and ends within the confines of the national territory.

A. Awash Valley: Physical and Human Resources

1. Land and Water Resources of the Valley: The total area of the Awash basin is estimated at 120,000 km^2 but the valley which is effectively drained by the Awash River and its tributaries is about 70,000 km^2. On the basis of the feasibility study carried out between 1961 and 1964 the following categories of land-use have been identified: (see Table 1)

Table 1. Land-Use

Land-Use	Area km^2	Percent (%)
1. Agricultural Land	20,300	29.0
(i) Dry farming	(18,550)	(26.5)
(ii) Irrigable	(1,750)	(2.5)
2. Grazing and Woodland	41,050	58.6
(i) Short grass savanna	(2,450)	(3.5)

5. Barka, 0.30 million ha.; 6. Omo, 0.20 million ha.; 7. Genale Dawa, 0.34 million ha.; 8. Rift Valley Lakes, 0.15 million ha.; 9. Mereb Gash, 0.30 million ha.; 10. Awash, 0.30 million ha.; and 11. Red Sea Coast and other, 0.12 million ha.

9. H. Welterhall, "Government Land in Ethiopia," Mimeo., MLRA, December 1973.

10. Awara Melka, on the Kesem River, and Metahara.

(Table 1. Land-Use cont.)

Land-Use	Area	Percent
(ii) Woodland and bush	(18,700)	(26.7)
(iii) Tree and shrub steppe	(19,900)	(28.7)
3. Other (marshes, lakes, wasteland)	8,650	12.4
TOTAL	70,000	100.0

Source: "Survey of the Awash Valley," UNDP/FAO, 1965, Vol. II, p. 34, table 1. Original table indicates land actually irrigated at the time. Here the potential irrigable is included. Dense forests are identified on mountains and river banks and included in woodland and bush.

From the table it should be observed that the irrigable land accounts for only 2.5 percent of the total. While 58.6 percent of the area could be used for grazing, the best pastoral areas coincide largely with the short grass savanna. Short grass savanna situated in proximity to water bodies also provides better sites for irrigated agriculture. Hence, a competition between the two forms of land-use becomes unavoidable in the development of the valley.

With the increase in population in the densely settled higher parts of the valley, a continuous expansion of dry farming has taken place in the last ten years. The area indicated in the table for dry farming would therefore be much higher now than it was ten years ago. And as the expansion has been toward the "grazing and woodland zone," the amount of land in this category would also show a proportionate decline. The squeeze on the grazing and woodland zone has been proceeding along two fronts, i.e., expansion of dry farming from the plateaux to the lowlands and the expansion of irrigated agriculture along river banks.

The water resources of the valley have not been fully assessed, especially the ground water supplies.[11] The prefeasibility surveys on flows, rainfall, and dam sites carried out in the first half of the 1960s have indicated that surface water supplies of the main stream and its fourteen major tributaries would make possible irrigation of 175,000 has. The full realization of this potential would, however, require construction of additional dams in the Middle (Kesem) and Lower (Tendaho) valleys. The existing reservoir (Koka) is considered to be sufficient to irrigate only 72,000 has. A diversion of the Meki River (which now flows to Lake Ziway in the Middle Rift Valley) into the Koka reservoir has been proposed to increase water supply.

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11. I.E.G. Awash Valley Authority, "Awash Valley Development, 1967-1971," August 1971, Addis Ababa. For details on water resources refer to "Report on Awash Valley" in FAO/UNDP General Report, 1965.

2. Livestock Population: Information on the livestock population of the whole valley is not readily available. Estimates made by experts on the Awash Valley for the Middle and Lower valleys have indicated that the total population may range between 250,000 and 304,000.[12] The total livestock population is divided as follows:

	Cattle	Sheep and Goats	Camels	
Middle Valley	10-13,000	30- 40,000	1,000	50- 54,000
Lower Valley	50-60,000	150-180,000	10,000	210-250,000
Total	60-73,000	180-220,000	11,000	251-304,000

The livestock population in the Upper Valley would probably not be less than the estimate for the Middle Valley. The sedentary population of the plateaux also raise cattle, sheep, and goats both for domestic use and for sale to nearby urban markets. The total livestock population in the Awash Valley would therefore be much higher than the figures given for parts of the region. Considering the attitude of the nomadic population toward animals and the interest of individuals in keeping large herds, the above estimates appear rather modest. It should be noted here, however, that the droughts of the past few years have seriously affected the livestock population in this part of the country.

3. Inhabitants of the Awash Valley: Estimates made by the Awash Valley Authority by taking house counts in 30 villages in the Upper and Middle Valley and 35 villages in the Lower Valley, and using data collected by the Department of Malaria Eradication Service, put the total number of inhabitants in the Upper, Middle, and Lower valleys at 55,462 people.[13] The breakdown is 8,405 in the Upper Valley, 17,287 in the Middle Valley, and 29,770 in the Lower Valley. The average number of inhabitants per household is estimated at 4.5 persons.[14] Up to now no attempt has been made to make a separate estimate of the population inhabiting the watershed areas of the valley. Since information is not readily available it will not be possible to make an estimate of the total rural population inhabiting the dry farming regions of the valley. In order to get some impression about the magnitude of the peopling of the whole valley, the population of awrajas which fall within the physical limits of the Awash Valley is given in Table 2.

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12. Kassahun Ayele and F. Juhasz, "Report on the Socio-Economic Conditions of Nomadic Pastoralists in the Awash River Basin," Mimeo., October 1970, Appendix 3, p. 4.

13. Ibid., p. 3.

14. Sample surveys carried out by Ministry of Land Reform field party in March 1972, indicated 15 persons per household for the Kereya (Upper Valley), 18 persons per household in Melka Worer, and 25 persons per household in the Gewani. On this basis the estimated population for the three areas is 85,250 persons. Considering the limited nature of the survey and in view of the number of house counts made by the Malaria Eradication Service and the Awash Valley Authority, 15-25 persons per household appears less credible than the 4-5 average given by the latter two agencies.

Table 2. Population by Awraja[a]

G. General	Awraja	Population (No. total)	Area (km^2)	Density ($P./km^2$)
HARER	1. Adal Issa-Garaguracha	260,480	43,887	6
	2. Dire Dawa	150,000	1,162	125
		410,480	45,049	
SHEWA	1. Tegulet na Bulga[b]	308,000	10,043	31
	2. Yerer na Kereju	330,270	18,494	18
	3. Yifelina Timuga	126,860	8,362	15
		765,130	36,899	
WELO	1. Ambasel	265,543	4,906	54
	2. Awsa	79,220	27,075	3
	3. Dese	218,280	875	248
	4. Kalu	130,440	2,025	64
	5. Raya na Kobo	65,118	11,256	6
	6. Yeju	167,531	4,175	40
		926,132	50,312	
	Total	2,101,742	132,260	

[a]Two awrajas, Chercher in Harer and Arbagugu in Arusi, have been omitted since only small parts of these awrajas fall within the valley.

[b]Half of this awraja falls within Abay basin.

Source: Central Statistical Office and Mapping and Geography Institute.

Even though sample surveys were not carried out in the pastoral regions of the eleven awrajas, estimates of nomadic population are included in the figures for many of these awrajas; hence, it will be necessary to adjust some of the figures in Table 2. Also, as only part of the Tegulet and Bulga Awraja falls within Abay basin, only half of the population and the area should be ascribed to the Awash Valley. The remaining total population residing in the "watershed" portions of the valley would amount to about 1.9 million after making these adjustments. These are mostly sedentary small farmers who are struggling to eke out a living from eroded and exhausted hillsides by using antiquated technology. Almost all these awrajas have been affected by recurring droughts in the past. Drought and crop failures have been accentuated in the last four years. The Awash Valley Authority, which has been legally established by the government to administer and develop the resources of the area "comprising the watershed of the Awash Basin," has up to now completely neglected the watershed regions of the valley and concentrated its efforts on studies and development of riperian lands. The relevance and problems of the "watershed" region will be clarified at a later stage and we shall now turn to consider the major tribal groups inhabiting the valley and the structure of the nomadic population.

4. Major Tribal Groups and Structure of Nomadic Population: The major tribal groups inhabiting the Awash Valley are the Amhara, Gala, Woloye, the Afar, and the Issa. The Amhara, the Gala, and the Woloye reside mostly in the highlands and are sedentary agriculturalists. In the transitional

zone at the lower elevation pastoralists belonging to the Gala tribe occupy a narrow belt stretching from the southern part of the Upper Valley all the way to the northern limits of the Lower Valley. The Afar and the Issa occupy the lower and the eastern portions of the valley. While the Afar population mainly occupy the left and right banks of the river Awash, the Issas are found in the more arid parts of the valley to the east. There are of course a number of sub-groups within these major groups.

The Afar, situated as they are in proximity to the flood plains in the Middle and the Lower Valleys, form the groups most seriously affected by the advent of irrigated agriculture--both negatively and positively--as will be clarified in the subsequent sections of the paper. Here the structure of the Afar society and the traditional attitude to land "ownership" will be described briefly.

The Afar population is divided into two major classes known as Asaimehara (the red) and Adoimehara (the white).[15] Although the Asaimehara are considered the "noble" class and the Adoimehara the "commoners," continued intermarriage through the years seems to have obscured genealogical and physical distinctions between these two classes. The major groups are the "tribes" which form "confederations of linked groups" headed by "Makabans" or tribal leaders. Clans known as "kidhas" are "composite kinship groups" in which family units are organized. The head of the clan, or the "Kidha," is known as "Khidu Aba," i.e., the father of the people. The function of the "Makabans" and the "Khidu Aba" is limited to settlement of disputes and arbitration on the respective levels.[16] A serious dispute may occasionally be referred to the Sultan of Awsa at Assayita, who may send one of his deputies, delegating him to arbitrate on his behalf. Well-use and livestock raids are identified as main issues leading to serious conflicts. Traditionally, tribal boundaries were casually regarded, and restrictions on use were not imposed provided that the user gave recognition to the rights of the tribe residing in the area. Failure to recognize any tribe's "ownership" of a specific area, however, could easily lead to friction between two tribes. While access to grass and grazing areas was allowed freely to any Afar tribal group, well-use tended to be "tribally restrictive." As with most nomadic groups, ownership of land, in its strict sense, was not adhered to by the Afars. The situation in the Awash delta, where a tradition of irrigated agriculture has been practiced for a prolonged period of time, is different. Land tenure in the Awash delta region will be treated in some detail in the section on development in the Lower Valley.

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15. For detailed treatment of the Afar social structure refer to N. J. Cossins, "No Way to Live: A Study of the Afar Clans of the N.E. Rangelands Carried out for the Livestock and Meat Board of Imperial Ethiopian Government" (n.d. [ca. April 1973]).

16. Many of the "Makabans" and "Kidhu Abas" are also government representatives at the local level, in which case they may be recognized as "balabats" and "chikashums" and provide services in keeping order, collecting taxes, transmitting orders, etc. They are paid monthly salaries for such services by the Central Government.

B. Development Projects in the Awash Valley

In this section the situation concerning the existing and planned development programs together with some of the related problems will be discussed. First, we shall examine the objectives and functions of the organization which is responsible for the development of the valley, then we shall deal with on-going projects in the Upper, Middle, and Lower Valleys.

1. The Awash Valley Authority (AVA): The Awash Valley Authority was established by charter January 23, 1962, and was given the exclusive jurisdiction "to administer and develop the natural resources of the Awash Valley."[17] As defined in the charter, the "Awash Valley" is the "area comprising the watershed of the Awash Basin, as geographically defined"; and the "Awash River" is "deemed to include all tributaries thereof and all artificial means of controlling and diverting the flow of water which may be constructed within the Awash Valley."

The functions of the Awash Valley Authority include: (1) conducting surveys of the Awash Valley resources; (2) establishing plans and programs for the use and development of the resources of the valley; (3) co-ordinating activities of all government ministries and public authorities in the use and development of resources; (4) authorizing third parties to contract, acquire, manage, administer, and maintain physical infrastructures; (5) administering all water and water rights; (6) assigning water for irrigation and other purposes, and fixing and collecting fees for the use of such water and other facilities; (7) promoting, organizing, and authorizing establishment of co-operative and other agricultural and industrial enterprises; (8) doing all such things as may be necessary to assure the best use and development of the resources of the Awash Valley.[18] The Authority was also given power to ascertain "land ownership" in the valley and "all state owned land" was to "be transferred to the AVA by the Ministries and Public Authorities presently holding thereto."[19]

Since its establishment in 1962, the AVA has been concerned primarily with granting and administering concessions for irrigation agriculture; conducting surveys, feasibility studies, and project preparations for irrigation agriculture, mainly in the Middle Valley; and running pilot settlement schemes in the Middle and Lower Valleys. A general survey of the land and water resources of the valley was initiated before the establishment of AVA and completed in 1964 and development has proceeded on the basis of the recommendations made in the final report of the survey. Subsequently, a number of surveys and feasibility studies have been conducted by different consulting firms in the Middle and Lower Valleys.[20] The major development projects are summarized below.

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17. I.E.G. Ministry of Pen, Negarit Gazeta, no. 7, Jan. 23, 1962, p. 54.

18. Ibid.

19. UNDP/SF(FAO), Survey of the Awash Valley Authority: General Report, SOGREAH, 1965, Vol. I.

20. Major consultants involved in feasibility studies are: Italconsult; Sir Alexander Gibb & Partners; Sir William Halcrow & Partners; the State Rivers and Water Supply Commission, Victoria, Australia.

2. Development Projects in the Upper Valley: The area recognized by the AVA as the Upper Valley covers the region stretching from Koka dam up to Metahara. In this region, it should be recalled, development had preceeded prefeasibility studies and the establishment of AVA. Aba Samuel dam on the Akaki River, situated 25 kilometers south of Addis Ababa, was constructed in the 1930s to create a reservoir for electric production. Small irrigated fields planted with grapes and vegetables were also started to provide supplies for the Addis Ababa market. The major irrigation project in the region was established in the early part of the 1950s at Wonji plain with the reclamation of the swamp. Here an agro-industrial estate based on sugar cane cultivation and processing was put in operation in 1952. It has subsequently been expanded to cover a total area of about 7,000 has., providing sugar cane for the two processing plants at Wonji and Shoa estates. Construction of the Koka dam and the hydroelectric plant was completed in 1960 and a reservoir with a capacity of 1,800 million cubic meters (hm^3) was created providing a means to regulate the flow of the Awash River. Later, two hydroelectric power plants were constructed downstream drawing their water requirements from the Koka reservoir. The total capacity of these plants is 360 million kwh. per year.

The major irrigation projects in the Upper Valley are four in number and cover a total area of 26,600 hectares. (See Table 3.) Wonji and Shoa plantations, which occupy the largest cultivated area are based on a single crop--sugar cane--and provide employment for about 10,000 workers. Nura Era plantation has developed less than half of its holdings and the major crop cultivated here is cotton, covering more than half of the irrigated area. Citrus fruits, vegetables, haricot beans, and maize are also cultivated. Tibila and other farms cultivate citrus fruits, bananas, grapes, and vegetables using irrigation, as well as cereals such as sorghum, maize, and teff in dry farming. Information on the number of employees in these farms is not readily available but would probably not exceed 1,000 persons.

Table 3. Irrigation: Upper Valley

	Area Irrigated (in has.)	Total Area Irrigable (in has.)
Wonji and Shoa	7,000	7,000
Tibila	800	12,000
Nura Era	2,600	6,000
Other	800	1,600
Total	11,200	26,600

Source: Awash Valley Authority.

The Upper Valley falls in the individual "ownership region" and extensive areas have been cleared for dry farming by small, medium, and large farmers in the past ten years. As a result of expansion of agriculture in these areas pastoralists have been seriously affected. Traditional users of grazing lands now covered by Koka reservoir and sugar cane have not been adequately compensated for the loss of the land and claims for compensation still remain unsettled.

3. Development Projects in the Middle Valley: The Middle Valley covers the area between Metahara and Tendaho. It is a semi-arid region with an average annual rainfall of about 400 mm. Although two small plantations at Metahara and Awara Melka were in existence before the establishment of AVA, most of the development in this region has taken place in the last ten years and has been promoted by AVA.

The major irrigated farms in the Middle Valley in 1971 are shown in Table 4. The total irrigated area in the Middle Valley was only 12 percent of the total irrigable potential. Additional concessions have been granted since then and there has been expansion in some of the existing concessions at Metahara, Melka Sedi-Amibara, and Awara Melka.[21]

Table 4. Irrigation: Middle Valley

	Area Irrigated (in has.)	Total Area Irrigable (in has.)
1. Abadir	2,800	4,000
2. Metahara	4,000	10,000
3. Melka Sedi-Amibara	2,100	14,000
4. Awara Melka, Kesem, Kebena	960	18,000
5. Angelele	--	5,000
6. Bolhama	--	9,000
7. Maro Gala	--	23,000
Total	9,860	83,000

Source: Awash Valley Authority.

In the Middle Valley the AVA operates a demonstration farm of 600 has. and a pilot settlement project was set up in 1967 with 72 settlers. Of the 72 original settlers, 67 have been cultivating a total area of 180 has. A project to expand irrigation to cover 10,000 has. has been approved by the government and IDA loans have been secured for the construction of the necessary physical infrastructure. Out of the total, 2,000 has. are earmarked for the settlement of nomads. It is proposed to settle 500 families in the next five years (1974-1979). AVA's draft proposals for settlement also project settlement of 300 families in Bolahamo, where 1,500 has. are set aside for this purpose.[22]

Land development and irrigation settlement involve "sophisticated infrastructure, management, capital works, equipment and social development works," thus making the program much more expensive than settlement in dry

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21. Berhane Selassi Dori and Mohammed Ali in their "General Information on the Development of Awash Valley (An Explanatory Note)," Mimeo., Addis Ababa, November 1972, p. 6, indicate that area planted in the whole valley increased by 17.7 percent in one year (1970/71 to 1971/72).

22. AVA, "Program of Irrigation Settlements for Nomads," Mimeo., n.d.

farming areas. Cost of settlement in an area of 2.5 ha./family has been estimated to range from $Eth. 5,000 to $Eth. 15,000.[23] In order to finance settlements and make them self-sustaining, it is proposed to establish AVA-operated "training farms" which will be instrumental in generating funds from the sale of farm products. On this basis work has started on Amibara settlement No. 1 involving "210 settlers in 525 has. with a 525 has. training farm."[24]

It has been the policy of the government to provide adequate compensation to the population seriously affected by the alienation of grazing land for irrigation agriculture. Livestock development is also considered vital for the development of the national economy. To supplement the trials on settlement the AVA has initiated work on the irrigation of fodder crops, and improvement of dry season grazing based on ground water supplies.[25] In 1971 an irrigated pasture pilot farm was established on 17 has. to experiment with fodder crops.

To the east of the Amibara experimental area is the Allidegi plain, with a total area of 195,000 has. and a potential grazeable area of 157,000 has. After making a series of test borings it has been possible to identify adequate reserves of ground water. If sufficient watering points are provided, the Allidegi plain could be an excellent site for livestock ranching. And plans are underway to develop the plain for use by traditional pastoralists under the supervision of the AVA. The realization of this program could face certain tenurial difficulties in that claimants of ownership who reside outside the region have filed requests for compensation.

Before moving to the Lower Valley we should briefly mention the question of wildlife reservations. In the Middle Valley, the Awash National Park has been established--legally and physically--on an area of 80,000 has. between Metahara and Awash Station. The park encloses a sizable area of dry-season and wet-season grazing which in the past was used primarily by Kereyu pastoralists. Although the right of compensation is recognized, the pastoralists have not received any compensation and serious confrontations and even conflicts have at times occurred between the pastoralists and the people in charge of the National Park. Until adequate compensation is given to the pastoralists, the conflicts are bound to be sustained and even intensified.

To summarize, in the Middle Awash Valley farming was introduced and expanded in the last five to ten years and the concern for development has

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23. A. G. Goudie, "Irrigated Land Settlement," UND/SF/ETH.25, Informal Technical Report no. 7, June 1972.

24. Ibid., p. 2. The justification given for the "training farm" methods is based partly on the profits gained in 1972 from 250 has. which showed "Eth$200,000 in excess of the funds necessary to develop and equip the farm."

25. G. E. Lines, "Livestock Development Programme," UNDP/SF/ETH.25, Informal Technical Report no. 10, May 1972.

been focused on commercial concession agriculture. With the expansion of irrigation the dry-season grazing areas of pastoralists have been alienated. Land was, and to a certain extent still is, considered as something inexhaustible. But with the increasing realization of the possibilities of agricultural development the nomadic population has also become more concerned with their rights to land. Such a concern is also tied up with their actual need for grazing land. At the outset the AVA did not seriously consider the possibilities of expanded settlement and livestock development. Partly because of the increasing demands of the pastoral population the AVA has now initiated a number of programs, including improved livestock management.

4. Development Projects in the Lower Valley: The Lower Valley comprises the area between Tendaho and Lake Abbe. The region is arid, with an annual average rainfall of 200 mm. in Tendaho, decreasing to less than 150 mm. in the Awash delta. The Awash delta, or the Awsa proper which has its center in Asayita, is the "heartland" of the Afars. Awsa is described by Cossins as "long established as an almost mythical oasis, the Awash River Delta was a startling exception of green pasture surety to the stark aridity and impermanent water of the rest of Dankali. A distributary phenomena, this lava framed inland Delta, was created by the elevated and capricious overflowings of the last grotesque meanders of the Awash River as it is lost in a series of swamp fringed lakes."[26] A sedentary population, based on irrigated cultivation and livestock raising, is suspected to have been in existence in this region for at least four and a half centuries.[27] It is, however, in the last ten years that the old "Aussa Sultanete" has been seriously affected by modern agriculture. The introduction of cotton cultivation in the Awash delta has ushered in substantial changes in the economy and the attitude of the Afar population. The change, as we shall attempt to show later on, has resulted in substantial economic rewards to some and serious troubles to those who are still pursuing the nomadic way of life on the fringe of the cotton development.

Table 5. Irrigation: Lower Valley

Irrigation Agriculture	Area Irrigated (in has.)	Total Area Irrigable (in has.)
1. Logiya	140	140
2. Dubti	6,500	9,050
3. Ditbahri	5,560	16,300
4. Asayita-Berga	18,200	37,200
Total	30,400	62,690

Source: Awash Valley Authority.

26. Cossins, "Green Heart of a Dying Land," Microfilm, Addis Ababa, 1973, p. 12.

27. Ibid.

In the Lower Valley a total of 31,200 has. is estimated to be under irrigation, representing nearly 50 percent of the total irrigable area. (See Table 5.) Out of the total irrigated area, 10,000 has. have been developed by the Tendaho Plantation Share Company (TPSC); about 940 has. (140 has. in Logiya and 800 has. in Berga) have been developed by outsiders; the remaining area, which is about 17,260 has., belongs to "out-growers."[28] Cotton is the main crop in the Lower Valley and cultivation on a commercial basis has been introduced in the Awsa region by TPSC.

TPSC was created in 1960 when the Ethiopian government and the Mitchell Cotts Group, Ltd., signed an agreement to establish cotton plantations on experimental bases in Tendaho. Pilot schemes were set up in 1961, and in 1962 plans were modified to develop three 6,000-has. plantation units as the focal points for cotton cultivation in each selected area. The planned target of 18,000 has. has subsequently been modified, mainly because of the unanticipated rapid cultivation undertaken by the Afar population and the pressure exerted by livestock raisers. So far the Company has developed 10,000 has. and it may ultimately increase the cultivated area to 12-14,000 has. if circumstances permit. The Company has made substantial contributions in meeting national requirements for cotton and in providing employment to a large number of people.[29] Its greatest contribution may be in the inducement to cotton cultivation it gave to a segment of the local population, but this was not devoid of stresses and conflicts which seem to be associated with development endeavors.

TPSC experienced some failures initially but after overcoming the setbacks (mainly associated with soil salinity problems), it was able to demonstrate to the local people the production potentials of the arid land. It has also made deliberate attempts to induce development by distributing cotton seeds and pesticides, by giving advice on irrigation cultivation to small growers, and by purchasing their produce for processing in its Tendaho-based ginnery. Initially small-farmer cotton cultivation was undertaken by highland farmers who had migrated to the region to work as daily laborers on plantations at Berga, Dubti, and Ditbahri. These "strangers" had acquired land by leasing it from the heads of Afar clans but subsequently cultivation was undertaken directly by an increasing number of Afars. Large farmers who use machinery such as tractors and pumps have appeared and have increased in number in the last five years. Table 6 shows the area cultivated by different groups of people.

The estimates in Table 6 derived from on-the-spot visits to properties are considered approximate; still they give an indication of the area cultivated by different groups. Cotton cultivated by small Afar farmers was negligible; nearly all the area indicated as being cultivated by 1,395 Afars was for corn production. Almost 65 percent of the cotton was cultivated

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28. Estimates of the actual cultivated area vary from 14,495 to 19,305 has. since actual measurements have not been taken of the area developed by Afars.

29. In 1972 TPSC employed 628 permanent and 1,959 seasonal employees. Ethiopian Herald, 28 May 1973.

Table 6. Area Cultivated by Large and Small Farmers

Population Groups	Large Farms 40 has.		Small Farms		Total Area has.
	No.	Ha.	No.	Ha.	
Afars	7	1,530	1,395	2,710	4,240
Highlanders	4	880	1,118	2,980	1,860
Sudanese	2	550	--	--	550
Arab	6	2,890	--	--	2,890
	19	5,850	2,513	5,690	9,540

Source: A survey made by AVA for the 1970-71 season.

by 19 persons, representing only about 1.5 percent of "out-growers." The number of highland farmers who were mostly engaged in cotton cultivation has been reduced substantially since 1971. Following the "Assayita disturbance of June 1971" the number of "highland outgrower tenants" has probably fallen to 250-300 persons in 1971/72, compared to over 1,000 in 1970/71.[30] Cotton cultivation in the delta is organized under the supervision of the "malak,"[31] who allocates land and water to cultivators, distributes inputs (fertilizer, credit), and supervises the harvesting and marketing of crops.

Credit to large and small farmers is controlled and administered by the office of the Sultan, H. E. Bitwoded Alimira. The main source of credit is the Addis Ababa Bank, a private banking institution which has a branch in Assayita. Credit is advanced on a short-term basis and is guaranteed by "the Sultan, his heirs, and all contractual buyers." "H. E. the Sultan of Awassa, every malak (sub-chief) and every borrower pledges the cotton crop to the Addis Ababa Bank until loans, interests, and other charges thereon are fully liquidated."[32] In the 1972/1973 crop season the Addis Ababa Bank financed "a total of sixty farmers engaged in the cultivation of 13,000 hectares."[33] Credit advanced in the form of "loans" and "letters of credit" in 1972/1973 season amounted to $Eth. 6.5 million. Of the "60 primary creditors on file at the Sultan's office . . . malaks account for less than half of the files" and "the other malaks are generally included under the credit of the largest farmer within a particular management unit."[34]

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30. J. R. Hogg, Agricultural Extension Informal Report no. 8, p. 19.

31. Malaks are land holders' agents but can also be engaged in cultivating their own land.

32. Addis Ababa Bank, Private Communication to the author dated October 15, 1973.

33. Ibid. Other banking institutions--Commercial Bank of Ethiopia and Agro-Industrial Bank--provide credit to H. E. the Sultan and other farmers, but the amount is not readily available.

34. Cossins, "Green Heart of a Dying Land," p. 66.

Because development projects in the Lower Valley are seriously affected by land tenure issues it is necessary to examine the problems of the area in more detail.

C. Land Tenure and Ownership in the Lower Awash Valley

J. N. Cossins, who recently completed a sociological survey of this area, identifies four major types of land-use which he uses as a framework for an analysis of the land tenure situation in the Lower Valley. These are: (1) the old Awsa cultivated area; (2) the new self-generated malak areas, which encompass large farmer land users as well as small farmer landowners and tenants; (3) settlement schemes (AVA Dubti Settlement and Sultan's Dubti Settlement); and (4) plantations (Dubti, Ditbahri, Berga).[35]

1. The Old Awsa Area: This is seen as the "Delta Afar's Cultivated Heartland." Here "land is usually held in free hold by an individual and although there are no boundary records, physical markers are sometimes noted."[36] Land is divided into plots, which tend to be "rectangular" in shape with a "narrow canal frontage." A unit of measurement known as "robe," or "rope" (equivalent to 40 forearms) is recognized and used by the inhabitants of the Awsa Delta. Land disputes were not common but when they occurred solution was provided by a procedure which involved five decision levels--clan elders, clan makahans, area malaks, deputies of the sultan, and the sultan, whose decision was final. It is suspected that most disputes were solved at the clan elder level. Inheritance of property involved division of land to all the children of the owner on the basis of 2/3 for sons and 1/3 for daughters, but normally the male heirs retain and cultivate the land until their death at which time transfer will be made to the daughter's husband. Sale of land to outsiders is considered to be "rare" and sale to "non-Afars unheard of." Fragmentation and diminution of plot sizes resulting from the inheritance system are alleviated either by moving into livestock herding, by clearing and developing a new area, or by taking up sharecropping arrangements on a 50-50 basis in already developed areas. Maize and date palms are the main crops cultivated in the delta. Small-farmer cotton cultivation is also practiced in the area. The "old Aussa Cultivated Area" is described by Cossins as a "rich land, small compact and surrounded but not overawed by new cultivation . . . a real oasis."[37]

2. Settlement Schemes: The Dubti Settlement is the oldest scheme established by AVA in the Awash Valley. It was started in 1966 with 20 Afars selected from pastoralists of the area to be settled in 100-has. farms. Each settler was allotted 5 has. and physical infrastructure and services were provided by AVA. To date 19 settlers remain on a 96-has. farm.[38] This scheme, like Amibara in the Middle Valley, was initiated as a pilot

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35. Ibid., p. 67.

36. Ibid., p. 68.

37. Ibid., p. 70.

38. An additional 50 has. were cleared and sown to cotton in 1971/72 and subsequently damaged by invading cattle.

project designed to find out the best methods required for the transformation of a semi-nomadic pastoral population to settled irrigation farming.[39] Technical and managerial problems identified in the course of the past years have "largely been overcome," but the social and policy problems "generally remain."[40] Central to these problems is the question of land tenure. Land has been allotted to settlers on a probationary lease of three years to be followed by a tenure agreement which would provide security to the tenant. The tenure agreement has not been finalized, however, and AVA continues to control management decisions on individual farms. Perhaps a more critical issue is not the question of security of tenure to settlers (who are very few in number and who are already making substantial profits) but rather how to expand settlement so as to meet AVA's envisaged target of settling 2,500 Afars.[41] The rapid expansion of large-farmer cotton cultivation and the "annexation of land by H. E. the Sultan of Aussa" has created a challenge for AVA in meeting its projected settlement. Delayed action on the part of AVA is considered as one of the causes which led the Sultan to initiate his own settlement scheme.[42]

3. The Sultan's Dubti Settlement: The settlement scheme initiated by the Sultan on a 1,000-has. area is now nearly two years old. The land was set aside by AVA for settlement expansion and the development of irrigated pasture for livestock raising by pastoralists whose grazing areas have been alienated as a result of rapidly expanding cotton cultivation. The seizure of the land by the Sultan was prompted partly by personal desires and partly as a reaction to the delayed action of AVA. Although it was suspected initially that the annexed land was to be used for personal cultivation, it seems that firm commitment and plans have now evolved to settle some 400 Afars on 2.5-has. plot per setller.[43] "Tacked on the northeastern end of TPSC Dubti and nearly blocking any further expansion of AVA's settlement farm," the settlement has a "listed 400 Afar settlers, a malak (manager) and several tractors."[44]

The closing of the Boyahle and Ferite break-away canals by TPSC (with the approval of AVA on condition that TPSC supply the Afars with sufficient water for cattle)[45] is also cited as one of the reasons for the Sultan's annexing the land from AVA. The situation has led to a serious confrontation

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39. I.E.G. AVA, "Awash Valley Development, 1967-1971," Informal Report no. 8.

40. Hogg, Informal Report no. 8, p. 42.

41. Goudie, "Irrigated Land Settlement." Recent draft plans envisage a settlement of only 200 in 1978 and 1979.

42. Cossins, "Green Heart of a Dying Land," pp. 71, 73.

43. Ibid., p. 71.

44. Ibid., p. 48. Seventeen out of 20 clans listed were identified as "having clan ownership areas on or near the settlement and were . . . grazing area occupiers on the settlement area in the past " (p. 72).

45. Kassahun, "Report on the Socio-Economic Conditions," p. 11.

between AVA and the Sultan. The Sultan had made private arrangements with TPSC for release of water from the TPSC gravity canal, but when AVA made a retaliatory move to discontinue the supply of water the Sultan took the case to the provincial court at Dese. The court has ruled that AVA must rescind its order and permit the release of water for the settlement. This decision has caused the imprisonment of AVA's area manager, thereby intensifying the issue of land tenure and land-use in the settlement area in particular and in the Lower Valley as a whole.

4. The Plantations: TPSC is running two plantations at Dubti and Ditbahri and is managing a third plantation at Berga. The total concession area to be developed was reckoned at 18,000 has., composed of three plantations each having 6,000 has. To date TPSC has developed about 6,000 has. at Dubti and 4,000 has. at Ditbahri. The Berga plantation, which is 800 has in area, is not part of the concession and TPSC runs the farm under a management contract with the owner. On account of the rapid increase in the amount of land cultivated by Afar farmers, the fulfillment of TPSC's concession target has turned out to be difficult, perhaps impossible. Deliberate steps have been taken by the Afar sultanate to develop land adjoining the existing plantations, thus making expansion difficult and hazardous. The development of the plantations on land which in the past was used for dry-season grazing by immigrant pastoralists and resident herdsmen has created problems. Compensation was not given to the population and the pastoralists have reacted by grazing on cotton fields and destroying crops. The construction of flood control bands and the diversion of floods have further restricted grazing of livestock and pastoralists were forced to drive their herds to dry-season grazing areas which are already crowded and over grazed. The severe drought of the last four years has had serious effects on the nomads and their livestock resulting in starvation and death. TPSC may not be responsible for all the hardships faced by the nomadic and semi-nomadic population but despite its contribution to the national economy as a main supplier of cotton to domestic factories, it is nonetheless regarded by many, especially by those who have been adversely affected by recent developments, as the main cause of dislocation.

5. "Self-Generated Malak Areas": These areas encompass the areas controlled and operated by large farmers as well as small farmers (landowners) and tenants. Almost all the large farms and many of the small farms, particularly those growing cotton, are sultan-generated rather than "self generated." The situation relating to land control in the Lower Valley is shown in Table 7.[46]

Out of the total cultivated area in the Lower Valley (excluding TPSC concerns) land directly operated by H. E. the Sultan and his immediate family amounts to 21.2 percent. The 55.5 percent operated by tenants (large and small) is considered to be controlled by H. E. the Sultan through the office

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46. Cossins has indicated in his recent study (p. 39) that the Sultan and his immediate family's portion of the farmland is 15 percent of total lower Awash cultivated area or 22 percent of Afar cultivated lands, and 17.5 percent of Awash delta cultivated area.

Table 7. Land Holding in Lower Valley

		Area (has.)	Percent
1.	Land controlled and directly operated by H.E. the Sultan and family	4,085	21.2
2.	Land operated by H.E.'s tenants	10,720	55.5
3.	Land controlled and operated by H.E.'s relatives, deputies, and friends	1,150	6.0
4.	Small farmer operations (allocated by H.E.)	2,550	13.2
5.	Berga Farm (private non-Afar)	800	4.1
	Total	19,305	100.0

Source: Awash Valley Authority.

of the area malak. Land cultivated by tenants is secured from area malaks on verbal lease agreements on a 30-40 percent sharecropping basis, with smaller farmers paying the higher share.[47]

Cossins, who seems to be sympathetic toward the Sultan, states that "it is probable he now commands an area much less than that which the Aussa Afar would uncomplainingly cede."[48] He also estimates the total production of cotton at "140,000 quintals worth E$9,500,000 gross and E$1,500,000 net." After making these estimates he makes a statement which sounds like an apologia: "Now while the Sultan's slice of this may seem an inordinately high amount, one should remember that the Sultan personally distributes staggeringly large amounts for Afar relief . . . .," without bothering to refer to the equally "staggeringly large amounts" he uses for personal spending. H. E. the Sultan has not up to now paid any land tax and/or agricultural income tax to the national treasury. What is most relevant for our purpose here, however, is that H. E. the Sultan controls a large amount of land, the ownership of which has not yet received legal recognition.

It should also be mentioned here as a corollary that H. E. the Sultan is a government official who draws monthly salaries from the Treasury of the Central Government. He is the Administrator of the region, the traditional and the religious leader of the Afar, and an agro-businessman who runs farms, controls and disburses credit, and controls the marketing of crops. He has his own private militia which enforces security and tranquillity in his sultanate. There are three public authorities operating in the Lower Valley--the Sultanate, the AVA, and the District Representative of the central government. The latter are poorly represented in the region and most of the public services and related functions seem to be carried out either by the office of the Sultan or by the AVA office. Although the

47. Hogg, Informal Report no. 8, p. 10.

48. Cossins, "Green Heart of a Dying Land," p. 38.

earlier relations between these two offices were based on reciprocity and cooperation they have increasingly taken the form of confrontation and even conflict. At the root of such confrontation is the question of land ownership and water use. The issue of ownership and the possible solution to existing problems will be treated in subsequent chapters.

To sum up the situation in the Awash Valley, rapid development of commercial irrigated agriculture has taken place in the last ten years, particularly in the Middle and Lower Valleys. Such developments have had certain positive results in contributing to national requirements for cotton production and in providing employment to a sizable population estimated at a total of about 92,000 persons.[49] At the same time, grazing lands have been alienated and large numbers of people have been dislocated, particularly in the Lower Valley, without any compensation. The major problems related to land tenure, land-use, and development shall be treated in some detail in the following pages.

III. PROBLEMS OF LAND TENURE, LAND-USE, AND ORGANIZATION

In this section an attempt will be made to focus attention on: the traditional uses of land and associated problems, contemporary uses and conflicts of interests, ownership rights and claims, and organizational and institutional issues.

A. Problems of Land Tenure and Land-Use

It has been indicated earlier that traditional land-use in the Awash Valley is characterized by both sedentary agriculture in the highland watershed region and pastoral nomadism in the flood plains. The development of cultivation in the Awsa delta based on flood irrigation has also been identified. Sedentary agriculture in the watershed region which has been practiced for generations is based on cereal cultivation, the raising of draft animals, sheep, goats, horses, etc. Ownership of land is largely individual, mostly by small farmers whose holdings have, through the years, been so fragmented and subdivided as to result in diminutive-sized holdings of less than 5 has. Large-sized holdings may be found in the northern and southern portions of the watershed region, but for the region as a whole large-sized holdings are exceptions to the norm.[50] In the past, regional conflicts and continued fighting coupled with endemic diseases had checked rapid population growth. With pacification and the introduction of health services the rate of population increase has been accelerated and population

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49. Berhane Selassie and Mohammed, "General Information on the Development of the Awash Valley," p. 14.

50. There are a number of tractor-operated holdings in the north at Chefa, Jewuha, and Robi, and in the south at Tibila, Wilinchiti, and Boset.

pressure is noticeable in most of the region. Steep-sided slopes are cultivated and there has been a continued expansion of settlement and cultivation in the lower and dryer parts of the valley which in the early years were regarded as malarial, hot, dry, and unhealthy.

In the lower parts of the valley pastoralists have been pursuing the nomadic way of life with little or no outside interference. Nomadism in this part of Ethiopia is characterized by migratory grazing with "flocks and herds maintained for most or all of the year in a system of free-range grazing, but following definite migratory routes from the communal centre to reliable seasonal pastures elsewhere when grazing at the centre is no longer available."[51] Both horizontal and vertical (transhumance) seasonal movements are involved in the migratory system. Movements are organized in small groups and although migration is not confined to tribal territories, it follows definite patterns. Each group tends to frequent the routes and the pasture areas which had proximity to the core where the very old and the weaker members are stationed, together with few milking cows. The core area is usually located near a well or in proximity to a body of water or a dry river bed. Although ownership of land in the core as well as in the tribal territory is not absolute and access to members of other clans is relatively free, the use of the water-well and the core grazing area is restricted to clan members.

In the Afar area, where detailed studies have been made by a sociologist, both dry-season and wet-season movements have been identified.[52] Retreat to dry-season wells and permanent water areas is considered to be "a predictable and tribally distinct occurrence," while wet-season grazing is haphazard, corresponding to the "movement limits of amorphous tribal groupings" within the Afar population.[53] The dry-season retreat is normally along or in proximity to permanent water bodies either on the floodplains or in the highland regions. The continued expansion of traditional small farmer cultivation to dry-season retreats has reduced the areas of pastoral grazing. Highland grazing on crop residues or grasslands was made possible in the past upon payment of tribute or the granting of reciprocal grazing rights to highlanders but has recently been disrupted by drought.

The traditional uses of land based on subsistence agriculture in the highlands and the migratory grazing of livestock were marked by periodic conflicts between different tribes as well as between clans belonging to the same tribe. Such conflicts were sometimes intensified, leading to periodic fighting and killing. Cattle raids and counter-raids were common

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51. UNESCO, "Nomadic Pastoralism As A Method of Land-Use," Arid Land Research, 1962, p. 358.

52. Cossins, "No Way to Live," p. 58.

53. Ibid., p. 60. The predictable dry-season movements can be upset by weather fluctuation and irregularity of rainfall. Cossins observed that "the drought has shattered all semblance of order, the highlands are closed and hostile on a wide front, and there is fear that agriculture may slowly engulf the best riverine lands" (p. 52).

until recently when pacification was made possible with the strengthening and expansion of state power in the regions. Pacification was facilitated by the development of roads and communications, the establishment of settlement centers and villages, and the setting up of administrative offices and police stations.

Partly because of such pacification, increase in population has taken place both in the higher and lower regions of the valley. Dry-season grazing areas which once provided pasture for the nomadic population have been taken up by agriculture, and the quality of vegetation in the wet-season grazing areas--the wooded and bush zone--has deteriorated. This deterioration is a result of both intensified use by grazers and drought. Thus it has become increasingly difficult to keep a natural balance while following the migratory movement system of the nomadic way of life. Ecological deterioration is not limited to the grazing areas in the wooded and bush zone of the valley; it has also affected the higher altitudes where the vegetation cover on steep slopes has been cleared and easily erodible land put into cultivation. Thus subsistence farmers residing in the watershed region and pastoralists of the lowlands seem to have approached the limits of their precarious existence. The situation has, however, placed a greater burden on the nomadic population since contemporary agricultural developments in the floodplains have added additional stress and strain to the nomadic way of life.

The developments which took place in the last ten years have been outlined earlier. Here we shall only point out the relevant issues involved in conflicting uses of land. While some developments have taken place in tractor-operated, rain-fed agriculture on individually owned land, most of the development has been in irrigated agriculture in the floodplains. The tractor-operated farms in the highland valleys at Chefa, Jewuha, and Robi were also used for dry-season grazing before their transfer to individual owners. Even today grazers from the lower regions migrate to these areas to graze on crop residues and leftover pasture lands and to water their animals. But it has become very difficult to sustain the large herd of livestock which moves to the area during the dry season.

The land-use problems identified in the Upper, Middle, and Lower Valleys are similar insofar as the issue of grazing rights and compensation is concerned. But there are other issues which are particular to each region. In the Upper Valley the fencing of a sizable area for wildlife reserve and the alienation of land resulting from the expansion of sugar, cotton, and citrus plantations affect a distinct tribal group (Kereyu) which has little or no linguistic and social affinity to the Afars residing in the Middle and Lower Valleys. Here the tribal leaders have started negotiations for compensation and decisions have been made to allocate land for the population affected by the alienation of land. Because it lies close to settled areas and to all-weather highways and the railway, land acquisition by individual owners has been accelerated in the Upper Valley. In contrast, individual ownership is not legally recognized in the Middle and Lower Valleys.

The problems of land-use in the Middle Valley should also be treated separately from those of the Lower Valley. In the Middle Valley there was

neither a sedentary population nor cultivation before the advent of modern agriculture. Also, land and water resources are relatively abundant and possibilities for alternative developments are greater here. In the Lower Valley the crucial problems are associated with ownership of land. Here a long-established and well-organized traditional society was engaged in cultivation and livestock raising before the advent of irrigated cotton. Development has been spearheaded by the leader of the tribe who, together with his immediate family and deputies, controls and uses the greater portion of the newly developed areas. Pastoralists who have been dislocated from their traditional grazing areas are more severely limited in their dry-season grazing movements than the Afars in the Middle Valley. In terms of location, the relative proximity of the Middle Valley to the crowded watershed regions should probably be added as a characteristic feature, even though movement of labor has not been seriously restricted by distance. Distance will be further reduced when the new macadamized Awash-Tendaho highway running through the Middle Valley opens, also making access to Awsa much easier.

Although distinct issues and problems having direct relevance to each part of the valley can be identified, the issue of ownership rights is ubiquitous. The ownership issue involves: a) the Government, b) the nomadic group, and c) individual claimants. Ownership rights of the Government are based on the Revised Constitution of 1955. Article 130(d) of the Constitution vests the right of ownership in Government: "All property held and possessed in the name of any person, natural or juridicial, including all land in escheat and all abandoned properties, whether real or personal, as well as all products of the sub-soil, all forests and all grazing lands, water courses, lakes and territorial waters, are State Domain." The validity of this provision as it relates to rights of expropriation of land without compensation has been questioned on legal grounds.[54] In practice, expropriation has been made with recognition, in principle at least, of the right of compensation for existing users of the land. Compensation to the nomadic population for the alienated grazing lands in the Awash Valley is a standing policy of the Awash Valley Authority. The principle of "eminent domain" could also be resorted to even in areas which are occupied and used by individuals or groups, if land is required for a "public purpose." Still, until "state lands" are clearly identified and registered and "private State property" is separated from "public State property" conflicting claims will tend to be sustained and intensified in the future.[55]

In the nomadic regions of Ethiopia ownership rights are not legally recognized by the Government, but such rights can be granted to individuals on the basis of the Land Grant Orders.[56] But so far the grant orders

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54. J. Bruce, "A Preliminary Consideration of the Legal Status of Nomadic Lands," Mimeo., Feb. 20, 1972.

55. "Private State Property" is land alienable by sale, lease, grants, donation, etc., and "Public State Property" is land assigned for public use, viz. public parks, airports, streets, markets, etc.

56. Land Grant Orders of 1936 and 1945 E.C.

have not been applied in the floodplains of the Awash Valley. Making reference to Land Grant Orders, which entitle landless Ethiopians to apply for grants of half a gasha (20 has.) and indicating their continued use of the land and payment of cattle taxes, pastoralists have started to submit applications individually and/or as clan representatives.[57] Many of the applicants have also expressed a desire to use the land for cultivation. While the step taken by the clan leaders is proper, the motive is not clear. Some of the applications made on behalf of groups list all the male and female members of the clan as well as the children, and request grants to all listed. Estimates of the available land in the clan areas, on the other hand, do not warrant allocation since they fall short of the requests made. Besides, allocating grazing land to individual pastoralists is not considered desirable since it could easily lead to dispossession of clan members either by outside interests (farmers, speculators) or by the stronger and more enlightened members of the group.

Individuals who have been cultivating cotton in the Lower Valley, or who have not been allocated irrigable land by the Sultan of Aussa, or who have not been included in the settlement pilot schemes of AVA have complained against land grabbing and have requested the government to adjudicate and distribute land to individual members of all clans. It was indicated earlier that in the Lower Valley different forms of tenure have evolved including: (1) individually owned plots of the delta area; (2) sultan-generated, malak-managed large-scale and small-scale farms; (3) settlements on small holdings; and (4) plantations. With the exception of the AVA Dubti Settlement and the plantations, all other forms of tenure are not legally recognized by AVA. In the Lower Valley the number of landless tenants (both Afar and non-Afar), and landless laborers has been increasing.[58] Also, here "group ownership" of land involving the leasing of land by khida members to a large farmer or manager (malak) has also been recognized. Land tenure and water use are inseparable in the Lower Valley, since irrigation cultivation and flooding of grazing areas demand regulated distribution of water. AVA, which has jurisdiction over the control of land and water uses, has faced serious difficulties in enforcing its rights and has not been able to convince Afar farmers to sign concession agreements for the use of water and land which they consider as their property. The issue of land tenure and land-use in the valley is complex and even confused. Revision of existing rules--i.e., the customary rules of the people and the legal provisions authorizing AVA for control and disposal of land and water--and the formulation of new rules have become necessary.

B. Organizational and Institutional Issues

The AVA, it will be recalled, was established by charter "to identify, plan, develop and administer the natural resources of the valley."

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57. A total of 67 clan representatives had filed applications to the Ministry of Land Reform as of July 1973: 18 from Yifatina Timuga, 3 from Tegulat na Bulga, 11 from Awsa, 35 from Chercher, Adal, and Garaguracha.

58. The number of non-Afar tenants was reduced from 1,000 in 1971 to less than 300 as a result of eviction.

The organization is structured and includes a policy-making body (Board of Commissioners) and an executive body headed by a general manager and responsible to the Board of Commissioners. The Board is chaired by the Vice-Minister of Agriculture and its membership includes representatives of the Ministry of Finance, the Planning Commission Office, Ministry of Education and Fine Arts, the Water Resources Authority, Ministry of Commerce, Industry, and Tourism, and Ministry of Interior. The General Manager of AVA has the rank of Vice-Minister. Organizational, administrative, and institutional problems are associated with the composition of the board, and the limited power and sanctions of the executive body.

In line with the principle that "All formal organizations are molded by forces tangential to their rationally ordered structures and stated goals,"[59] such tangential forces have emerged in the Awash Valley challenging the ordered structure as well as the stated goals of the authority. Perhaps the most significant such tangential force is the Sultan of Awsa. The Sultanate of Awsa has developed an institution based on Afar tradition and has been strengthened by considerable wealth accumulated in the past few years from cotton cultivation. The Sultanate is now challenging both the authority and the stated goals of AVA as they relate to land tenure and land-use, and it has expanded its influence widely among the Afar population residing outside the Awsa delta. To the tangential forces of the Sultan should be added the forces embodied in the provincial and district administrative structure. These forces have not been adequately represented in AVA's structure. In order to maintain the organizational system of AVA and to improve its structure, reformulation of policies and stated goals and reorganization of the structure itself seem to have become mandatory.

IV. PROBLEMS OF LAND TENURE AND DEVELOPMENT IN SELECTED COUNTRIES

A. Development Problems in the Awash Valley: A Review

In the introductory section of the paper the Government's national development strategy was outlined and it should be recalled that increased production and more equitable income distribution, with the view of creating increased opportunities for employment, are the main objectives of the Fourth Five-Year Plan. The accent is on small-holder improvement, low-cost settlement, and integrated rural development.

Development in the Awash Valley should, therefore, be directed to enhancing the national development goals. The on-going and the planned development programs and problems relate to: (1) dry farming in the elevated watershed areas; (2) settlement of nomads; (3) range control and management; and (4) concession agriculture.

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59. Philip Selznick, TVA and the Grass Roots (Univ. of California Press, 1949), p. 251.

Promotion of consession agriculture has been the major approach in the agricultural development of the Awash. Concessions established to date have been geared to the encouragement of foreign investment. This has been achieved to some extent together with increased production of specialized crops, viz., cotton, sugar, citrus. Some employment has also been generated, particulary where cultivation is combined with processing, e.g., Wonji, Metahara-sugar, and TPSC-cotton. Ethiopia requires an increased production of these and other crops but ways and means have to be explored to encourage more Ethiopians to participate in such activities. Concession agriculture may not necessarily be the best approach to achieve that end. Some of the approaches adopted by neighboring countries, for example, Gezira in the Sudan, could provide insights in the search for a different approach.

The settlement of nomads is a difficult and expensive venture demanding complex physical structure, well-trained and experienced management, and substantial capital investment. AVA's pilot schemes in Amibara and Dubti have been useful in demonstrating the possibilities and limitations of such schemes. Although plans are being prepared to increase the number of settlers in the existing areas and to open up new areas, the possibilities of absorbing a large number of settlers under such schemes are limited. An alternative approach to irrigated settlement is livestock raising on the basis of range control and mangement. By giving recognition to clan and tribal land rights, by providing the necessary infrastructure, and by adopting range-management procedures, improvement of both livestock raising and the living standard of the population is possible. AVA has initiated experimental programs toward this end but details on land tenure and management have not been worked out and it would be useful to look into the approaches adopted by other countries such as the group ranches established in Kenya.

Much of the area which is now under dry farming has steep slopes that are easily erodible. The natural vegetation has been destroyed. Soils are already exhausted and drought has become a recurring phenomenon in most of these areas. The introduction of watershed management in such areas is overdue but not too late. Steps should therefore be taken to introduce land and water conservation. Land improvement programs have to be worked out with a view towards reinstating the ecological balance and creating alternative employment opportunities for the inhabitants of the region.

In order to get some insight about possible alternatives we shall briefly examine how problems of tenure and use have been approached in the Gezira scheme of the Sudan, in the nomadic regions of Kenya, the settlement projects in Libya, and the irrigated Euphrates delta in Iraq.

B. Gezira Scheme of the Sudan

The Gezira scheme covers about 2 million acres and involves 75,000 farmer families.[60] The scheme was initiated with the erection of the first

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60. The main source for the material included in this section is Arthur Gaitskel, "The Development of the Gezira in the Sudan," in Rural (cont.)

pumping station on 600 acres of rented land. After 1910 a series of pumping projects were added; by 1923 irrigation agriculture covered 60,000 acres and the decision was made to build a dam on the Blue Nile. Farms were laid out in units of 300 acres with 10 acres for cotton, 5 acres for sorghum, 5 acres fodder, and 10 acres fallow, with field rotation following this order. Farm units and the rotation system were retained with the expansion of the scheme until recently when some modifications were introduced. The Gezira scheme has had its ups and downs, and from its inception onwards it has undergone a series of transformations in management, tenancy arrangements, rotation, etc. What is of particular interest to us here are the question of land tenure and the land-use arrangements that were adopted by the scheme.

The pilot schemes were established with the objective of achieving "optimum production" and "a wide dispersal of benefit and retention of benefit by the actual farmer." Ownership arrangements had to be worked out to meet this objective and to that end a series of steps were taken. The first step was to pass a "law making all transfers of land invalid unless registered in government land offices which at the same time permitted transfers only between bona fide Gezira farmers." At the same time a land survey was initiated to determine who owned what and to "register title, exact location of holdings and total acreage." The survey revealed that 90 percent of the land was owned by individuals whose average holding ranged from a "fraction of an acre up to a maximum of 3,000 acres." The unclaimed land (10 percent) was registered as government land. Once the ownership and the extent of holdings were ascertained, "government announced that it intended to rent all the land required for irrigation in the Gezira for a period of 40 years." Rent was fixed at the "highest market rate" under rain conditions. Outright purchase was made of the land taken for canals. This arrangement prevented landowners from taking advantage of the increases in land value resulting from development for which the state was paying. It also allowed the state to make decisions on land-use planning, the selection of beneficiaries, and the conditions of tenure.

The land-use pattern adopted was that of the pilot schemes to which people had been accustomed, i.e., 30-acre family units divided on a fixed rotation. Farm units were allocated on the basis of conditional tenancy, with allocation priority to landowners. Landowners were allotted land in proportion to their acreage but were limited to units that could be personally cultivated. A landowner was also given the option of nominating his sons, relatives, and friends for allocation. Units were allocated on or close to the sites previously owned by beneficiaries, but once they received an allocation the owners were converted into government tenants. The next priority was given to local villagers who were allocated units which remained unclaimed. Tenancy conditions included: "compliance with agricultural instructions and delivery of cash crop to the management." They also prohibited fragmentation and mortgage. The "recovery of loans secured on crops

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Development in a Changing World, ed., R. Weitz (1971). Refer also to D. S. Thornton, "Agricultural Development in the Sudan Gezira Scheme," for recent development problems and proposals.

produced on a tenancy, except those granted by the management" was rendered invalid by law. Tenancy could be terminated if conditions were not followed.

In order to recover the cost of investment and obtain a dividend, the government adopted a sharecropping arrangement which was customary on the fringes of the river whereby 6/10 of the crop went to landowners who also supplied water wheels, and 4/10 to the man who worked the land and grew crops. As the provider of water and land the government claimed the traditional 60 percent, leaving the 40 percent to the tenant. This arrangement was modified with the inclusion of the Sudan Experimental Plantation Syndicate in the scheme. The share of the cash crop profits then became: 40 percent government, 40 percent tenant, and 20 percent syndicate. Tenants were not required to make payment of sorghum and fodder crops cultivated for subsistence. The Syndicate was replaced by the Sudan Gezira Board in 1950 and subsequently a number of modifications have been introduced in the sharecropping arrangements; the latest situation is: tenants 50 percent, Gezira board 10 percent, government 36 percent, social development fund 2 percent, local councils 2 percent.

The usefulness of tenancy conditions and the sharecropping arrangements as well as the rotation system of land-use are now being questioned and proposals have been made for rearrangement in order to make improvements in the Gezira scheme.[61] What is significant to us is that the Gezira scheme has made possible the participation of a large number of rural people in agricultural production and in the distribution of benefits. When the scheme was devised "deliberate plans were made not to adopt the strategy of relying on existing landlords and potential entrepreneurs." And "to stop the cornering of benefits by speculators, landowners, and money lenders and the creation of a rich minority."[62] The land tenure and land-use arrangements which were adopted by the designers of the Gezira scheme were very crucial to the success of the project. There are useful lessons that can be learned from the Gezira scheme and possibly adopted for the development of the Awash Valley, particularly in the Lower Valley where there are physical and social conditions which would make possible the adaptation of a similar development scheme.

C. Kenya: Group Ranches

In Kenya a system of adjudication and registration of grazing lands based on customary rights of the Masai tribe has been introduced in the semi-arid regions.[63] The objectives were to improve the economy of the Masai so as to provide an opportunity for participation in the national economy and to improve the deteriorating condition of the range lands by

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61. Ibid., p. 533.

62. Ibid.

63. Material for this section has been drawn largely from Robert K. Davis, "Some Issues in the Evolution, Organization and Operation of Group Ranches in Kenya," East African Journal of Rural Development 4 (1971). Also available as Land Tenure Center Reprint no. 95, University of Wisconsin, Madison.

introducing mechanisms and procedures which would allow control of the number and improvement of the quality of the livestock. The adjudication program was initiated in order to ensure the conversion of tribal lands from common property to individual property without dislocating traditional users of the land and creating landless individuals. The procedures and organizations that were worked out to achieve these objectives involved: (1) identification and adjudication of areas of customary users; (2) organization of groups and the election of "group representatives" and "group committees"; and (3) establishment of the office of the registrar representing the Government. The election of group representatives, the drawing up of a constitution, and the creation of the group committee would make the group eligible for government loans. Group committees are elected annually and are responsible for the management of the group ranches. Members of group representatives remain in office until dismissed and their functions resemble those of the traditional elders in that they are directed to arbitrate individual disputes and disputes arising from the actions of the group committee.

In the Kaputici area in Kajiado district an area of 664,000 acres has been surveyed and registered and 14 group ranches with an average area of 47,500 acres have been established. A total of 100 families are registered as owners of these ranches. Procedures for the distribution of land, allocation of grazing, transfer and control of livestock need to be elaborated further.

The documentation system was devised with the view of making "land . . . an economic good subject to free buying and selling with the simplest manner of ownership or use rights transfers possible." The system is based on the principle of private ownership adopted in Kenya with the conviction that "incentives and opportunities of private property offer a crucial requirement for economic progress." Other alternatives exist which would involve government in the direct management of the common property or in the provision of "regulation and incentive devices to encourage conservation of the range."

D. Libya: Development of Tribal Lands

In a study made by the FAO on the "Development of Tribal Lands and Settlement Projects,"[64] several recommendations were made to the government of Libya concerning land tenure, land-use, and settlement conditions in tribal areas and in new settlement projects. After making detailed investigation of the land tenure situation in the "Tahal Al Akhadar" area of Libya the team of experts identified conflicting claims of rights of possession by the state on one hand and by tribes, sub-tribes, and individual tribesmen on the other. The registration law of 1965 recognized the land as being jointly owned by tribes residing on it but the rights of usufruct were widely recognized and the state held the property title known as Rakbah. Tribal lands were not registered either in the name of the tribes

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64. FAO, "Report to the Government of Libya on Development of Tribal Lands and Settlement Projects," Rome, 1969.

or in the name of the state. Water-rights claims were also considered to be equally confused and private ownership of many water sources were identified but not registered. The major recommendations made by the team of experts were: (1) settlement projects must be preceded by tenure studies in order to determine rights of claims (individual or collective), identify farm land boundaries in tribal occupied areas, register farm land, inheritance rights of men and women, etc.; (2) promulgation of a law on land settlement policy; (3) compulsory adjudication and registration in development areas, and the granting of title to settlers on the basis of a temporary lease; (4) regulation of water rights; and (5) effective implementation of laws and regulations. Information was not readily available on the actual situation and it is not possible to indicate the progress made after the FAO study. The recommendations outlined here indicate some of the necessary measures that could be considered in the development of settlement projects in arid regions.

E. Irrigation Agriculture Among the Elshabana of Southern Iraq

This case study is included to show a situation where tribal autonomy is minimized with an increasing involvement of the central government in local affairs. R. A. Ferena, in his book Shaykh and Effendi, illustrates the evolution of a land tenure system in southern Iraq in the Euphrates Valley and the gradual loss of local autonomy.[65] Tribal authority with respect to irrigation declined following changes in "tribal organization and authority." The changes were introduced by the Ottoman rulers when they initiated registration of tribal property in the name of the "Shaykhs." The system of title registration was continued during the British occupation, and by giving "recognition and support" for particular tribal leaders the British authorities enhanced the decline of tribal organization. With "pacification of the countryside and the recognition and wealth which the central government provided for the incumbent Shaykhs," the authority of tribal leaders was undermined. The situation in El Shabana and Daghara region was different and somewhat exceptional to the general trend. The authority of the Shaykh of Elshabana and the tribal organization was sustained until a "transition of authority from traditional leaders to a national entity" was made possible by "the increasing involvement of the central government in managing irrigation." Ferena concludes that "civil servant effendis . . . who have technical knowledge and who carry out their tasks with honesty and with regard for local standards of justice, provide in effect the growing edge of a positive involvement and interest in a very fundamental local level."

The implication of this case study is that changes in tribal organizations and decline of tribal authority can be effected by following different lines of action. In the case of southern Iraq, local authority was undermined by the introduction of ownership registration and provision of wealth and recognition to tribal leaders by the central government. Tribal

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65. Robert A. Ferena, Shaykh and Effendi: Changing Patterns of Authority Among the Elshabana of Southern Iraq (Harvard University Press, Cambridge, Mass., 1970).

leaders eventually developed other interests outside their locality, even moving to the cities and becoming absentee owners. Such were the results of the policies adopted by the British and Ottoman rulers of Iraq. On the other hand, as illustrated in the Elshabana region, by means of positive involvement in local development efforts the "effendi" was able to gain the confidence of the local population and to demonstrate the concern and the technical capabilities that could be provided to the local population by the national government.

The four case studies outlined above illustrate how approaches to development of nomadic areas and irrigated agriculture can vary, even though certain similarities exist in resources and in the traditional ways of nomadic or semi-nomadic life. The relevance of some of these approaches to the situation in the Awash Valley will be further clarified in the next chapter.

V. PROPOSALS FOR LAND TENURE, LAND-USE, AND DEVELOPMENT IN THE AWASH VALLEY

In the course of the discussion a number of problems have been identified. Some of these problems need urgent attention and solution; others require time to be solved, but preparations should start now so as to facilitate the development of the region and meet the nation's development objectives of increased production, increased employment, and a more equitable distribution of the benefits of development. There are basically three issues which require immediate attention: land tenure and ownership; land-use and development; and organizational and institutional issues.

A. Land Tenure and Ownership

The problems identified involve: (1) the question of compensation for alienated grazing lands; (2) ownership of cultivated areas by resident farmers, leaseholders, and contractors in the Lower Valley; (3) ownership of state land; (4) ownership of grazing areas.

1. Compensation for Alienated Grazing Lands: Compensation to be provided for pastoralists who have been alienated from their traditional grazing areas has already been initiated in the Upper, Middle, and Lower Valleys. The mode of compensation under negotiation is either the allocation of alternative grazing land, or the settlement or development of improved pasture. Locating unclaimed grazing land has not yet been possible in the Upper and Lower Valleys but if the search is intensified and appropriate measures are taken, such as adjudication of claims, it should be possible to find land for allocation. In the wake of the severe droughts of the past years, however, there are water and pasture shortages in all the pastoral areas and government assistance will be required to make watering points available in at least parts of the dry-season grazing areas. AVA's

pilot schemes in irrigated pasture and range management in the Middle Valley should also be accelerated and be made available to the pastoralists. The Boyahle area in the Lower Valley, which is claimed by AVA to have been reserved for irrigated pasture settlement and which is also claimed by the Sultan for settlement of 400 Afars, should be reviewed by a committee possibly composed of representatives from the AVA, the district administration, the Sultan's office, and the Ministry of Interior. If the area is allocated either for settlement or for improved pasture for the Afars, organizational and technical assistance from AVA would still be required. But in order to establish a sound program procedures have to be worked out so as to arrive at decisions which would be mutually acceptable to AVA, the Sultan, and the Afar population. AVA's estimated requirement for grazing land is about 5,000 has. and the Boyahle area under dispute is only 1,000 has. Additional land amounting to about 4,000 has. will be needed to meet the grazing requirements of the Lower Valley and until the existing differences between AVA and the Sultan of Aussa are settled it will be difficult to meet these requirements.

2. Ownership of Cultivated Areas by Resident Farmers: In both the old Aussa delta and the newly developed areas between Dubti and the delta the existence of resident small farmers with ownership rights has been recognized. Also, clan ownership by khida members and the leasing of farms by members to large farmers or malaks have been identified. Surveys also indicate a concentration of land control in the hands of a very few tribal and clan leaders. In the absence of records of holdings, the most appropriate steps that should be taken immediately are the adjudication and registration of claims together with a study of the tenure situation.

Pending the accurate recording of claims and detailed studies of the tenurial situations some tentative proposals could be put forward. As a first alternative, the idea of bestowing individual ownership on existing holders of cultivated land or claimants of individual ownership might be entertained. Such a step would be analogous to the policies adopted by the Ottoman rulers and the British authorities in Iraq in that wealth and recognition would be bestowed on the leaders of the traditional society, thereby facilitating their alignment with the central government. Parallel to this, proposals could be made to register the holdings of the khida members, in the name either of the khidu aba (clan leader) or of the group. The mechanism adopted for group registration in Kenya involving the election of group representatives, group committees, and the drawing up of a constitution could also be adopted if it could be made comprehensible to the members of the khida. Group registration could also be extended to claimants of grazing rights in the Lower Valley. If ownership rights are recognized for the leaders and group holders, recognition of the rights of smallholders in the delta area would follow automatically.

Another alternative is the one which favors AVA's position as the sole legal owner of land and water rights and with AVA leasing land either under the terms and conditions adopted for concessionaires or under tenancy conditions adopted for small settlers. The acceptance of such an approach by the Afar farmers who have already started to realize the benefits of private control of land is seriously doubted. AVA's position as concerns land ownership and control in already developed parts of the valley appears

to be weak. But AVA could use its water rights to control development in the already reclaimed areas by enforcing water rates which would make possible the recovery of costs of physical infrastructure such as dams and canals as well as costs of settlement and improved pasture to be undertaken for the benefit of the Afar population.

A third alternative proposal would involve working out a ceiling and a floor for size of holdings in irrigated agriculture. Putting a ceiling on size of holdings would be advantageous in that it would discourage concentration of property in the hands of a few, and would release surplus land for distribution to the dislocated and landless Afars. Enforcement of a minimum size would also be useful to stop fragmentation. Arriving at an acceptable ceiling may pose certain problems, but in the light of the extreme concentration of property in the Lower Valley the third alternative deserves careful consideration and elaboration. This is a task which would require a brain trust not individual whims.

The ownership issue also involves leases and contracts. Regulations governing rents and conditions of lease have to be worked out in a land tenure and/or water use legislation for the Awash Valley.

3. Ownership of State Land: Steps should be taken to demarcate and register all government land in the valley. This could be undertaken together with land-use zoning. The pre-feasibility surveys and the feasibility studies carried out for the AVA have made available sufficient material which would be useful to prepare land-use zoning legislation. Land-use zoning should enable the identification and demarcation of the following categories: (1) dry-farming zones; (2) watershed protection zones; (3) public state property, including wildlife reserves and sanctuaries, riparian belt, forest lands, public centers, and services (village, town, road, etc.); (4) private state property, including all land for development (irrigated agriculture, livestock ranching, etc.); (5) communal grazing areas (both dry-season and wet-season); and (6) private lands (irrigated). If land-use zoning is carefully designed and established both physically and legally it would provide an appropriate mechanism to handle claims and would facilitate development efforts.

4. Ownership of Grazing Areas: Once the broad land-use zones are identified, demarcated, and physically and legally fixed, the next task would be the identification, adjudication, demarcation, and registration of tribal and clan grazing zones. Such a task would require time and resources. But immediate steps can be taken in areas where compensation for alienated grazing lands has to be effected. These areas could serve as pilot schemes where appropriate mechanisms, procedures, and institutions could be evolved. Here the group ranch approach adopted in Kenya, the communally owned and government controlled range management approach, or other approaches could be tested and adopted in order to improve the living standards of the pastoralists and provide opportunities for participation in the production of improved livestock and livestock products.

B. Land-Use and Development

The need for land-use zoning and for the formulation of appropriate legislation has been shown in the section on ownership of state land. Here, proposals in the issue of development as it relates to settlement, commercial agriculture, and livestock raising will be indicated.

1. Settlement: The settlement projects undertaken by AVA since 1966 involved only 86 settlers, but AVA has spent a total of over $Eth. 2 million between 1966 and 1970. The settlement projects at Amibara and Dubti were experimental and now that enough experiments have been made it is necessary to speed up settlement. The pilot schemes were capital intensive, dependent on tractor farming. Settlers were involved only in weeding and picking cotton. If the national strategy of employment creation is to be adhered to, more labor-intensive schemes have to be launched. Projections for the next five years indicate 1,200 new settlers. In the light of past performance this may appear ambitious but if new approaches are adopted, perhaps along the lines taken by the Sultan of Awsa who claims to have registered 400 settlers and developed some 300 has. in two years, the AVA, with its organization and capabilities, could do better.

The settlement activities should be geared to benefit a wider segment of the population in the valley. A combination of land improvement and settlement in the watershed regions and on the banks of some of the major tributaries such as the Awadi, Robi, Jewuha, and Ataye should also be undertaken. Land deterioration, overpopulation, crop failures, drought, and food shortages have affected a large segment of the population in the watershed regions. Land improvement projects including the construction of small embankments, terracing, and forestation should be started in the watershed regions of the valley in order to improve production, to restore the ecological balance, and to provide employment to a greater number of people.

2. Commercial Agriculture: To meet its requirements for domestic consumption, raw material for industries, and increasing its exports, Ethiopia had given priority to the promotion of the commercial agricultural sector in the Third Five-Year Plan (1968-73). Ethiopia's requirements today are similar to those of five years ago. Even though a shift has been made to emphasize small-farmer production in the allocation of public funds, commercial agriculture is still important and will remain so for some time to come. In the AVA, commercial-farm production by concessionaires was dominant in the past. Employment creation is a central issue in the national strategy for development and commercial agriculture in the valley should be geared toward the creation not only of employment but also of a more equitable distribution of income. To do this new approaches will be necessary. Attempts should be made to work out projects and procedures which would allow the direct participation of farmers in the production effort. The partnership arrangements that have worked successfully for so long in the Sudan provide a good example of how small farmers might be incorporated into an agricultural enterprise which puts a premium on production without sacrificing equitable distribution of benefits.

3. Livestock Raising: Ethiopia has too many animals and its pasture lands are overgrazed. Improvement of the quality through disease control, proper animal husbandry, control of quality, marketing arrangements, etc., is the desired goal. AVA should therefore contribute substantially to quality improvement by providing not only such basic needs as adequate pasture and water, but also such additional services as veterinary services, marketing, etc. It would also be proper to consider the introduction of livestock-based secondary activities, e.g., processing of livestock products in the Awash Valley.

C. Organizational and Institutional Issues

The need for a restructured organization has been pointed out in the main body of the paper. Here some possible lines of action will be proposed concerning: board membership, management in the head office, regional offices, and advisory committees.

1. Board Membership: The Board should be reorganized so as to permit representation of all public agencies concerned with the development of the valley. The chairman of the board should be a Minister so that AVA could have direct access to the Council of Ministers. Board membership should include representatives from such agencies as the Ministry of Land Reform, Ministry of National Community Development, and from independent agencies concerned with public works and public services. A useful procedure which could be considered at this level is the creation of an Advisory Committee in which bodies directly involved in the development of the valley would be included. Membership of the Advisory Committee may consist of representatives of the Afar population (possibly H. E. the Sultan), of the concessionaires, small irrigation farmers, and small farmer representatives from rainlands. This mechanism could be useful to bring the proposals and grievances of individuals, groups, and the population at large to the board room.

2. Management in the Head Office: Limited knowledge about the internal structure of the AVA does not permit making at present a specific proposal in the restructuring of the office. It seems, however, that in addition, strengthening alignment of departmental functions to meet the requirements of the regional offices would be useful.

3. Regional Offices and Advisory Committees: The establishment of three regional offices appears to be appropriate: (1) watershed protection and development office (which could be quartered in Addis or close to an area requiring watershed protection and development); (2) Middle Valley development office (with headquarters in the Middle Valley); and (3) Lower Valley development office. A nucleus of some of these may already exist but strengthening of these offices will be required and more decision-making and implementation of policies and projects will have to be carried out in the respective regions. To these offices, Advisory Councils or Committees should be attached and procedures adopted following the approaches of the offices to be set up for integrated development at Awraja and Woreda levels. The procedures should be designed to provide an adequate framework for the participation of all groups involved in the development of the valley.

CONCLUSION

The concluding remarks will be very brief since most of the relevant issues and the possible lines of action have been raised in the preceding section dealing with proposals. Issues related to taxation and water rates were either not raised or mentioned in passing. This does not imply that they are insignificant but rather too important to be dispensed with in a paragraph or two. Fortunately, appropriate organizations and institutions are now in operation handling the complex issues of taxation and water rights and use. Here it would suffice to indicate that the enactment of the Draft Water Law prepared by the Water Resources Commission (in which AVA is represented) should be expedited and put in operation as soon as possible. Clauses relating to water rights, use, rates, etc., should be included in the land tenure and land-use legislation proposed above. Also, the Ministry of Finance will have to extend its tax collection services to the Awash Valley in order to make a timely recovery of public funds invested on dams and other physical infrastructure and to generate additional funds for extending social and other services to the region.

Ethiopia's total irrigable area is estimated at 3.5 million hectares and most of these irrigable lands are situated in regions which have similarities to the Awash Valley. These areas are presently occupied by pastoralists who follow a migratory grazing pattern of existence. Ownership of land is vested in the state by the national constitution but potential claimants of individual or group rights also exist. These areas will soon be opened for development. Policies to be adopted on land tenure and land-use in the Awash Valley and the institutions and procedures to be formulated will establish certain precedents for these regions. In fact, the Awash Valley could be regarded as a pilot scheme where experiments are being carried out with a view to using the results in other areas. The organizational and institutional issues raised and the proposals made will, therefore, demand further and deeper scrutinty before they are translated into action.

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