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**URBAN DEVELOPMENT ASSESSMENT  
OF MOGADISHU, SOMALIA**

**OCTOBER 1983**

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## **PREFACE**

This report is based on a two week visit to Mogadishu by Alfred P. Van Huyck and Margaret Sperling of PADCO at the request of the Mayor of Mogadishu. The mission was supported by the East Africa RHUDO of the Office of Housing and Urban Development, Agency for International Development.

During the assignment a three day seminar was held for city officials and others to discuss the problems and opportunities of urbanization in Somalia with special reference to Mogadishu. The team wishes to thank the Mayor of Mogadishu and his staff for the courtesy and hospitality provided as well as the candor and openness with which the discussions were held. The team particularly thanks Mr. Abdi Yusuf Dualeh, General Manager of the Banadir Dairy Project, for his participation in the work. His guidance and thoughtful contributions were of major importance to the work of the team.

In addition Mr. David Benson of the EA/RHUDO participated in the first week of the mission and assisted in shaping the directions of the program.

This assignment was largely exploratory in that it was designed to ascertain information about urbanization in Somalia, the particular problems and opportunities confronting the City of Mogadishu, and to make suggestions for appropriate next steps.

## INTRODUCTION AND SUMMARY

This report like all other reports prepared on Somalia suffers from the lack of a fully developed data base. The Government is well aware of the data base problems in the country and has proposed additional support for essential studies in the present Five Year Plan 1982 - 1986. Nonetheless, the data base limitations while frustrating the kinds of analysis which might otherwise be done still provides enough information to suggest appropriate steps for future work.

Almost all studies and reports on Somalia start with the basic statements that 80 percent of the population depends on agriculture and livestock for its livelihood. Livestock is the most important agriculture sector as it provides 60 percent of employment, and 50 percent of GDP, and over 80 percent of export earnings. Crop production is next most important as it is the livelihood for 20 percent of the population and provides 8 percent of GDP. Fishing is recognized as the most undeveloped agricultural sector with growth potential. Fishing currently provides 2 percent of GDP.

The 1975 Census estimated that approximately 59 percent of the population were classified as nomadic, 22 percent were occupied in settled farming, and 19 percent were occupied in non-agricultural activities (presumably mainly in urban areas).

Not surprisingly, given the presumed rural/agricultural dominance in Somalia the attention of international donors (which provide the majority of the domestic capital investment funds) and the Government have focused their efforts primarily on agricultural development and services for rural populations.

### A. THE ROLE OF URBANIZATION IN SOMALIA

This report, while underscoring the obvious importance of agriculture and rural development, will nonetheless argue that a more balanced development strategy which recognizes the growing importance of urbanization is essential. This argument is based on several significant facts and trends which have gone relatively unnoticed in Somalia:

1. Urban areas and particularly Mogadishu are growing at very rapid rates (perhaps 9 percent per year in the Capital City and between four and five percent per year in the secondary cities). This rapid urbanization suggests that by the Year 2000 as much as 45-50 percent of the total population will be urban in Somalia.
2. The present urban economic base of the nation is extremely weak. There is very little industrial development overall and the sector has been in decline for the last four or five years (though there is some evidence to suggest this trend is reversing with the new emphasis on private sector

initiative). Non-agricultural exports are practically non-existent. This situation must be addressed in future development efforts.

3. Fragmentary evidence suggests that urban per capita GDP is significantly higher than rural per capita GDP, but a substantial share (perhaps 40 percent) is in the form of remittance money from Somali workers abroad which is circulating in the urban areas. This has the effect of stimulating the trading and services sectors of the urban economy. However, there appears to be a general slowing of worker emigration abroad and future increases in capital inflows from this source appear uncertain. Therefore, it is likely that these sectors cannot by themselves absorb the essential growth in urban job creation.
4. The present municipal financial base of Mogadishu and secondary cities is inadequate to cope with the increasing demands for services; if urban growth continues this situation will get worse unless addressed. All cities, while appearing statistically to be better off than the rural areas, are, nonetheless, facing serious deficits in all categories of infrastructure.
5. In the absence of significant economic opportunities in the secondary cities of Somalia, it seems highly probable that Mogadishu will continue to be the primary destination of rural to urban migration. The city is likely to have 22 percent of the entire national population by 1990 and 26 percent by the year 2000. This means a total population of over 2 million by the year 2000.
6. While there are important and essential gains to be made in agricultural production for domestic consumption and export, it is not likely that agricultural development and livestock alone can meet the minimum essential gains in the standard of living required for the Somali people. Furthermore, the role of urban centered activities required to support agricultural development needs to be recognized in overall planning. The essential role of urban centers as markets, storage areas, transportation services, ports, and as the locale for commercial fishing all underscore the need for a more balanced development strategy.
7. The unique qualities of the Somali extended family should be considered a major factor in the national development strategy. The basic evidence suggests that the Somali family shares the risks and opportunities amongst family members. This seems to mean that urban based families have a close interaction with their rural based family members. They share income. They provide an urban base for family members on extended visits either looking to take advantage of urban services such as health and education or to look for jobs during the off-season in agriculture. Food and animal products produced in rural areas are sent to urban family members.

## B. PRIORITIES AND AREAS FOR FURTHER INVESTIGATION

It is beyond the scope of this report to prescribe the specific urban development strategy appropriate for Somalia. Nonetheless, the major priorities and areas for further investigation can be identified. Among the most important are the following:

1. Action is required to stimulate the urban economy to provide the basis for productive job generation for the growing urban population. The private sector will have to be the major generator of the required jobs and economic activity. The public sector has been particularly unproductive and inefficient in the industrial sector. The policy of providing government jobs for all school leavers is being abandoned as it is expensive and unproductive, but this will add to the urgency to create productive private sector urban jobs.

The logical starting point for stimulating private sector job generation is to carefully review the role of urban centers in stimulating the agricultural development efforts of the nation. Second, the national locational advantage of Somalia within the world should be considered for opportunities for non-traditional exports to the Gulf States, Europe, and Asia. Possibly assembly work opportunities exist which could be stimulated with "duty free zones."

2. The national urban settlement system should be reviewed to identify growth opportunities outside of Mogadishu. There are not enough resources to attempt to develop more than a few urban centers as a priority. The urban centers which should be studied in more detail would include:
  - Kismayo as the main port in the south with a defined rural hinterland.
  - Baidoa which is the urban center servicing the inter-riverine area, a region of significant agricultural development.
  - Hargeisa, Berbera, and Burao which form the urban structure serving the Northwest agricultural region.

The Government has essentially only two basic instruments to effect the development of secondary cities: public investment in infrastructure and facilities (but it must be recognized that investment capital will be limited in the future); and the pricing mechanism for public land, user charges, and taxes. The latter instrument could be applied to reduce the attractiveness of Mogadishu in comparison with other secondary cities. In fact, it will be extremely difficult to stimulate development in alternative urban centers without increasing the cost of residing in Mogadishu in relationship to other urban centers.

3. A Mogadishu development strategy should be established. Mogadishu will continue to grow. It is a national city and must be thought of as such. The pending Mogadishu Master Plan study, if revised along the lines suggested in this report, should be of value in this regard. However, the plan alone will not solve the development needs of the city and to consider Afgoi and Balad as part of a metropolitan region. There is an urgent need to reorganize the Mogadishu land development process on the east and west edges of the city. The municipal financial structure of the city needs revision in order to increase the mobilization of local revenues, increase cost recovery for urban services provided, and improve city budgeting. It will be essential to provide urban infrastructure, particularly water and electricity, to the expanding urban population. The World Bank urban water project is a start, but an ongoing, largely self-financing system will be required.
4. The unique qualities of the Somali extended family should be recognized in the overall development effort. In Somalia it is possible to create economic opportunity anywhere within the nation (rural or urban) based on efficiency criteria and productivity because it is clear that the people will migrate to the economic opportunity and share the benefits equitably amongst family members. This is a very significant advantage in development planning in Somalia because investment can be made on the basis of economic criteria rather than trying to meet the needs of the population where they presently live.

## CHAPTER I

### POPULATION AND URBANIZATION

The first census in Somalia was taken in 1975 and the results have never been fully published. The summary data is presented in Table I-1 by region and by the three basic categories--nomadic, settled farming, and non-agricultural. The government believes that the census under-counted the total population by approximately 700,000, but there is no way to verify these numbers. A new census is scheduled for 1985 which should greatly assist in clarifying the national demographic picture.

The 1975 census is not considered entirely accurate, and it is not possible to do time series comparisons with the previous census, therefore, making population projections extremely speculative. The rate of total natural increase is also unknown with estimates ranging from 2.3 percent to 3.0 percent annually.

None of the population estimates include the impact of the refugees now living in Somalia. There is considerable dispute over how many refugees are in the country. Some estimates suggest that there are 2 million persons in Somalia which have migrated in as refugees. Most observers do agree that the number of refugees in the camps are declining as the refugees move out and become absorbed into the national settlement system. The future of the refugees in Somalia will make an enormous difference in the eventual demographics. If the refugees do not return to Ethiopia but remain in Somalia, it could add to national growth by 20-25 percent.

#### A. REGIONS AND LARGEST URBAN AREAS

The most frequently cited regional population figures come from the 1975 census. For each region, the population is categorized as non-agricultural, settled farming or nomadic. In Somalia these subdivisions are not strictly equivalent to urban (for the first category) or rural (for the latter two categories). Nevertheless, the non-agricultural population provides an indicator of the degree of urbanization of each region and, in aggregate, of the country. These figures, when compared with those in Table I-1, would imply an urban area agricultural population of about 10 percent of the population. The relevant figures for non-agricultural population are shown in Table I-2.

None of the regions, other than Mogadishu, are heavily urbanized (using non-agricultural population as the indicator). Significantly, however, three of the four most urbanized regions are those with greatest proximity to Mogadishu--Middle and Lower Shebelli and the Bay Region. The fourth is West Galbeed, adjacent to Djibouti and facing the Gulf of Aden, with the port of Berbera and Hargeisa.

TABLE I-1  
SOMALIA: NOMADIC, SETTLED FARMING AND NON-AGRICULTURAL  
POPULATION BY REGION, 1975  
(Thousands)

	<u>Total</u>		<u>Nomadic</u>		<u>Settled Farming</u>		<u>Non-Agriculture</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
<u>North-West</u>	<u>698</u>	<u>18.7</u>	<u>469</u>	<u>12.6</u>	<u>160</u>	<u>4.3</u>	<u>69</u>	<u>1.9</u>
W. Galbeed	440	11.8	271	7.3	118	3.2	51	1.4
Togdheer	258	6.9	198	5.3	42	1.1	18	0.5
<u>North-East</u>	<u>386</u>	<u>10.4</u>	<u>295</u>	<u>7.9</u>	<u>64</u>	<u>1.7</u>	<u>27</u>	<u>0.7</u>
Sannag	145	3.9	113	3.0	22	0.6	10	0.3
Bari	154	4.2	116	3.1	27	0.7	11	0.3
Hugal	87	2.3	66	1.8	15	0.4	6	0.1
<u>Central</u>	<u>397</u>	<u>10.7</u>	<u>289</u>	<u>7.8</u>	<u>76</u>	<u>2.0</u>	<u>32</u>	<u>0.8</u>
Hudug	215	5.8	170	4.6	32	0.8	13	0.3
Calguduud	182	4.9	119	3.2	44	1.2	19	0.5
<u>Shebelle River</u>	<u>1188</u>	<u>31.9</u>	<u>475</u>	<u>12.8</u>	<u>233</u>	<u>6.3</u>	<u>480</u>	<u>12.9</u>
Hiran	147	3.9	116	3.1	22	0.6	9	0.2
Middle Shebelle	263	7.1	166	4.5	68	1.8	29	0.8
Lower Shebelle	398	10.7	193	5.2	143	3.9	62	1.7
Mogadishu	380	10.2	-	-	-	-	380	10.2
<u>Juba River</u>	<u>651</u>	<u>17.5</u>	<u>477</u>	<u>12.8</u>	<u>122</u>	<u>3.3</u>	<u>52</u>	<u>1.4</u>
Cedo	212	5.7	181	4.8	22	0.6	9	0.3
Middle Juba	216	5.8	141	3.8	52	1.4	23	0.6
Lower Juba	223	6.0	155	4.2	48	1.3	20	0.5
<u>Inter-Riverine</u>	<u>402</u>	<u>10.8</u>	<u>179</u>	<u>4.8</u>	<u>156</u>	<u>4.2</u>	<u>67</u>	<u>1.8</u>
Bakool	100	2.7	79	2.1	15	0.4	6	0.2
Bay	302	8.1	100	2.7	141	3.8	61	1.6
<u>TOTAL</u>	<u>3722</u>	<u>100.0</u>	<u>2184</u>	<u>58.7</u>	<u>811</u>	<u>21.8</u>	<u>727</u>	<u>19.5</u>

Source: Ministry of Planning, Three-Year Plan, 1979-81.

Note: The figures for population given in this table are rough and tentative. According to the Three-Year Plan (1979-1981), the number of people is not known precisely as the census was taken in 1975 at the height of the worst drought ever recorded. Many people, especially nomads, were moving in search of food and water and accurate enumeration could not be obtained under such circumstances. Even at this stage, full details of the 1975 census data remain unpublished. Somali authorities now claim that there was under-enumeration of 150,000 households, accounting for about 700,000 people, during the 1975 census.

TABLE I-2  
NON-AGRICULTURAL POPULATION BY REGION, 1975  
(in thousands)

<u>Region</u>	<u>Non-Agricultural Population</u>	<u>As a Percent of Regional Population</u>	<u>As a Percent of Total Non- Agricultural Population</u>	<u>As a Percent of Total Population</u>
Mogadishu	380	100.0	52.3	10.2
Lower Shebelli	62	15.6	8.5	1.7
Bay	61	20.2	8.4	1.6
West Galbeed	51	11.6	7.0	1.4
Middle Shebelli	29	11.0	4.0	0.8
Middle Juba	23	10.6	3.2	0.6
Lower Juba	20	9.0	2.8	0.5
Galgadund	19	10.4	2.6	0.5
Logdheer	18	7.0	2.5	0.5
Mudug	13	6.0	1.8	0.3
Bari	11	7.1	1.5	0.3
Sannag	10	6.9	1.4	0.3
Hiran	9	6.1	1.2	0.2
Gedo	9	4.2	1.2	0.2
Nugal	6	6.9	0.8	0.2
Bakool	6	6.0	0.8	0.2
TOTAL	727		100.0	19.5

Source: Ministry of Planning, Three-Year Plan, 1979-81

TABLE I-3  
SOMALIA'S LARGEST URBAN CITIES  
1975  
(in thousands)

<u>Urban Area</u>	<u>Population</u>	<u>Regional Non-Agricultural Population</u>	<u>Ratio of Urban to Regional Non-Agricultural Population</u>
Mogadishu	446	380	1.17
Hargeisa	63	51	1.24
Burao	37	18	2.06
Baidoa	31	61	0.51
Kismayo	30	20	1.50
Merca	22	62	0.35
Jowhar	20	29	0.68
Belet Wein	15	9	1.67
	664	630	1.05

Source: Clark University with Analysis by PADCO.

Data on the eight largest urban areas in the country is available through the Clark University Study. This study reports 1975 urban population for the eight largest cities and cites the Central Statistics Department as the source. The data is anomalous because it exceeds reported total regional non-agricultural population in five of the eight cases. The figures as reported by Clark University and their ratio to regional non-agricultural population are shown in Table I-3.

Mogadishu clearly dominates the urban hierarchy in Somalia, being over seven times larger than Hargeisa, the second largest city, and over three times larger than the combined population of the next three largest cities. Mogadishu's population is two-thirds of the reported urban population of the eight largest cities.

## B. FERTILITY AND MORTALITY<sup>1</sup>

There was a study of 7,219 settled households of which over half lived in Mogadishu taken in October 1980. It estimates the Somalia birth rate at 49 and the death rate at 20. The age sex distribution was:

50 years plus:	Males 5.1 percent and females 5.5 percent
20-50 years:	Males 15.8 percent and females 17.5 percent
under 20:	Males 28.1 percent and females 27.9 percent
Totals:	Males 49.1 percent and females 50.9 percent
Total under 20:	56 percent

The average age at marriage was 26.4 years for men and 20.3 years for women. Approximately 95 percent of the men and virtually all women get married.

The average number of children born per woman is 7.1.

The survey established implied birth rates of: 44.6 in rural areas, 48.6 in Mogadishu, and 50.3 in other urban areas. Infant mortality was estimated at 181 in rural areas, 162 in other urban areas, and 147 in Mogadishu.

The labor force was estimated as 80 percent of all males between 20-50 years old and 30 percent of all women between 20-50 years old.

Rates of natural increase were calculated at three percent in Mogadishu and 2.7 percent in other areas.

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<sup>1</sup>THE 1980-1981 Somalia Fertility and Mortality Survey: Benadir, Bey, Lower Shebelle, A Summary of Results; POPLAB, University of North Carolina, December 1981

### C. SPECULATIVE POPULATION ESTIMATES AND LAND USE

The World Bank conducted an agricultural sector study in 1981 (Somalia Agricultural Sector Review, Volume 1, Main Report June 29, 1981). This study contains an interesting speculative exercise on the potential land use and population location distribution which might be achieved by the year 2000. It is particularly important from the point of view of defining the likely range of the urban population under the most favorable scenario for agricultural development. See Table I-4.

The study estimates that 26.6 million hectares of land in Somalia are unusable for agriculture or grazing. Some 28.8 million hectares could be used for grazing and 8.2 million hectares could be used for cropping. Presently .7 million hectares are cropped and another 2.0 million could be cropped if the necessary infrastructure and social facilities were available. The remaining 5.5 million hectares could be cropped if the infrastructure and social facilities were provided along with basic environmental enhancement.

The study goes on to conclude that the nomadic population in Somalia should not be increased on the land available for grazing until the range land is upgraded. They, therefore, conclude that the one million additional population expected amongst the nomadic population between 1980 and 2000 should be accommodated elsewhere.

The cropped land is divided presently between 540,000 hectares in dryland agriculture which supports 600,000 people and 160,000 hectares of irrigated land which supports 215,000 people. The study concludes that all increases in production from the dryland agriculture should go toward improving the incomes of this present population, and the expected 480,000 additional population generated from natural increase amongst the present dryland farm households should also be accommodated elsewhere.

The irrigated land area of 160,000 hectares presently could support the natural increase of the present population of 215,000 with improvement and rehabilitation, but no in-migration of additional population.

The study then sets out what might be called the "best case" scenario for keeping this population growth in rural areas.

TABLE I-4  
ESTIMATED YEAR 2000 POPULATION DISTRIBUTION  
BY ECONOMIC ACTIVITY  
SETTLED FARMING

Year	Total	NOMADS		Dryland		Irrigated		Fishing		Non-Agricultural	
1980	4,200	2,400	57%	.600	14%	.215	5%	.085	2%	.900	21%
2000	7,600	2,400	32%	1.425	19%	.465	6%	.710	9%	2.600	34%
Annual Rate of Growth	3%	-0-		4.42%		3.93%		11.20%		5.45%	

Source: Agricultural Sector Review, Volume I, Main Report, World Bank, June 29, 1981  
Analysis of projected growth rates by PADCO

The study estimates that it might be feasible to develop an additional 750,000 hectares in new dryland farming area. If this were achieved, it would support 825,000 people by the year 2000 and provide a per capita income of US\$308 in constant 1983 dollars. The study projects the possibility of providing 200,000 hectares of new irrigated land by the year 2000 which, if divided into two hectare farm parcels per family, could accommodate 600,000 persons with a per capita annual income of US\$700 in constant 1983 dollars. A total of 710,000 people could be located in fishing activities according to the study. The balance would migrate to urban areas.

Under this best case scenario, the study concludes that the urban (non-agricultural) population will reach 2.6 million by the year 2000.

The capital investment costs of attempting to achieve these population distribution objectives are very high. The study estimates that it will cost (in 1979 constant dollars):

- US\$300 per hectare for the rehabilitation of the dryland farming area. This is a total requirement of \$162 million for rehabilitation.
- US\$600 per hectare for each new unit brought into dryland farming production.

This would total \$630 million by the year 2000, and does not include off farm investments in infrastructure and social facilities for the population.

- US\$4,200 per hectare for the rehabilitation of existing irrigated land. This is a total of \$672 million for irrigated area rehabilitation.
- US\$10,500 per hectare for each new unit of irrigated land brought into production.

This is a total of \$2.1 billion for irrigation.

- US\$7,000 per household for each family supported by fishing. This would mean capital costs of \$828 million.

The total package for agricultural development would be US\$4.4 billion, not including related infrastructure and social facilities. This level of investment is unlikely to be mobilized in the 20-year time frame.

#### D. THE POTENTIAL IMPACT ON URBANIZATION

The study estimates that the non-agricultural or urban population in the year 2000 will be 2.6 million persons if the full program of agricultural development is achieved. Since the natural increase of the total Somalia population is likely to occur at or near the 3 percent rate used in the projections (resulting in a year 2000 total population of 7.6 million), then it can be assumed that, if the capital investment levels and implied policies of the sector study are not achieved, the urban population will be higher than 2.6 million or the standard of living of the rural population will be lower.

The study does not claim that this speculative scenario is likely to happen and in fact inserts many caveats which indicate an appreciation of the difficulties of trying to achieve it in the short time span of 20 years given the enormous constraints. Therefore, the following comments are not made as a criticism of the World Bank work which was clearly useful in defining the parameters of future rural/urban population split, but rather to suggest that it is likely that the urban centers of Somalia will have to expect to accommodate more than the minimum estimate of 2.6 million by the year 2000.

The study suggests that the fishing industry can accommodate a total of 710,000 persons by the year 2000. Several other studies have documented that fishing is an industry of promise in Somalia and the World Bank already has a pilot project underway in this sector. Other commercial fishing agreements are in the discussion stage and the new Five Year Plan 1982-1986 is likely to support investment in the fishing sector. Nonetheless, it is likely that much of the population ultimately supported by the fishing industry is going to be located in urban centers. It is hard to conceive that a fishing sector growth rate of approximately 11 percent per year over the 20 year period could be based in artisan fishing communities. The more likely scenario is that key urban port centers will be the location for the fishing industry and, therefore, even if the 710,000 persons supported by fishing activities materialize, most of this population will be in urban centers and thus add to the urban population.

The one million population generated through the natural increase of the nomadic population, which the study suggests must be accommodated elsewhere is not likely to find its way into dryland farming. The study points out that world experience has found that nomadic peoples have traditionally resisted conversion into settled farming areas. This has been the experience with the refugees in Somalia already. In fact, almost all persons interviewed and several other studies suggest that the nomadic population in Somalia is a major source of urban migration. Given the choice between dryland farming settlements and urban centers, the nomadic peoples are much more likely to choose urban centers.<sup>2</sup>

The World Bank study also points out that much of the potential new dryland farming areas are suitable for large-scale mechanized farming activities. Given the emergence of a stronger, new private sector agricultural climate in Somalia and the current reinvestment occurring in agriculture since the change of pricing policies, it seems likely that a part of that investment will flow into mechanized dryland farming activities. Therefore, less population will be accommodated even if the overall land development assumptions become reality.

The same point can be made with regard to the concept of the two hectare farm on new irrigated lands. It is very unlikely that this small holding concept will be realized in the present investment climate. In fact, there appears to be fragmentary evidence that corporations and private partnerships are moving into the existing irrigated farming area and assembling larger parcels suitable for more intensive mechanization. If this trend develops it might lead to the reduction of farm families supported by the present irrigated land.

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<sup>2</sup>The Boston University study also recognizes the transition in rural areas to more commercialized larger-scale private agricultural investments and its potential impact on small-scale subsistence farmers. It draws upon its Africa wide experience to stress the difficulties which have been encountered in efforts to settle nomads in crop farming. Somali respondents all noted that it was much more likely for Nomads to settle in cities than on small farms since urban centers have traditionally played a significant role in the nomadic lifestyle.

All of this is further complicated by the fact that land registration in rural areas only dates from 1979. The Boston University study reports that small scale farmers have been reported as being "pushed off" their land holdings by better financed outsiders since land registration started.

Since 1975, it has been reported that 150,000 hectares have been allocated to cooperatives, individuals, and corporations. Approximately 64 percent has been irrigated land. Some 4,683 individuals were leased 57,149 hectares (an average of 12.2 hectares per individual); 148 private companies leased 23,273 hectares (an average of 157.25 hectares per company). Cooperatives with a reported membership of 42,355 persons operated 73,058 hectares (an average of 1.72 hectares per individual).<sup>3</sup>

There is also considerable doubt as to whether or not the potential 200,000 hectares of new irrigated land could possibly be developed during the 20-year period. It would depend on the successful completion of the Bandhere Dam, and it is not likely that this will happen given the overall capital investment resource situation. The World Bank is very doubtful as to the comparative advantage of the Dam given other development priorities in the short term in Somalia.

While there is no doubt that the economic future of Somalia is through agriculture and livestock development, and, therefore, these sectors are high priority for investment, there is a serious question as to whether or not the small farmer concept will indeed prove to be the most viable way to achieve agricultural growth. Insofar as larger-scale mechanization is utilized with lower labor requirements per unit of output, the pressure for urban migration will increase.

The social premise used by the donor community in agriculture in Somalia is that the rural population knows only agricultural work and programs should attempt to maintain the rural population in place. There is considerable evidence, however, that the Somali family system does not lend itself to the conception of the six person "nuclear" family which maintains a given location. There is a very strong sense of "extended family" in Somalia within which the sharing of information, opportunities, and revenues is very strong. The Boston University study calls the Somali family "a multinational enterprise in microcosm". They found that there is a deeply developed knowledge about the national labor market and that families make rational economic decisions in response to the market following wage rates (highly favorable to urban areas at present), that families deliberately spread the economic risks and rewards by seeking to maintain an economic base in urban centers, farming, livestock, and the overseas labor market simultaneously. The high priority placed on education by Somali families also contributes to the urban growth pressure. Many urban households in Mogadishu were reported to be boarding rural family members who have come to the city for educational opportunity.

It is reasonable to conclude from the evidence available that the recent upsurge in urban migration has not been caused primarily from drought conditions in rural areas, but rather has been in response to perceived better economic opportunities in city locations. The recent agricultural pricing policy changes should improve

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<sup>3</sup>These numbers come from "Encouraging The Private Sector In Somalia", AID, Elliot Berg Associates, September 1982.

rural incomes, but probably not to the extent that continued high levels of urban migration are expected.

#### **E. PADCO SPECULATIVE POPULATION ESTIMATES**

PADCO has prepared speculative population estimates based upon the fragmentary demographic data presented in the previous sections of this chapter. The projections include the potential introduction of the refugee population into the national population totals. (Other population estimates have not included provision for this potential, but evidence suggests this process is presently going on as refugees leave camps to become part of the greater population.)

These projections must be considered speculative because of the lack of a firm census data base, and this is true for any projection prepared for Somalia at this time.

The important conclusion of the PADCO projections is that the urban population is likely to be much higher than previous projections have suggested. Furthermore, the population of Mogadishu is likely to reach two million persons by the year 2000 which is also a higher estimate than has been made previously.

It becomes a matter of some urgency, therefore, that policy planners in Somalia and the international donor community revise their views regarding urban growth.

TABLE I-5

PADCO'S SPECULATIVE POPULATION ESTIMATES  
BY REGION AND MAJOR URBAN CENTER  
1990 AND 2000

REGION	POPULATION LOCATION	1975 TOTALS BY REGION	PERCENT	1990 ESTIMATED TOTAL	GROWTH RATE	PERCENT	2000 ESTIMATED TOTAL	GROWTH RATE	PERCENT
Mogadishu	Mogadishu	380	10.2	1,400	9.1	22.1	2,250	4.9	26.8
Shebelli River		845 <sup>1</sup>	21.7	1,241	2.6	20.0	1,635	2.8	19.5
	Nomadic	498		561	.8		607	.8	
	Settled	243		431	3.9		608	3.5	
	Non-AG	104		249	6.0		420	5.3	
	Belet Wein <sup>2</sup>	(20)		60	7.6		90	4.1	
	Jonnar	(20)		40	4.7		70	5.8	
	Balad	(10)		30	7.6		60	7.2	
	AFGOI	(12)		40	8.4		80	7.2	
Merka	(22)		30	2.1		35	1.6		
Juba River		844 <sup>3</sup>	17.5	1,099	1.8	17.4	1,409	2.5	16.8
	Nomadic	630		710	.8		784	.8	
	Settled	150		244	3.3		345	3.5	
	Non-AG	64		145	5.6		280	6.8	
	Jarame <sup>2</sup>	(12)		20	3.5		35	6.0	
	Kiamayo	(33)		80	6.1		150	6.5	
Berdeere	(6)		15	6.0		35	9.0		
Inter-Riverine		402	10.8	638	3.13	10.1	857	3.0	10.2
	Nomadic	179		201	.8		217	.8	
	Settled	156		282	4.0		400	3.6	
	Non-AG	67		155	4.9		240	4.2	
Baidoa <sup>2</sup>	38		112	7.5		180	4.9		
Northwest		698	18.7	994	2.4	15.7	1,302	2.7	15.5
	Nomadic	412		464	.8		502	.8	
	Settled	140		230	3.3		325	3.5	
	Non-AG	146		300	4.9		475	4.7	
	Hargeisa <sup>2</sup>	(63)		140	5.5		225	4.9	
	Berbera	(12)		33	7.0		60	6.0	
Burao	(37)		70	4.3		110	4.5		
Northeast		386	10.4	415	.5	6.6	458	1.0	5.5
	Nomadic	295		313	.4		338	.8	
	Settled	64		68	.4		79	1.5	
	Non-AG	27		34	1.5		41	2.0	
Central		397	10.7	434	.6	6.8	491	1.0	5.7
	Nomadic	289		306	.4		331	.8	
	Settled	76		88	.4		102	1.5	
	Non-AG	32		40	1.5		48	2.0	
SUBTOTAL		3,952	100.0	6,221	3.1	100.0	8,392	3.0	100.0
Refugees	Settled	1,000	-	1,160 <sup>4</sup>	1.0		1,243 <sup>5</sup>	1.0	
TOTAL		4,952		7,381	2.7		9,635	2.7	

1. Assumes 37,000 reportedly undercounted
2. City populations are part of the non-agricultural part of the region
3. Assumes 193,000 reportedly undercounted
4. Assumes 353,000 refugees migrated into settlement system from camps
5. Assumes 153,000 refugees migrated into settlement system from camps

## CHAPTER II

### THE ECONOMY AND URBANIZATION

#### A. AGGREGATE INCOME AND URBANIZATION

Developing a reasonable picture of overall economic variables that relate to urbanization for Somalia is, if anything, even more difficult than for demographic variables. The World Development Report of 1982 gives 1979 GDP for Somalia as \$1130 million (U.S.). Using the same source's total population yields per capita GDP of \$289. A World Bank estimate in 1981 gave per capita GNP of \$280 in 1980. Somalia's Ministry of Planning recently estimated per capita GNP in 1980 in current prices to be \$315. In the remainder of the analysis, the assumption will be made that per capita GNP is within the range of \$280 to \$315 (U.S.) in 1980 dollars.

A recent ILO study estimated urban GDP at market prices to be 8,152 million So.Sh. or \$1,290 in 1980. The Ministry of Planning estimated total GDP at market prices to be 9,917 shillings or \$1,518 (U.S.). Using urban population in 1980 yields an urban GDP per capita of about \$990 compared to the Ministry's overall estimate of about \$300 in GDP per capita. Although these figures are not strictly comparable, for reasons indicated at the beginning of this section, they do suggest substantial potential income differentials between the urban and non-urban Somalia. The ILO estimates were made while the franco valuta system was in effect and were used to highlight the importance of repatriated money to Somalia generally and to urban income in particular. The effect on urban income of the government's effort to eliminate the system is not exactly known but has probably been negative.

An alternative approach to estimating urban/non-urban GDP differences is to partition GDP figures (taken from World Development Report, 1982) on a per employee basis assigning agricultural GDP to non-urban and industry and service GDP to urban workers. These calculations follow:

$$\begin{aligned}
 \text{GDP/Non-urban Employee} &= \text{GDP} \times \frac{\text{Agricultural GDP}}{\text{GDP}} \\
 &\quad \text{divided by Agricultural Workers} \\
 &= \frac{(1,130 \times .6)}{1.72} = \$394 \\
 \\
 \text{GDP/Urban Employee} &= \frac{(\text{GDP} \times \text{Industry} + \text{Service GDP})}{\text{GDP}} \\
 &\quad \text{divided by Industry and Service Workers} \\
 &= \frac{(1,130 \times .4)}{.378} = \$1,196
 \end{aligned}$$

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These figures differ in magnitude from the earlier ones but, like them, suggest about a 3 to 1 per capita GDP differential between urban and non-urban Somalia.<sup>4</sup>

It appears that in Somalia a decision to migrate permanently or temporarily (in an extended family income strategy) from non-urban to urban areas makes sense in terms of the possibility of income gain, although these differentials are not as high as in many developing countries. The Boston University Team reports that:

"Labor migration and permanent migration to towns from the pastoral sector appear to be a response to opportunities for higher incomes, rather than to worsening environmental or economic conditions in pastoral areas."<sup>5</sup>

There is a broader concern, however, for Somalia about the relationship between urbanization and the income growth needed to support it and provide urban services. The demographic data, weak as it is, suggests that urban population growth may well remain over twice that of total population growth.

Somalia probably has about 26-30 percent of its total population in urban areas and a continuation of current rates of urbanization would result by the year 2000 in raising this figure to approximately 50 percent.

It has been established elsewhere that the urbanization level of low and middle income countries is associated with GNP per capita.<sup>6</sup> Using this normal relationship, the urbanization level in Somalia in 1980 should be between 18.4 percent and 20.7 percent using a GNP per capita of \$280 and \$315, respectively. That is to say, that there are already about 430,000 to 530,000 more urban residents than would be expected on the basis of the country's income level.

The GNP per capita that would normally be expected to be achieved by and support the projected 2000 urbanization level of 50 percent would be about \$1,395. To achieve this level would require a real rate of growth in GNP/Capita of between 7.7 and 8.3 percent a year between 1980 and 2000. Unfortunately, Somalia during the decade of the 70s has been barely holding its real level of GNP per capita constant.

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<sup>4</sup>In Somalia, perhaps even more so than in most LDCs, extended family relationships (which Boston University describes as having family income strategies) make it nearly impossible to say how much "urban" income remains in urban areas.

<sup>5</sup>Somalia: "A Social and Institutional Profile", Boston University, March 1983, p.8.

<sup>6</sup>See "African Urban Indicators". The exact relationship is: Urban Percent of Total Population =  $-89.894 + 19.218 \ln(\text{GNP/cap})$ ; derived from 1980 data from the "World Development Report, 1982".

The critical policy dilemma, therefore, is how to make urbanization more productive in terms of the future economic development of Somalia; both to raise income levels generally through the expected continuation of extended family income sharing and also to prevent serious further deterioration in conditions and service levels in the country and its urban centers.

## B. IMPROVING ECONOMIC PERFORMANCE

There are numerous factors which help explain the very slow increase in real income per capita—the loss of Eastern European markets for exports after the expulsion of the Russians in 1977 and a lag in finding new markets; the large absolute and relative size of the expenditure for security during and since the Ethiopian war; recovery from the 1973 to 1975 drought; rapid inflation (see Table II-1), and substantial average declines in value added per employee in public industrial establishments (this attributable, in turn, to loss of markets, excessive expansion of employment, poor management, and operation of large-scale plants at far less than capacity and often at a loss).

Value added per employee in public sector establishments declined from 30.1 thousand So.Sh. in 1970-72 to 13.5 thousand So.Sh. in 1976-78 (in 1970 prices). Because of their dominance as a percentage of all industry, total value added per employee declined from 19.2 thousand So.Sh. to 11.9 thousand in spite of increasing productivity in the private sector.

TABLE II-1  
AVERAGE CONSUMER PRICE INDEX (MOGADISHU)

	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>
Consumer Price Index (1975 = 100)	100	114.0	126.0	138.7	171.8	273.8	398.1

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Source: "Somalia - Stand-By Arrangement - Review and Program," IMF, March 1982.

The economic situation has caused both the Government and international donor agencies to focus on expansion of settled farming as the major thrust of development strategy, largely abandoning earlier efforts to develop export and import substitution industries. However, this effort to date has done little to slow temporary and permanent migration to urban areas (with urban population estimated to be growing at about five percent a year while total population is growing at about 2.3 percent a year) and especially to Mogadishu (estimated to be growing at about 9.0 percent a year in population). Negative experience in other countries of using an agriculturally oriented strategy as a means of slowing urban growth is probably applicable to Somalia, even over the longer term.

At least one study—that of the African Studies Center at Boston University—goes beyond these general concerns to question the underlying premises of this strategic orientation.

"We do not find donor assumptions about existing patterns of production or the policies based upon them well supported by available data. Nor do we believe that major gains in agricultural production can be achieved by strengthening government agencies so that they can more effectively impose rational resource management in the pastoral sector, promote agro-pastoral integration, and introduce known, readily available technologies.

"The assumption that dry land agriculture can easily be intensified and extended to new areas is not well supported by recent land use studies in the Bay Region which suggest that present agricultural practices are reasonably efficient under present factor endowments, that present techniques are conservationist in character, and that there is much less unused arable land in the region than had formerly been estimated.

"In sum, it appears to us that an inward-looking development strategy that focuses almost exclusively on raising agricultural production through the introduction of 'modern range management' and technology presumed to be readily available is neither efficient nor effective."<sup>7</sup>

On the positive side, the Boston University Study recommends a more outward looking strategy based upon efforts to regularize the export of Somali labor (and repatriation of income earned abroad) to Arab countries and renewed efforts at developing additional export markets and industries as well as import-substitution industries. The probability of continued high rates of urban population growth makes such a strategy not only appealing but probably necessary.

Over the next decade, efforts to expand industry will be (and probably should be) largely focused on the Mogadishu area. A USAID memorandum by David Benson and Stephen Reeve on Somalia notes that:

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<sup>7</sup>Boston University, op. cit., pp.8-9.

"Food processing (sugar, grain milling, milk and fish processing), textiles, and cement are the most important industries. Most factories are located in Mogadishu where power, transport and markets are readily available."<sup>8</sup>

The most readily available markets for expansion of the export of goods and labor services appear to be Arab countries (goods exports to these countries ranged from 62.3 percent to 89.9 percent of total exports during the 1970s). Currently, virtually all exports are agricultural or processed agricultural products. However, the Boston University Team thought that:

"In the long run it is quite possible that Somalia can develop an efficient export-oriented manufacturing and service sector that will maximize returns to human resources and location through exploiting the markets of the Gulf. An outward-looking strategy must be seen as a complement, rather than an alternative to a strategy, that continues to seek increases in agricultural and livestock production."<sup>9</sup>

Somalia presents an obvious case of the need to integrate agricultural and industrial (urbanization) strategies. Nearly all of Somalia's current industry is agriculturally related. As indicated by the World Bank, the 43 public sector enterprises (as of 1979) accounted for 80 percent of value-added in manufacturing and 77 percent of gross output.<sup>10</sup>

Most available reports which address the issue of industrial difficulties cite the lack of availability of agricultural raw materials as a major cause of poor industrial performance. The need is clear, therefore, to attempt to expand agricultural output and rationalize producer prices to provide incentives to do so. In our judgment, however, this effort should not be seen as a means of preventing urban population growth but rather as a means of increasing urban output potential (through industrialization) as well as raising producer incomes in agriculture.

According to the World Development Report, 1982, agricultural output in Somalia increased by about five times (in real terms from 1960 to 1980). Over the same period, industrial output increased by about nine times. Thus, a one percent increase in agricultural output has been associated with about a one and three quarters percent change in industry output over this period.

While it clearly does not necessarily follow that additional agricultural output would cause such an increase in industrial output, it is likely that it could have such an effect with better integration of industrial and agricultural policies—

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<sup>8</sup>Draft memorandum to Somalia filed by David Benson and Stephen Reeve, March 4, 1983, p.2.

<sup>9</sup>Boston University, op. cit., p.13.

<sup>10</sup>Memorandum on the Economy of Somalia, World Bank, 1980, Annex I, p.1.

particularly since so much of Somalia's industry is agriculturally-related on the input side and could become more agriculturally-related on the output side.

Analysis of the equivalent relationship for all low income countries shows that, overall, a one percent increase in agricultural output has been associated with a larger increase in industrial output than is true of Somalia (3.37 as opposed to 1.76) between 1960 and 1980. This information suggests that a more intensive industrialization effort could (and should) be made in Somalia; with the additional industry providing a larger urban industrial employment base and through its additional service requirements for inputs and output marketing, a base for productive orientation of service employment and income-earning possibilities.

Obviously, expansion of agricultural output by itself is not a sufficient condition for the creation of an expanded industrial base. As indicated by the World Bank:

"... the output, productivity and profitability of Somalia's manufacturing enterprises (mainly in the public sector but also in the private sector) have been constrained by scarcities of other essential inputs including spare parts, other imported components, working capital, complementary infrastructure and and qualified managerial and technical personnel."<sup>11</sup>

In addition to these "supply-side" constraints, the performance of industry is also constrained, on the demand side--existing export markets will need to be expanded, new ones found and local substitutes for imports made more competitive in quality and price to expand demand.

These issues clearly need to be addressed, along with better integration of agriculture and industry policies and practices.

Unfortunately, however, the failure to develop more viable export industries has resulted in Somalia becoming more, rather than less, dependent on primary products since 1960. In 1960, primary products accounted for 88 percent of Somalia's exports. By 1979, this proportion had gone to 99 percent as reported in World Development Report, 1982.

This increased dependence on the primary products has not been as detrimental to Somalia as it might have been. The world prices of Somalia's exports have risen by 3.2 times while import prices have risen by 2.2 times, thus improving the terms of trade. However, the volume of imports has risen much more rapidly than exports resulting in severe balance of payment problems. A strategy of seeking export opportunities in the Gulf states, therefore, needs to be coupled with a strategy for developing import-substitution industries. Both objectives will be facilitated by exchange rate adjustments in the direction of free market rates; but the need remains to establish a more efficient local industrial base. Mogadishu probably offers the best location for emphasis in such an effort.

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<sup>11</sup>Somalia Policy Measures for Rehabilitation and Growth, p.18.

Based upon available information, this effort should take two distinct forms:

1. The development of new markets and improved maintenance and updating of capital stock in existing establishments; and
2. The creation of new industrial establishments for both domestic and overseas markets.

Industrial establishments in Somalia are generally operating at levels below capacity due to "overly ambitious plant design, imbalances in production processes and shortages of agricultural raw materials."<sup>12</sup>

Operating existing establishments at near full capacity levels would increase efficiency without necessitating as much new investment per employee as is generally true of creating entirely new establishments. It is unlikely, however, that such an effort would have a major impact on employment levels since most existing plants (in the public sector at least) are already substantially overmanned. The World Bank has estimated that employment in public enterprises increased by almost 17 percent a year from 1973 to 1978 while value added per employee was falling.<sup>13</sup> Consequently, the provision of substantial new employment possibilities require the creation of new industrial plants.

Mogadishu offers promise for efficiency in expanding industry. Not only is it the major internal market, but also, as indicated earlier, already has some of the basic industrial infrastructure required--thus holding down the amount of infrastructure expenditure needed to support industrial development.

### C. NATIONAL DEVELOPMENT FINANCE INSTITUTIONS

The finance institutions in Somalia are not well developed. Inter-family borrowing is probably the largest source of credit in the nation overall. Organized savings mobilization is limited to the Postal Savings Program which pays between four and five percent interest and commercial banks which pay five percent on savings accounts (most Somali's interviewed said that they did not have savings accounts in the bank or use banking facilities).

It was reported that a new development finance institution will be established as a joint Arab - Somalia Bank, but no firm information was obtained.

The Somali Development Bank is the largest institution making development loans to the private sector. The Somali Development Bank was established in 1968 as a publicly owned corporation. The share capital was provided by the Government of Somalia, the Central Bank of Somalia, the Commercial and Savings Bank, and the

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<sup>12</sup>"Memorandum on the Economy of Somalia," World Bank, March 1981, p.13.

<sup>13</sup>Ibid.

State Insurance Company. The total paid in capital is So.Sh. 200 million. The Bank has received funding from International Development Association or the World Bank, and minor funding from the German Government, USAID, and the Algerian Government.

The operations of the Bank have included 1404 projects between 1969 and 1980. This works out to an average loan of So.Sh. 244,444. Loans are usually made for periods of two to six years. The Bank selects its own projects for investment. Ninety-five percent of the loans are made to the private sector. The loans are usually collateralized against land, buildings, or equipment. Loan repayment was reported to be between 80 and 90 percent.

The State Insurance Company is also a source of development finance in Somalia. The State Insurance Company was established after the 1969 Revolution through the nationalization of foreign owned insurance companies. The investments of the State Insurance Company have not so far been much of a factor in national development.

The projects listed by the State Insurance Company as their investments consist of So.Sh. 22.2 million in new office facilities, houses for management level personnel, and garages for the repair of motor vehicles insured by the company. The major investment has been So.Sh. 315 million in the publicly owned Somalfish Company, So.Sh. 24 million in a spare parts factory, So.Sh. 28 million in an industrialized housing factory (which is not now producing housing), So.Sh. 10 million in downtown Mogadishu land, and So.Sh. 2.5 million in a Mogadishu hotel. The State Insurance Company has a So.Sh. 5 million investment in the Somali Development Bank.

In 1981 total premium income was reported at So. Sh. 67 million and claim losses paid were So.Sh. 17 million.

#### **D. URBAN INCOME AND JOB REQUIREMENTS**

The ILO study estimates the 1980 urban population at 1,390,000 with 231,667 households (six persons per household). They divide the households between wage earners (108,300 households) and non-wage earners (123,367 households).

Jammal estimates that the 1980 urban GDP was So.Sh. 8,152 million and the per capita urban GDP at So.Sh. 5,865. This works out to a household GDP of So. Sh. 35,190. However, Jammal estimates that non-wage households have enjoyed much higher incomes than wage earner households since wages have lagged behind inflation and taxation on wage earners has been much higher than on non-wage earners.

Remittance money from workers abroad comprise approximately 40 percent of urban purchasing power.

In 1980 Jammal estimates the "basic food basket" cost So.Sh. 716 per month and other essentials cost a minimum of So. Sh. 437 for a total cost of So.Sh. 1,150

per month as the poverty threshold. By 1981, this total was estimated at So.Sh. 1,932 because of inflation. Jammal estimates that the average household income not including remittance money at So.Sh. 649 in 1980 and So.Sh. 720 in 1981. Therefore, without remittance money more than half the urban households would be below the poverty level.<sup>14</sup>

The overall weakness of the urban economy raises the potential for high rates of unemployment and underemployment in the urban centers and particularly Mogadishu. Table II-2 presents 1981-1986 estimates of the non-agricultural jobs and work force for Mogadishu and other centers. These estimates prepared by George Clarke, United Nations consultant, are based on the 1978 Manpower Survey of the Ministry of Labor updated.

If anything, these estimates are conservative because the total urban population is likely to be higher and a 30 percent labor force participation ratio is likely to be low. Nonetheless, the total estimate of jobs needed by 1986 of 255,000-340,000 still represent a major challenge to government and the private sector.

TABLE II-2  
NON-AGRICULTURAL JOBS AND WORKFORCE IN URBAN CENTERS  
1981 AND 1986  
(excluding Defense Ministry and Armed Forces)  
(000s)

JOBS AND WORKERS	MOGADISHU	16 TOWNS POPULATION		REMAINING 55 SETTLEMENTS	TOTALS
		20/200,000			
1978 Gov't jobs	50	20		3.5	73.5
1978 Private Occupations	26	19		10.5	55.5
1978 Total	76	39		14.0	129.0
1981 Total	84	43		15.0	142.0
Available Workforce:	30 percent population	30 percent population		10 percent population	
1981	150-175	160-200		18-22	328-397
1986	175-200	200-250		22-32	397-482
Unemployed 1981	66-91	117-157		3-7	186-255
Workforce Growth 81-86	25-30	40-50		4-10	69-85
New Jobs Needed 81-86	91-121	157-207		7-17	255-340

Source: National Urban Strategy for Rural Development In Somalia, United Nations Centre for Human Settlements, George Clark, September 1981.

<sup>14</sup>Rural Urban Income Gap And Income Distribution, ILO-JASPA, Addis Ababa, 1982 (Jammal)

## CHAPTER III

### NATIONAL SETTLEMENT SYSTEM

In Somalia the definition of an "urban center" is any settlement where 5,000 or more people live together in a relatively dense area. In 1981 it was estimated that there were 40 settlements defined as "urban" of which 17 settlements contained populations in excess of 20,000 persons. Map III-1 presents the national settlement system. The source of the map is the World Bank.

The smaller settlements usually consist of traditional housing (wattle and daub, or mud with lime plaster) grouped around a small cluster of public facilities and markets. Most of the population is active in agriculture.

The Somali settlement system provides services to the nomadic population as it moves in search of water and pasture for livestock in response to the wet and dry seasons. During the dry seasons the nomadic population tends to "settle" close to water in the small villages. Therefore the population of the small towns can be larger by 25 percent or more during dry seasons than during the wet seasons. Those settlements which have reliable water sources year around tend to become places of permanent settlement and trading.

The small coastal settlements tend to rely on artisan fishing as their economic activity.

The main rivers of Somalia, the Juba and the Shebelle, have had a strong influence on the settlement system. The Juba River has provided access from Kismayo to Lugh, linking small settlements along the way. The lower Shebelle River links Mogadishu with Kismayo, and the Middle and Upper Shebelle River links Mogadishu to Belet Wein.

The highway system has tended to follow these river routes, reinforcing the linkages between the settlements. In addition, the north-south highway which takes off from Belet Wein and runs north to Burao, Berbera Port, and Hargeisa provides the only linkage between the agriculturally productive areas of the south and northwest.

George Clark, a United Nations consultant, has diagramed the settlement system in Somalia as shown in Diagram III-1.

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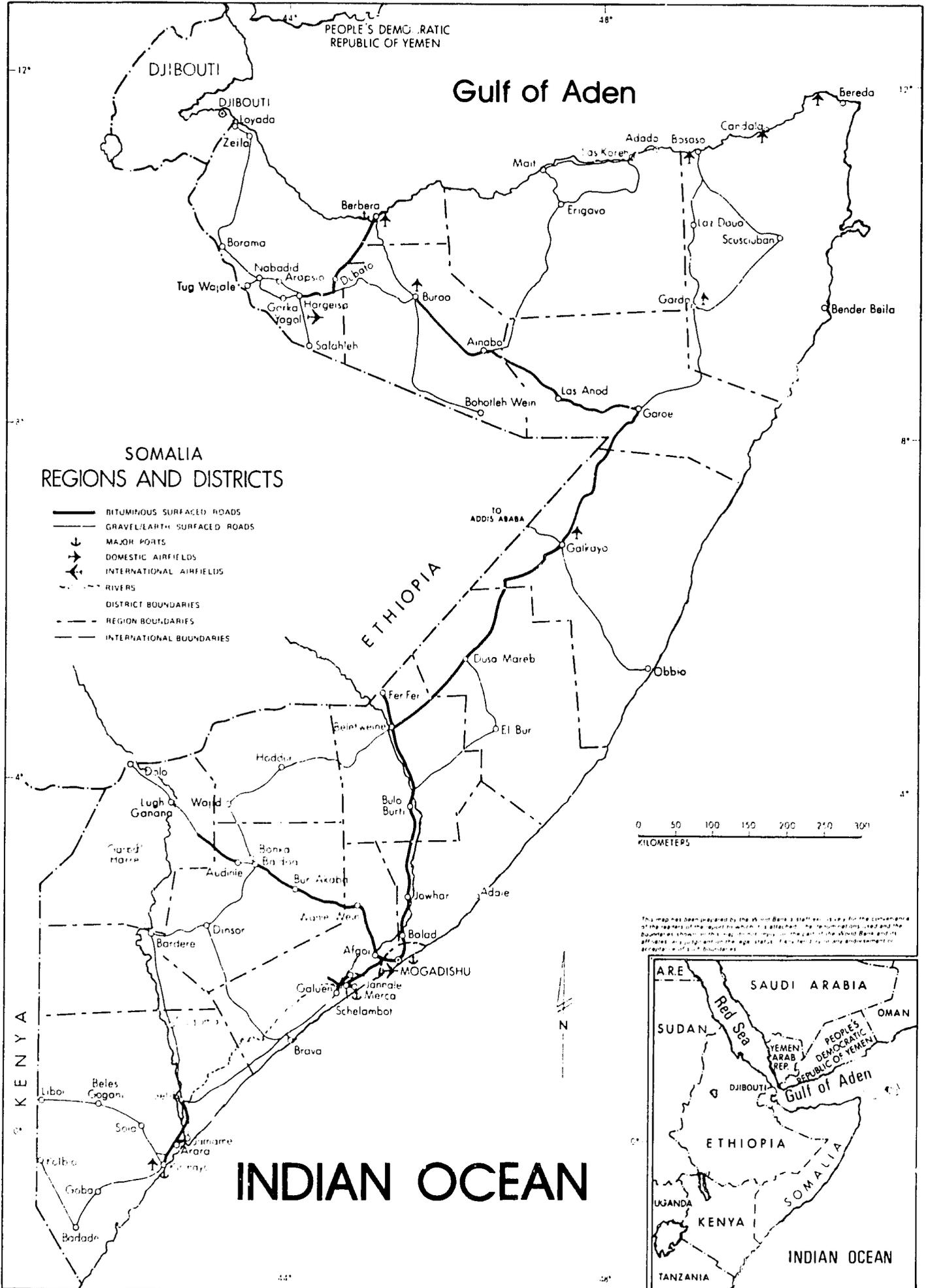
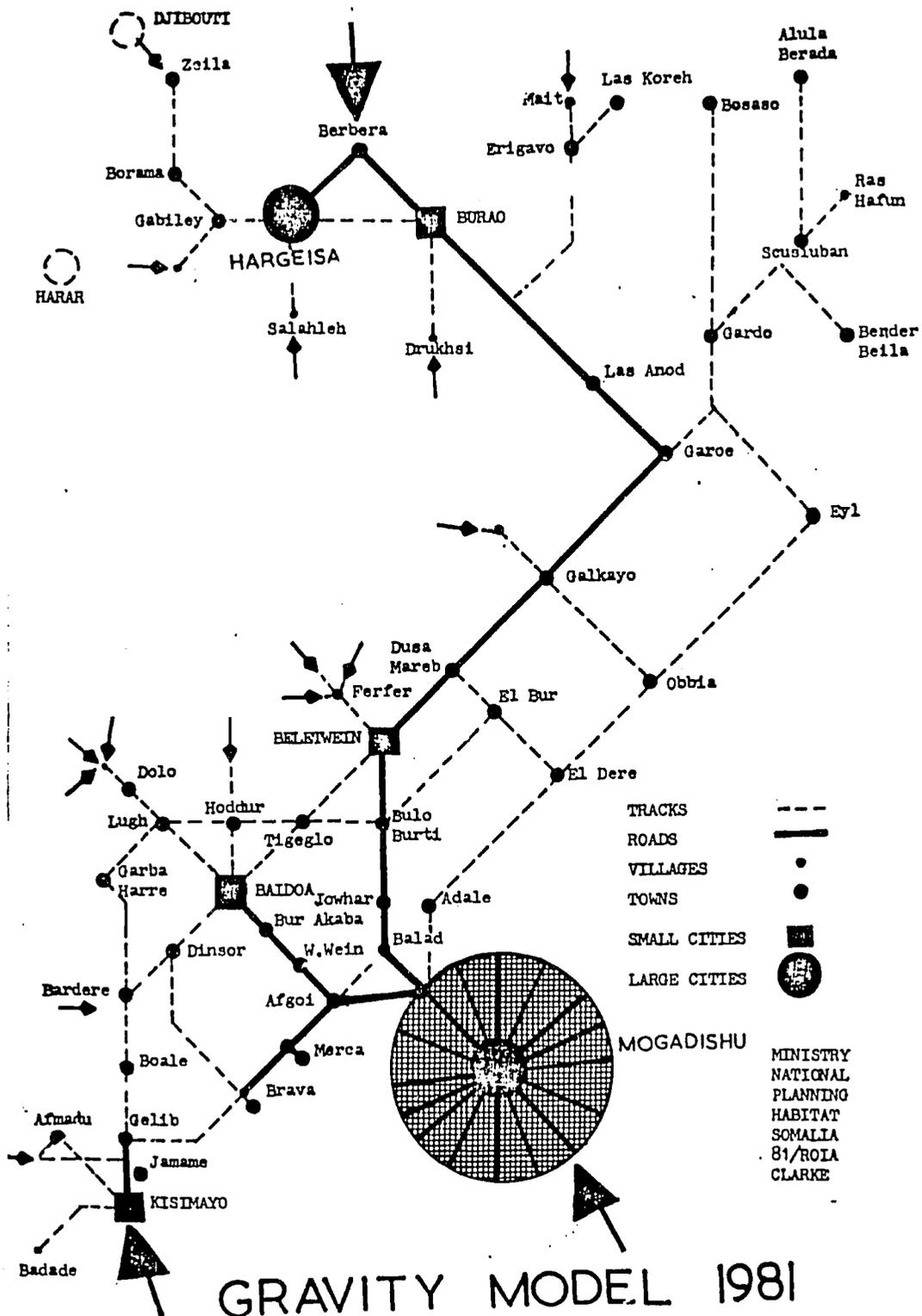


DIAGRAM III-1



Because of the rivers and national highway system, the basic national settlement system structure is well formed and relates to the areas of economic opportunity in the nation. The key issue to be addressed is how to strengthen the major urban centers within the settlement system in order to better support agricultural development and to create a stronger urban economy to contribute to national economic growth. Since the capital investment resources will be limited, strategic planning of urban investment will be required. This, in turn, will mean the selection of relatively few urban centers for priority.

The provision of water supplies to urban centers has been a priority of the Government. Table III-1, "Hierarchy of Towns by Water Consumption: Actual 1981 and Planned 1986," indicates the current status and projections for urban water supply.

There is presently a piped water supply in only four urban centers (not including Mogadishu). These are located in Hargeisa, Burao, Baidoa, and Kismayo. The West German aid program is concentrating on building basic water supplies in other centers. The most advanced are Berbera, Jowhar, Afgoi, Merca, and Balad. Another seven systems are in the preliminary design phases.

#### **A. SELECTION OF SECONDARY CITIES FOR DEVELOPMENT PRIORITY**

Mogadishu, is strongly favored in the settlement system for many reasons. It is the capital city and therefore enjoys the high investment levels and employment associated with the national government establishment. It is the primary port of the country and therefore attracts the enterprises and employment associated with port activities. It is the most favored center within the national highway system having the best access to all of the productive regions of the country. It has been selected as the site for most of the major public and private sector industries. It has ample land resources in the surrounding area so that its growth is not unduly constrained. It has a favorable climate and rainfall in relation to other places in Somalia. For all of these reasons it is not surprising that Mogadishu has grown most rapidly and dominates the settlement system of the nation.

There is nothing inherently bad in the dominance of Mogadishu, nor in its continued growth and development. The primary objective of achieving higher rates of economic growth in the nation will mean that Mogadishu with all its locational advantages must play a significant role. Those economic activities which have comparative advantage in Mogadishu should be located there, even though it contributes to the continued growth of the city.

Nonetheless, it is in the national interest to encourage the growth of secondary cities to play a stronger role in national economic development. This is particularly important given the strong linkages between urban settlements and their rural hinterlands. Secondary cities in Somalia can contribute to improved productivity in agricultural and livestock development and provide locations for agro-industry.

TABLE III-1

HIERARCHY OF TOWNS BY WATER CONSUMPTION:  
ACTUAL 1981 AND PLANNED 1986

City or Town	Consumption	Estimated	Average Litres
	in Cubic M Per Day (000)	Population Range (000)	Per Person Per Day
	1981-86	1981-86	1981-86
Mogadishu	15-46	500-650	30-71
Hargeisa	3-6	100-200	30-30
Kisimayo	not available	35-45	not available
Burao	2-2.1	50-60	41-34
Baidoa	1-n.a.	50-60	20-n.a.
Berbera			
People	0.3-1.6	25-35	12-45
Livestock	0.3-0.4		
Cement Factor	nil-0.5		
Jowhar	0.2-1.4	35-50	5.7-28
Afgoi	0.2-1.4	30-50	5.7-29
Merca	0.27-1.2	30-35	2.3-34
Balad	22.10-0.8	20-25	1.5-31
<b>SUBTOTALS</b>	<b>22.1-62.4</b>	<b>760-995</b>	

\* Mogadishu share 1981: 67 percent      1986: 74 percent

The West German Agency for Technical Cooperation (GTZ) is engaged in drilling for water in 5 additional towns with the intention of building 5 new urban water systems by 1986, as follows:

Town	Consumption	Population	Litres
	(000) CMD	(000)	Person
	1986	1986	Per Day
Galkayo	1.3	31	36
Gardo	0.7	22.7	26
Garoe	0.7	19	32
Erigavo	1.1	18	53
Dusa Mareb	0.3	8.8	30
<b>SUBTOTALS</b>	<b>4.1</b>	<b>99.5</b>	<b>41</b>
<b>TOTALS 15 TOWNS**</b>	<b>66.5</b>	<b>1,094.5</b>	

\*\* Mogadishu share of 15 towns in 1986: 69 percent

GTZ currently intends to begin feasibility studies of urban water systems for 7 additional towns, but it seems unlikely that these would be operational by 1986:

Bardere	Bulo Burti
Belet Wein	El Nur
Brava	Hoddur and Lugh

It has not been possible during this assignment to study the secondary cities of Somalia in the depth necessary to formulate a national urban policy. Further work will need to be done in this area, but the secondary cities which are likely to be the targets of priority can be identified based on their present function and locational advantages. Given the limited capital and management resources available to Somalia for urban development, only a limited number of centers should be considered. The following secondary cities are suggested for further study as the most promising areas for accelerated urban development.

**1. Kismayo**

Kismayo is the second largest port behind Mogadishu. Its 1975 population was reported to be 30,000. It has been growing rapidly and it is estimated to have between 50,000 and 60,000 people as of 1983. Kismayo serves the Juba River agricultural hinterland. It has been recently connected to Mogadishu by all-weather paved road. There are road improvements planned for its Juba River access. If and when the Bardere Dam is constructed, Kismayo is likely to benefit from the development project itself and from the increased output of the region.

**2. Baidoa**

Baidoa is the administrative center of the Bey Region and the highly productive inter-riverine agricultural area. This area is the target of major internationally financed agricultural development projects. As a result, Baidoa has been growing rapidly from its 1975 population base of 31,000. It is reported to have approximately 50,000 people in 1983. It is the site of considerable construction activity and rapid increases in its trading and commercial functions.

**3. Hargeisa, Burao, and Berbera**

These three urban centers form the urban settlement system servicing the northwest area of Somalia. Berbera is the third largest port in the nation but, because of its very hot climate, has never supported a major permanent population. Recent proposals have been made to expand and improve the Port. Burao is the first major settlement on the North-South Highway from Belet-Wein and is a major center for the marshalling of livestock for shipment to the Gulf States. Hargeisa is favorably located in the highlands with a cool climate. Hargeisa has as their administrative headquarters in the region. The future agricultural and livestock development of the northwest region should be integrated with further urban development in these three centers.

If further investigation confirms that the above urban centers are the most promising for future economic development, specific plans and programs should be developed which will support their growth. These urban centers should be given priority for investment in economic development and supporting infrastructure and social facilities.

Programming for other urban centers should be designed to meet the minimum requirements for water supply and social facilities as a means of achieving inter-regional equity objectives for their populations. Expenditures for these other non-priority urban centers should be kept to the essential minimum in order to have sufficient funds for the high priority investments.

It is unfortunately true that there is not sufficient capital available either locally or through international support to undertake all of the improvements which the Government might desire, and, therefore, the allocation of available funding is critical in achieving economic growth objectives in high priority urban centers.

## B. THE ADMINISTRATIVE HEIRARCHY OF CITIES

The Ministry of Local Government is responsible for the administration of the nation's cities (other than Mogadishu). The urban centers are categorized as Class A (Mogadishu is the only class A city), Class B (which includes cities which serve as regional headquarters), and Class C (which includes the headquarters of the "poorer districts"). Individual urban centers can pass from one class to another based on their socio-economic development progress as determined by the Ministry.

The functions of the Ministry of Local Government at the local level include:

- Preparing budgets and establishing sources of revenue
- Coordinating rural development projects
- Working on famine relief campaigns
- Maintaining contact with the people
- Supervising the enforcement of party rules and the constitution
- Carrying out "day-to-day" administration

Each region has a regional development council responsible for development plans. The council is comprised of the heads of the agencies in the region, security forces, the appointed mayors of the towns, the district commissioner, and the secretary of local government. The councils meet at least every three months.

There is a regional governor who is responsible for overall development and coordination. There is also a local People's Assembly.

There is a limited amount of funding which is passed down to local governments from the center, but for the most part local governments are financed by local resources which are limited in most cases.

### C. DISTRIBUTION OF NATIONAL INVESTMENT

The Five Year Development Plan 1982-1986 has been under review and discussion with the World Bank. As a result the overall Plan is in the process of being cutback to reflect the level of resources likely to be available for investment. This process has not yet been completed, but the Government as of July 1983 had prepared a revised investment program calling for US\$2.278 million. It is believed that this total may be cut further. Nonetheless, it has been used here to illustrate the priorities and locational distribution of investment in Somalia as it relates to urban development.

#### 1. Objectives<sup>15</sup>

The basic objectives of the 21 October 1969 Revolution will continue to be emphasized under the new Five Year Development Program. They are:

- To raise the standard of living of the population to the highest possible level.
- To provide opportunities for gainful employment to the entire labor force.
- To create a society based on social justice and individual freedom within a socialist framework.

Additional objectives which the Government hopes to achieve within the Five Year Plan are the following:

- To accelerate growth in overall production so as to assure a more rapid improvement in per capita incomes.
- To reduce disparities between urban and rural populations in income and access to social services for reasons of equity, as well as to discourage urban drift and prevent rising urban unemployment.
- To protect the environment and reverse the deterioration of cropland and rangelands, which lead to desertification, so as to improve productivity and ensure that productive activities based on these vital national resources can continue.
- To foster self-reliance and encourage popular participation in the development effort.

#### 2. Spatial Analysis by Category of Investment

PADCO analyzed the investments proposed in the revised Five Year Development Plan and disaggregated them by sector and location to determine their ultimate use. The categories include:

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<sup>15</sup>Source: Five Year Development Plan, 1982-86

- **Productive use:** defined as money going into activities which will increase material outputs (such as livestock production). Productive investment was divided into two types: that going to new projects and that going to maintain or expand existing projects.
- **Supportive use:** defined as money going into basic infrastructure (roads, water systems, storm drainage, sewer systems); social services (schools, health clinics, libraries); or housing (usually destined for workers at a project site).
- **Institutional use:** defined as technical assistance and training; studies and plans.

The results of this study may be seen in Table III-2, "Proposed Investment by Type of Investment and by Sector." Agriculture and livestock expenditures account for 27.8 percent of the proposed budget. This is in accord with the FYDP's goal as stated in the forward of the plan, "to place heavy emphasis on improving the productivity of the agriculture and livestock sectors which employ most of our people and provide almost all of our export revenues." Heavy emphasis is placed on new investment, 42.7 percent of the budget in all sectors.

Emphasis is also placed on providing basic infrastructure. The transport and communications sector which receives 13.6 percent of the budget, while infrastructure in all sectors receives 29.2 percent of the total. The manufacturing sector, a potential generator of employment, will receive 12.1 percent of the budget. A high priority is placed on education, with investment equal to 9.8 percent of the total. The manufacturing sector, a potential generators of employment will receive 12.1 percent of the budget. A high priority is placed on education, with investment equal to 9.8 percent of the total.

An effort was made by PADCO to determine investment by geographic location as well as by sector in Table III-3.

Mogadishu and Benadir Province are slated to receive the greatest percentage of the total, 22.3 percent. Large investments are to be made in installing a water system in the City, in new roads and transmission lines, and in livestock production improvements. Marketing and storage for the proposed expansion of fisheries will also take place here as will new industrial development and training centers to serve the entire nation. Successful development of agriculture, livestock and manufacturing sectors in fact depend on a strengthened capital city in order to effect the desired changes.

TABLE III-2

PROPOSED INVESTMENT BY TYPE OF INVESTMENT AND BY SECTOR,  
REVISED 1982-1986 FIVE-YEAR DEVELOPMENT PLAN,  
SOMALIA DEMOCRATIC REPUBLIC, JULY 1983

(in millions of U.S. \$ at current prices)

Sector	TYPE OF INVESTMENT							Total	Perco
	PRODUCTIVE		SUPPORTIVE			INSTITUTIONAL			
	New	Existing	Infra- structure	Social	Housing	Training Technical Assistant	Studies Plans		
Livestock	193.36	9.00	-	-	6.06	9.40	17.30	235.12	10.3
Agriculture	275.60	40.10	34.10	-	-	41.80	7.80	399.40	17.5
Forestry	46.20	-	-	-	-	1.50	1.20	48.90	2.1
Fisheries	97.05	3.45	-	-	-	10.80	.20	111.50	4.9
Minerals	-	-	-	-	-	-	42.50	42.50	1.9
Manufacturing	245.20	22.10	-	-	-	8.00	-	275.30	12.1
Energy	-	-	89.70	-	-	3.50	-	93.20	4.1
Water resources	-	-	211.50	-	-	4.30	.20	216.00	9.5
Transport and Communications	8.20	-	290.09	-	-	7.40	3.60	309.09	13.6
Tourism	-	-	-	-	.10	-	-	.10	0.0
Trade and Commerce	78.50	-	-	-	-	.80	-	79.30	3.5
Education	-	-	-	222.40	-	.60	.10	223.10	9.8
Health	-	-	-	81.30	-	2.90	-	84.20	3.7
Manpower	-	-	-	.60	-	15.50	.70	16.80	.7
Statistics	-	-	-	1.25	-	2.75	2.70	6.70	.3
Information	-	-	-	3.40	-	-	-	3.40	.1
Regional and Rural Development	35.50	-	40.50	40.50	-	2.30	7.00	125.80	5.5
Administration	-	-	1.00	-	-	4.10	2.30	7.40	.3
TOTAL	979.61	74.65	666.89	349.45	6.16	114.15	85.60	2277.80	
PERCENT	(43.00)	(3.30)	(29.20)	(15.40)	(.30)	(5.00)	(3.80)	(100.00)	

Source: PADCO elaboration of revised Five-Year Development Plan data

TABLE III-3

INVESTMENT BY SECTOR AND LOCATION: REVISED 1982-1986 FIVE YEAR DEVELOPMENT PLAN;  
SOMALI DEMOCRATIC REPUBLIC, JULY 1983\*  
(in millions of US \$ at current prices, 1983)

Location	SECTOR																	Total		
	Livestock	Agriculture	Forestry	Fisheries	Minerals	Manufacturing	Energy	Natural Resources	Transport and Communication	Tourism	Trade and Commerce	Education	Health	Manpower & Employment	Statistics	Information	Regional & Rural Development	Administration		
1. Mogadishu and Benadir	30.4	2.2		12.85	7.3	93.1	48.8	107.2	59.83	.1	15.3	83.6	15.6	16.8	4.6	2.0	5.0	4.1	508.78	(22.3)
2. Balad and Jowhar	68.9	24.9				17.6													111.4	(4.9)
3. Middle Shebelle													2.1						2.1	(.1)
4. Afgoi, Koryole, Kurtanwarey, Wermahan, Brava	6.1	33.1		1.05			11.0		4.8										56.05	(2.4)
5. Lower Shebelle	5.35	49.95						.2	63.05				2.1						120.65	(5.3)
SUBTOTAL																			798.98	(35.0)
6. Kismayo	11.06			14.3			6.6		39.73				9.3						80.99	(3.6)
7. Fanole		31.8																	31.8	(1.4)
8. Gelib													8.6						8.6	(.4)
9. Middle and Lower Juba	6.55	42.15				38.3			14.3										101.3	(4.4)
SUBTOTAL																			222.69	(9.8)
10. Baidoa							6.6		3.1										9.7	(.4)
11. Bay		42.6						14.0	20.25										76.85	(3.3)
SUBTOTAL																			86.55	(3.7)
12. Bardhere		123.0				96.3													219.3	(9.6)
13. Gedo									.7										.7	--
SUBTOTAL																			220.0	(9.6)
14. Hargeisa	4.6			6.9			6.6		30.53							1.4	4.0		54.03	(2.4)
15. Berbera	7.46			2.4	.9	30.0	6.6		41.0		23.45								111.81	(4.9)
16. Burao							6.6												6.6	(.3)
17. Northwest	15.2	4.7											2.1						22.0	(.9)
SUBTOTAL																			194.4	(8.5)
18. North (Caroa, LoosKoreh)	2.4	4.4	19.7					.1	.2		23.45								50.05	(2.6)
19. Bari and Northeast	7.7																		7.7	(.3)
20. Central	7.5		19.7					14.0	2.7										43.9	(1.9)
21. Small Cities	58.3							44.8				18.0							12.1	(5.3)
22. Rural Generally	3.6		2.7					23.2				.1	33.5				10.3		73.4	(3.2)
23. Coastline								1.5	1.4										2.9	(.1)
24. Country-wide		40.8	6.8	74.0	34.3		.4	11.0	27.5		17.1	121.4	10.9		2.1		106.5	3.3	456.1	(20.0)
TOTAL	235.12	399.4	48.9	111.5	42.5	275.3	93.2	216.0	309.09	.1	79.3	223.1	84.2	16.8	6.7	3.4	125.8	7.4	2277.81	(100.0)

\*PADCO elaboration of revised Five-Year Development Plan data. Because no detailed breakdowns by line item were available, when an activity was described as taking place in more than one locale, an equal division of resources was presumed to go to each locale mentioned. The total for Transport and Communication is 297.7, but since PADCO received almost unreadable copies, the figures were sometimes guessed at, and our total as a result is more 309.09.

The enlarged Mogadishu region, defined to include Benadir Province, the Middle and Lower Shebelle, and the major towns within these provinces of Afgoi, Balad, Jowhar will account for 35.0 percent of the budget. As the Shebelle is one of two principal irrigated agricultural regions in the country, the appropriateness seems fitting.

This locational priority to Mogadishu is appropriate, but should be recognized as reinforcing to the city's primacy.

Unenumerated country-wide expenditures take up 20 percent of funds. It is probable that some portion of these funds will also be directed to Mogadishu.

There is a great gap between the amount of money going into Mogadishu and the percentage of investment in other regions of the country. No other area receives as much as 10 percent of the budget. The middle and lower Juba area, the other inter-riverine area, will receive substantial support in the agriculture and manufacturing sectors. The Bardhere Dam (which may be omitted from the final budget) is the largest single investment in the budget, whose purpose is to supply power and water for irrigated agriculture.

The Hargeisa, Berbera, Burao triangle of settlements in the northwest is designated for major improvements, especially in transport and communication.

In summary, the national budget priorities as portrayed in the revised Five Year Development Plan appear appropriately located in terms of the urban priorities and objectives supported by this report. Nonetheless, they document the difficulties of adopting a significant decentralization strategy as suggested by Clarke and others in the short-run.

## CHAPTER IV

### MOGADISHU

Mogadishu is an ancient city dating back to at least 1500 BC. Throughout its history, the city has been a trading center with strong links to the Middle East. The city was colonized from the middle of the 16th century. In 1889 Mogadishu was sold by the Sultan of Oman to an Italian company, and in 1905 the Italian Government annexed the entire Benadir Region. In 1941 the Italians were replaced by the British for a brief period. In 1950 Somalia was administered as a United Nations Trust Territory until independence in 1956.<sup>16</sup>

Mogadishu and the Benadir Region are synonymous areas. The region is subdivided into 13 districts and 52 wards.

The Mayor is the chief executive officer and President of the Mogadishu People's Assembly (an elected body of 35 members). The day-to-day administrative control is in the hands of an eleven member standing committee of the Assembly. See Chart IV-1. Table IV-1 indicates the overall dominance of Mogadishu in the nation.

#### A. POPULATION

The population of Mogadishu in 1975, when the first and only complete census was taken, was 380,000 people. According to the Government, however, the number is imprecise and probably undercounts the actual figure as the census was taken at a time of drought when people were moving in search of food and water making an accurate enumeration impossible.

Population projections are, thus, founded on an unsteady base. Furthermore, in the intervening years, Mogadishu has experienced an influx of refugees. These swells in population are further augmented by a cyclical growth of the population during the dry seasons, when members of extended families come to town to augment their salaries and take advantage of city services. The transient population in Mogadishu was estimated to be between 70,000 and 80,000 persons annually according to some sources.

Engineering consultants to the World Bank developed population projections for Mogadishu in 1977 based upon a natural rate of increase of 3 percent compounded annually and an annual net in-migration of 20,000. These rates would put the current 1983 population of Mogadishu at 715,000. PADCO believes these estimates are low.

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<sup>16</sup>Problems of Urbanization with Special Reference to Mogadishu, Report for the XI Conference of Mayors of World Cities, Caracas, Venezuela, 1982.

CHART IV-1

ORGANIC STRUCTURE OF MOGADISHU'S PEOPLES LOCAL ASSEMBLY

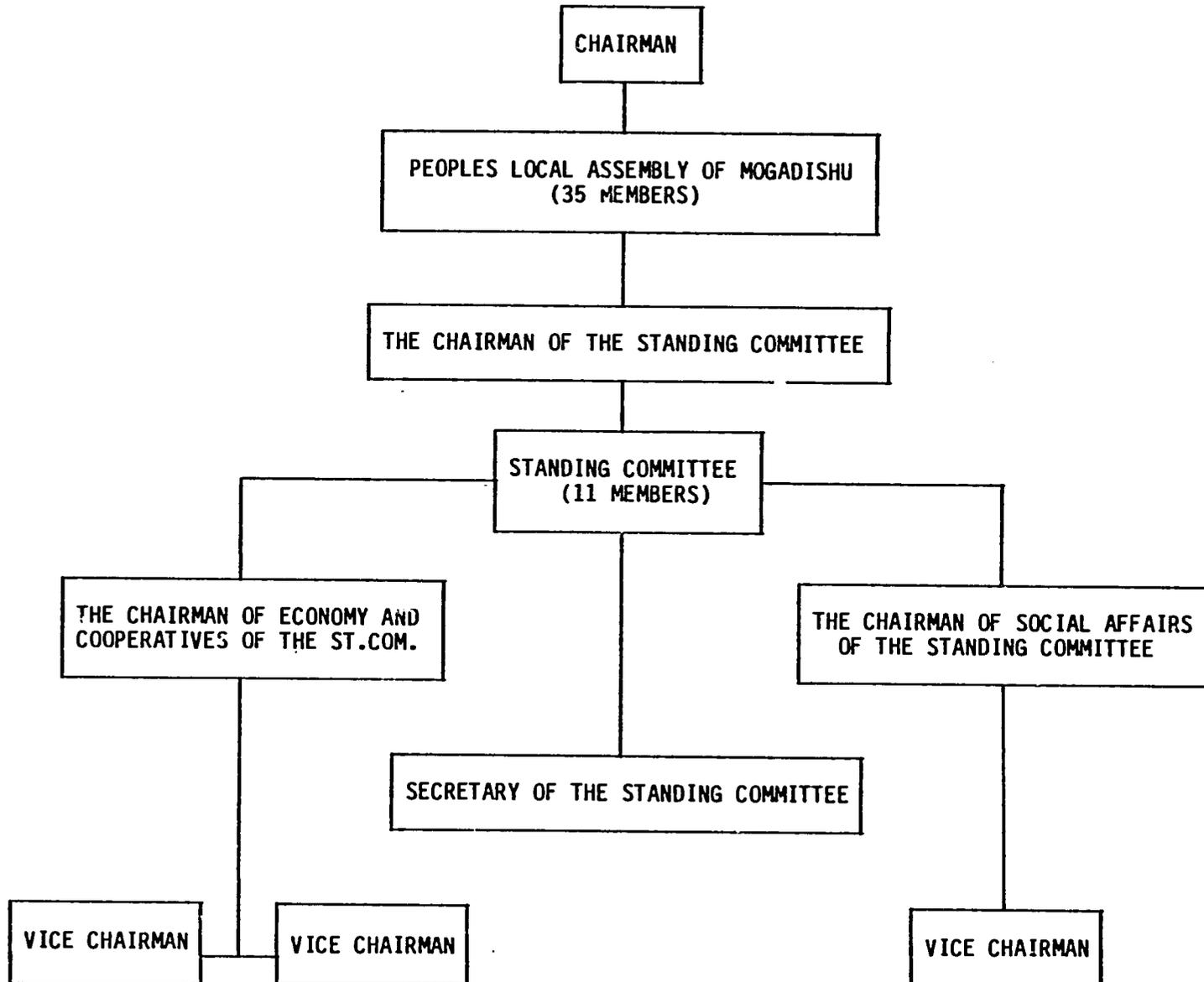


TABLE IV-1  
MOGADISHU'S SHARE OF NATIONAL TOTALS  
BY SELECTED INDICATORS

INDICATOR	MOGADISHU PERCENT OF NATIONAL
Population 1975 and 1980, as estimated by Ministry of National Planning	10 percent to 11 percent
University student enrollments	100 percent
Electrical Generating Capacity 1980	81 percent
Employees in Electricity Generating Works, 1978	77 percent
Telephone Connections, 1980	74 percent
Air Passenger Traffic, 1979	74 percent
Secondary Vocational and Technical School enrollments 1979-1980	73 percent
Drinking Water Consumption from 10 Urban Water Systems 1980	70 percent
Vehicle Registrations 1980:	
Private cars and taxis	71 percent
Trucks and buses over 1.5 tons	59 percent
Trucks and buses under 1.5 tons	34 percent
Cargo loaded at Ports 1979	76 percent
Non-agricultural economic activity measured by Ministry of Labour and Social Affairs/SIDAM Manpower Survey 1978:	
Number of private construction firms	87 percent
Workers in private construction firms	78 percent
Number of private formal and informal manufacturing establishments	78 percent
Workers in those establishments	53 percent
All persons engaged in private sector formal and informal non-agricultural economic activity	47 percent
Industrial Production Survey, Central Statistical Department, Ministry of National Planning, 1978:	
Industrial Establishments (government and private) with 5 or more persons engaged:	49 percent
Employment in the above	43 percent
Employees in the 5 works and Supply Establishments with 5 or more persons engaged	52 percent
Employees of the Ministry of Air and Land Transport (one of the more decen- tralized Ministries) Manpower Survey '78	59 percent
Employees of the Ministry of Health; Manpower Survey 1978	54 percent
Total number of Doctors (Somali and Expatriate) 1979	58 percent
Number of Hospital Beds	36 percent
Number of Nurses, Midwives and Medical Assistants	33 percent
Municipal Employees, from Manpower Survey 1978	37 percent

Source: Problems of Urbanization with Special Reference to Mogadishu  
1982

In 1980, according to the same source, Mogadishu contained 45 percent of the urban population, growing at a rate in excess of 6 percent. Other urban areas were estimated to be expanding at 4 percent per year, whereas rural areas experience a 1.2 percent growth rate. City officials claim that their records would indicate a present Mogadishu population figure nearer to one million. It is impossible to confirm any one number. The city estimates are shown in Table IV-2.

TABLE IV-2

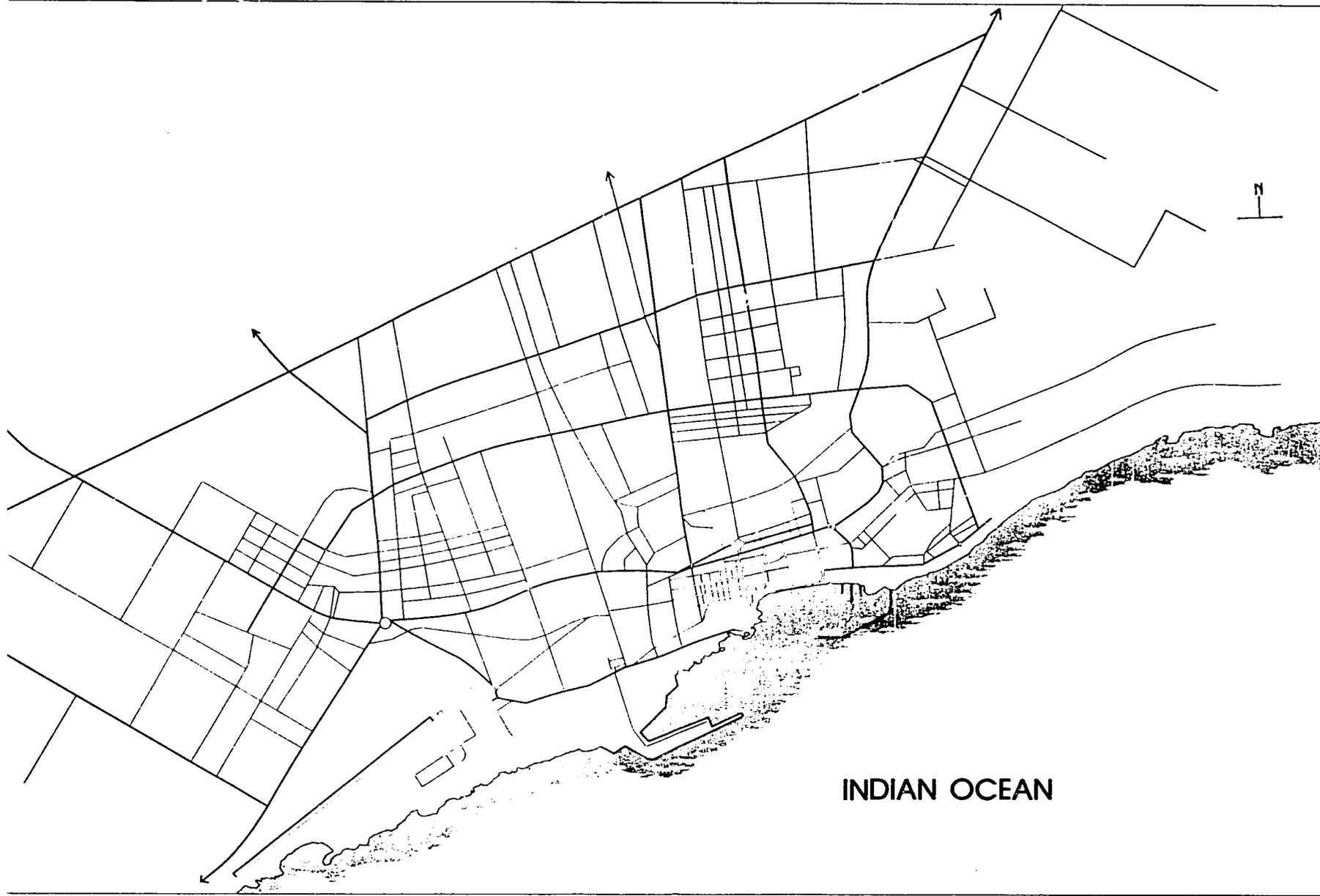
## PROJECTED GROWTH RATE OF CITY URBAN POPULATION

<u>Year</u>	<u>Population (000)</u>	
	<u>High</u>	<u>Low</u>
1979	650	630
1980	702	668
1981	758	708
1982	819	750
1983	884	795
1984	955	843
1985	1,031	894
1986	1,114	947
1987	1,203	1,004
1988	1,299	1,064
1989	1,403	1,128
1990	1,516	1,196

The population density in Benadir province, in which Mogadishu is located, is low—slightly in excess of 12 people per square kilometer. Even so, this figure is twice the country-wide norm of 6 persons per square kilometer.

#### B. PHYSICAL GROWTH PATTERNS (See Maps IV-1 and IV-2)

Mogadishu enjoys good physical conditions for development. The terrain is mildly undulating; the soil conditions throughout the city support most structures; there are groundwater supplies and the nearby Shebelli River for long-term municipal water needs. Constrained by the Indian Ocean to the east and military land inland from 21st October Street to the west, the new residential growth is occurring at both ends of the city: Karaan and Wadajir. New commercial development is taking place along major streets and government and institutional facilities are distributed throughout the city.



MAP IV-1

CITY OF MOGADISHU

LEGEND-

- Local Road
- Arterial



Scale 1:10,000

INDIAN OCEAN

PLAN OF MOGADISHU  
 Based on 1973 Aerial photo

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Prepared by Sormeh Bayal for  
 PADCO INC., Washington D.C. 1983



Secretary Page Elson

### C. URBAN LAND DEVELOPMENT AND LAND TENURE

Suitable land to meet projected urban development needs is in great supply. (See Chapter VI for a full discussion.) Its ownership rests with the Government. The City of Mogadishu pursues an aggressive distribution program. The Land Office has prepared subdivision modules for most of the city. The subdivision of land is of a uniform design - seldom varying from rectilinear gridiron format based on a standard lot size, block size and neighborhood cell. Individuals can receive temporary and permanent use rights to the subdivided parcels at very low prices, and at least at present, at very low annual taxes.

The impact of the design approach on urban aesthetics and land use efficiency aside, the approach has likely facilitated the provision of plots to households which in turn has brought considerable social benefits. One does not see extensive squatter settlements as would be expected from the influx of refugees and migrants. Rather, a windscreen survey has suggested that there are many examples of individual initiative in providing adequate shelter on these personally controlled subdivided modules. No infrastructure, however, is provided.

Land tenure in Mogadishu and other urban centers may be classified as permanent or temporary.

- On permanent land, a person may build a one or two storey structure of stone or wood, and the land may be used for any purpose. Permanent leases technically last for 100 years, and their cost is somewhat higher than for temporary land. Lot sizes vary from 13 x 13.5 meters to 60 x 60 meters.
- On temporary land, houses may only be of one storey and must be built of less sturdy materials; stone may not be used. This land may be reclaimed by the Government, which gives residents a specified amount of time to vacate their home and helps them to relocate, but provides no compensation.

In both instances, however, the Government may use their right of eminent domain to evict dwellers if the land is to be used for a public purpose.

In addition, squatter areas have grown up on vacant unzoned land. When the land is zoned, the Government may remove the squatters or allow them to apply for ownership. Fees for tenancy are low (So.Sh. 3 per meter square).

There is no current information on housing stock. The city estimates that in 1981, there were 12,000 "large houses", 90,000 "low cost houses" and the rest were "temporary shelters" (made of bamboo with mud walls). It is felt that there is a large unmet need for housing in the city in spite of visible evidence of a high rate of house building.

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#### D. THE AVAILABILITY OF URBAN INFRASTRUCTURE

According to the World Bank's "Staff Appraisal Report for the Second Mogadishu Water Supply Project", less than 50 percent of the presently developed area of the city has reasonable access to the water distribution grid.

Most of the population depend upon water delivery by vendors or on water transported from public taps by other means. About 510,000 persons were estimated to be served by public water supplies in Mogadishu in 1980; 50,000 persons (10 percent) through individual connections; and 460,000 (90 percent) directly from public taps or water vendors. The balance of the population relies on private or institutional well supplies.

The inland and southwesterly areas of the city are frequently without water, and the affected areas are growing. Many public taps are continuously dry forcing householders to buy water from vendors at relatively high prices. In addition, water quality is not monitored and only one supply, in Balad Road, is disinfected. There have been no recent reports of ill effects caused by poor water quality.

The proposed World Bank water supply project is expected to serve a 1983 population of 700,000 (upon full utilization of the first water supply project.) increasing to 870,000 persons in 1987 (with implementation of the second water supply project.) According to these figures, 98 percent of the projected 1987 population would, thus, be served by potable water. In addition, average daily per capita supply is expected to increase from 41 lcd to 51 lcd during the same period. However, the City population growth appears to be exceeding these estimates.

There is no public sewer system in Mogadishu. Waterborne waste disposal is limited to a few institutions, such as hospitals and military installations. Even in these instances, waste disposal is inadequate and ground water pollution is occurring. (Pollution has occurred in Mogadishu, but not at the Balad Road wellfield, Mogadishu Water Authority's principal source.) There are no regulations concerning sanitation and the extent of waste disposal facilities to be provided is left to the discretion of the householder. In practice, householders generally have elected to use on-site, individual waste disposal systems consisting mainly of a covered soakage pit. These units although simple in design and construction, are relatively expensive (So.Sh. 6,000) and difficult to maintain.

Under Somalia's Three Year Development Plan, 1979-1981, So.Sh. 400 million (at 1979 price levels) was budgeted for the water supply and waste disposal sector. Donor assistance was committed for So.Sh. 267 million, or about 68 percent of total program costs for the sector. The initial phase of a Mogadishu sewerage and drainage project, modified from its original scope, will serve a portion of those areas in Mogadishu which already have individual water connections. The project is funded by the Africa Development Fund, Islamic Development Bank and the OPEC Special Fund.

It is estimated that approximately half of the Mogadishu population has electrical service. Portions of the existing network are old and in need of replacement.

The city has 112 kms. of all weather road within the city limits. There are over 20,000 vehicles registered in Mogadishu.

There are 6,000 telephone lines.

### E. EDUCATION SERVICES

According to official estimates, Somalia has made considerable progress in meeting basic education needs. Between 1969 and 1978, according to the Government, primary school enrollment rose from 9 percent to 44 percent and adult literacy rose from negligible to 60 percent.

Before 1972, Somali did not exist as a written language, so that people could only be literate in a foreign language (Arabic, Italian or English)—hence the previously extremely low literacy rate. The dramatic increase in adult literacy was achieved through a crash program in the mid-1970's. During this period, secondary schools were closed, and teachers and students joined civil servants and military personnel in teaching the urban and rural populations basic literacy, numbers, and the fundamentals of hygiene and health. Retention rates are not known.

The number of primary schools grew from 187 in 1971 to 1407 in 1980/81 according to the Ministry of Education. This growth depended to a large degree on local self-help efforts in the construction of schools. Secondary schools grew from 26 to 78 in the same time period. However, virtually all studies mention the lack of skilled and trained manpower as a continuing major hindrance to educational development.

In Mogadishu, the city estimates that during the last five years a total of 5,000 additional classrooms have been built by the Municipality, the central Government, or through self-help by the local population. In 1981, the city had seven pre-elementary schools, 55 elementary schools, 57 intermediate schools, 12 general secondary schools, and eight technical and vocational schools. In addition, there were nine women's education centers and 210 adult education classes.

Mogadishu is also the host to the Somali National University (the only university in the country) and the Somali Academy of Arts and Sciences.

The city estimates that the student population in the city is 200,000. Nonetheless, in spite of the educational accomplishments to date, the city expects a demand for classrooms to increase by 25 percent by 1990.

### F. HEALTH SERVICES

In 1974, Mogadishu had five hospitals and infirmaries, 2,670 hospital beds, 17 dispensaries and 7 maternal and child health centers. Service in Benadir province and the country as a whole in 1977 is shown in Table IV-3 below. Table IV-4 shows the comparison in health facilities between Mogadishu and the rest of the nation.

TABLE IV-3

NUMBER OF PEOPLE SERVED BY MEDICAL PERSONNEL  
AND FACILITIES, 1977, IN THOUSANDS

	PER DOCTOR	PER MEDICAL ASSISTANT	PER DISPENSARY	PER HOSPITAL	PER HOSPITAL BED
Benadir (region in which Mogadishu is located)	3	1	28	92	0.1
Countrywide	23.6*	5	17	53	0.6

Source: Somalia, A Country Study, Foreign Area Studies, The American University, Edited by Harold D. Nelson, Research Completed October, 1981. Tables based on information from the Somalia State Planning Commission, Three Year Plan, 1979-1981.

\* This figure is taken from the World Bank statistical report. 1982

TABLE IV-4

## HEALTH FACILITIES 1979

REGION	NO. OF DOCTORS	POPULATION PER DOCTOR	HOSPITAL BEDS	POPULATION PER BEDS
Mogadishu (Benadir)	152 (58%)	3,422	2,034 (36%)	256
Rest of the Nation	111 (42%)	41,026	3,677 (64%)	1,238
TOTAL	263 (100%)	19,293	5,711 (100%)	888

Source: Problems of Urbanization with Special Reference to Mogadishu, 1982

"Morbidity and mortality due to common enteric and parasitic diseases are known to be exceptionally high throughout the country, although documentation is extremely poor. Tuberculosis, malaria, diarrhea, dysenteries and parasitic infections directly attributable to environmental deficiencies are the more commonly observed of the important communicable diseases. Rural areas, small urban centers and fringe areas of the larger towns are particularly vulnerable to these diseases because they are often isolated and lack convenient medical facilities and the basic needs of safe water and sanitation."<sup>17</sup>

Calorie intake as a percent of total requirement was estimated to be 88 percent in the 1974-1977 period. Per capita protein intake (grams/day) was 70 percent of the requirement during this time. Mogadishu figures in these categories are not available. These numbers represent an improvement in dietary standards, particularly in rural areas, due to a concerted program in the early 1970's to increase the number of food outlets in rural areas.

## G. CITY FINANCE

### 1. Organization

The City of Mogadishu Finance Department is headed by a Deputy Mayor who reports directly to the Mayor and the Economic Sub-Committee of City Council. Budgets are drawn up annually. Working on a calendar year basis, they are sent to the national ministries for informational purposes and the City Council for approval in November. The Deputy Mayor, aided by a Special Assistant who helps to coordinate activities, heads the department which is divided into four divisions:

- The Marketing Department is responsible for the operation and management of slaughterhouses, revenue collection from these sources, and sanitation and hygiene of the facilities.
- The Tax and Revenue Office receives money from business and other licenses, property taxes, taxes from concerts, cinemas and the like.
- The Financial Management Office, established this year, will try to advise if shortfalls in anticipated revenues will occur, prioritize expenditures, be responsible for accounting and have all control and coordination of the budget.
- The "Other" revenue department was recently set up to alleviate a growing burden on the Marketing Department. It collects money from service charges, light industries, public transport and taxes collected from Government institutions.

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<sup>17</sup>P.1, Staff Appraisal Report, Somalia, Second Mogadishu Water Supply Project, March 26, 1982, World Bank).

## 2. The Budget Process

There is no overall framework to guide investment. Budgets are based on yearly estimates of anticipated revenues, but accounting is often inadequate in determining how much money was actually collected and exactly where it was spent.

The budget is put together by the division heads who consult the previous year's budget and estimate the following year's revenues and expenditures.

Some projects are decided in advance of the fiscal year; others are carryovers from previous budgets; some are ad hoc projects decided during the fiscal year. No long-term planning is done. If projected revenues do not materialize, the Finance Department requests, and sometimes receives, a grant from the Central Government, they may also create additional revenues by raising taxes or levying new ones or by cutting back on new projects. On rare occasions the city borrows money from a commercial bank on a short-term basis. This was done with city-sponsored housing for public employees.

## 3. Sources of Revenue

The historical revenues of the city (1976-1979) are shown in Table IV-5. The 1983 budget is estimated to be So.Sh. 182,847,000, slightly in excess of U.S. \$12 million. See Table IV-6 for the proposed 1983 taxes (an explanation of each item is presented in Appendix III). As the city population is estimated at approximately one million, this would amount to U.S. \$12 per person.

Major sources of revenue come from taxes on cargo coming into the Mogadishu port and light industries (25 percent of revenues); taxes on vendors who set up stalls in and around the market (16 percent); and taxes on basic commodities, such as sugar, flour, flour products and rice (16 percent). The last tax is called a "business tax" in the budget. It works in the following manner: the government receives the staples from the production mills or farmers and sells them to middlemen or merchants. The tax is levied on a fixed price sale for these items, calculated on the basis of a reasonable profit for the middleman. Mogadishu sets prices for staples that are lower than those in Hargeisa.

Taxes on land and income are low and/or haphazardly collected. For example, the land deed transfer tax is So.Sh. 3 per square meter for plots which are being subdivided on the edges of the city. This study has estimated that approximately 157,000 lots have been partitioned and deeded in the last 8 years.

Land subdivision activity this last year has been heavy. Assuming a conservative estimate of 20,000 plots of 15 x 20 meters allotted this year, of revenues should theoretically be So.Sh. 18,000,000. Revenues from this source are estimated to be So.Sh. 4,500,000 in the 1983 budget.

Taxes are not collected on the resale of property. People have reported as much as a 500-1,000 percent increase in the value of vacant land when it has been resold within a few years. There is no sales tax.

TABLE IV-5  
REVENUE OF MUNICIPALITY OF MOGADISHU, 1976-79

	1976 <sup>1</sup>	1977 <sup>1</sup>	1978 <sup>2</sup>	1979 <sup>1</sup>	1976	1977	1978	1979
	In millions of Somali Shillings				In percent of total			
<u>TOTAL REVENUE</u>	<u>34.2</u>	<u>39.7</u>	<u>57.9</u>	<u>78.6</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
Public Market Tax	5.2	4.8	11.9	13.0	15.2	12.1	20.6	16.5
Animal Tax	1.9	2.5	2.6	4.3	5.6	6.3	4.5	5.5
Business Licenses	2.1	2.3	3.1	4.2	6.1	5.8	5.4	5.3
Entertainment Tax	2.0	1.7	2.8	3.9	5.8	4.3	4.8	5.0
Tax on Private Buses	3.7	4.5	4.6	4.6	10.8	11.3	7.9	5.9
Slaughterhouse Tax	0.6	0.8	0.5	0.6	1.8	2.0	0.9	0.8
Electricity Tax	0.7	0.4	1.1	0.2	2.0	1.0	1.9	0.2
Income and School Taxes	6.9	7.5	8.4	10.6	20.2	18.9	14.5	13.5
Miscellaneous Taxes	2.4	6.1	5.9	10.6	7.0	15.4	10.2	13.5
Sanitation Fees	0.9	0.4	1.2	1.7	2.6	1.0	2.1	2.2
Land Use Fees	0.8	0.5	1.2	2.3	2.3	1.2	2.1	2.9
Weighing Fees	0.1	0.1	0.6	1.8	0.3	0.3	1.0	2.3
Rental Income	0.4	0.4	0.5	1.7	1.2	1.0	0.9	2.2
Garbage Service Fees	0.3	0.3	0.4	0.4	0.9	0.8	0.7	0.5
Construction Permits	0.1	0.2	0.5	0.7	0.3	0.5	0.9	0.9
Animal Registry	0.6	0.5	0.9	1.3	1.8	1.2	1.5	1.6
Small Business Fees	---	1.5	10.5	15.7	---	3.8	18.1	20.0
Cattle and Agricultural Fees	4.8	4.7	0.4	0.1	14.0	11.8	0.7	0.1
Miscellaneous Fees	0.2	0.1	0.2	0.1	0.6	0.3	0.3	0.1
Fines	0.5	0.4	0.6	0.8	1.5	1.0	1.0	1.0

Sources: Municipality of Mogadishu; and Fund staff estimates

- 1 Actual Revenue  
2 Estimated Revenue

TABLE IV-6  
MOGADISHU MUNICIPAL BUDGET FOR 1983 IN SOMALI SHILLINGS\*

<u>SUB. HEAD</u>	<u>DESCRIPTION</u>	<u>1983 BUDGET</u>	<u>1982 BUDGET</u>
Source of income:			
1.2.1	Livestock market revenue	18,000,000	11,500,000
1.2.2	License tax	16,300,000	16,300,000
1.2.3	Cinemas and other entertainment	1,900,000	1,760,000
1.2.4	Electricity	2,000,000	1,000,000
1.2.5	Maritime revenue and taxations	46,000,000	38,100,000
		<u>84,200,000</u>	<u>68,860,000</u>
2.2.1	Housing tax	11,000,000	18,000,000
2.2.2	Lease tax	--	--
2.2.3	Other land tax	--	--
		<u>11,000,000</u>	<u>18,000,000</u>
3.2.1	Fines, penalties and compulsory transfer	1,500,000	1,200,000
3.2.2	Voluntary transfer	54,000	240,000
		<u>1,554,000</u>	<u>1,440,000</u>
4.2.1	Rents	2,500,000	2,100,000
4.2.2	Land deed tax	4,500,000	4,500,000
4.2.3	Other properties	500,000	500,000
		<u>7,500,000</u>	<u>7,100,000</u>
5.2.1	Markets	29,000,000	25,750,000
5.2.2	Slaughtering	650,000	450,000
5.2.3	City disposal, transport and septic cleaning	1,800,000	1,660,000
5.2.4	Water	1,000,000	1,000,000
5.2.5	Electricity	6,500,000	6,050,000
5.2.6	Public transport taxation	350,000	200,000
5.2.7	Meat transport taxation	200,000	400
5.2.8	Meat cold chain taxation	1,000,000	1,000,000
5.2.9	Land technical fees	4,500,000	3,950,000
5.2.10	Health services fees	3,200,000	3,100,000
5.2.11	Public administration fees	100,000	--
5.2.12	Ice factory output	200,000	185,000
5.2.13	Hadajir cinema	--	--
5.2.14	Sales	30,000,000	30,000,000
5.2.15	Agricultural livestock incomes	120,000	40,869
5.2.16	Business taxation	78,620,000	73,386,359
5.2.17	Secretarial fees		
	Others		1,433,641
	Sports		500,000
		<u>182,874,000</u>	<u>170,500,900</u>

\* The exchange rate for Somalia shilling in 1983 was So.Sh. 15 = \$1 (US)

Source: City budget given to PADCO

Listed under the heading of "income tax" i.e., a housing tax, the tax structure seems reasonable: So.Sh. 5.60-10.50 per cubic meter for permanent, solid dwellings, So.Sh. 50 for wooden houses, and So.Sh. 30 for stick houses. The amount collected is more or less in accord with what one would expect. There is no true income tax levied by the city.

Taxes may be inefficiently or erratically collected. Until this year the market tax was collected daily at the city's 24 markets. The city is thinking of converting it to a monthly rental fee to eliminate the number of inspectors needed. In contrast, a weights and measures tax, charged to ensure that calibration is correct on measuring instruments used in the markets, is implemented by merchants bringing their scales to City Hall. This tax is listed as "Other Properties," item 4.2.3 in the budget. For construction permits, a fixed fee of So.Sh. 350 is charged for any building regardless of size, location, or purpose to which the building will be put. Only So.Sh. 1,000,000 are estimated to be collected from this tax in 1983 which seems an under estimate given the rapid rate of construction.

Central Government donations to the city budget include remittance of part of a payroll tax levied on all workers; remittance of a portion of the taxes collected by public sector industries on electricity and water service, and rents collected from Government-built housing.

#### 4. Expenditures

Expenditures may be roughly calculated by three categories:

- Capital projects, receiving 38 percent of the budget, approximately So.Sh. 69,000,000.
- Maintenance and services, receiving 33 percent, approximately So.Sh. 60,000,000.
- Payroll, receiving 29 percent, So.Sh. 53,000,000.

Capital projects for 1983 are listed below:

- New City Hall
- New building for local government policies
- Three new housing blocks of 30 units each for government employees
- Two historic statues
- 100 houses for City of Mogadishu personnel
- Four roads: two tarred, two coral
- A parking lot in the city center

- Widening the airport road
- Two new markets
- Equipping and enlarging the sanitation office
- Installing traffic signs
- Installing street lighting
- Small miscellaneous ones

The Finance Department has almost no modern equipment and lacks such basics as a standardized filing system, simple calculators, typewriters and the like. The Department may work with the United Nations Habitat to purchase better equipment.

#### 5. Overview of Problems and Recommendations

The Finance Department has been making progress in recent years and has been attempting a reorganization of its structures and procedures. Nevertheless, much remains to be done:

- **Lack of a Framework for Investment.** The absence of any overall capital investment strategy for the city makes for erratic investment decisions. A three to five year investment strategy focussed on correcting the most critical problems would be of use.
- **Tax Policy and Structure.** What taxes are collected and the rate established for each type should be reviewed given the changing economic climate and expanding population within the city. An equitable system of taxation should be devised which would allow the city to become largely self-supporting in the provision of basic services.
- **Management and Training.** While there appears to be a sufficient number of people assigned to the Department, the lack of trained manpower is evident. Organized training programs should be considered to enhance overall capacity.
- **Lack of Strict Accounting and Collection Procedures.** The collection system and bookkeeping functions are inadequate. There appears to be disparities between the amount collected by type of tax and the amount which ought to be collected based on a growing population. Record keeping is erratic, such that at the end of the year the Department is unable to say how much money was spent on which projects.

## CHAPTER V

### MOGADISHU MASTER PLAN

The City of Mogadishu does not have a master plan at present. The city is very interested in obtaining an overall plan and discussions are underway with the Italian Government to provide a grant, estimated to be approximately \$1.2 million for the preparation of a master plan. PADCO was asked to review and comment on the terms of reference for the master plan as presently drawn up.

The terms of reference are difficult to judge because they are so general as to make it uncertain as to what is actually contemplated to be done under each category of activity. It suggests for example that the "consultants will look into" city finance, the economy, etc., but does not indicate the depth, purpose, or how the various pieces would be fit together.

The overall impression given by the terms of reference is that the resulting master plan would be a "traditional" plan of the kind done in the 1950's (though this might be an unfair remark without having a chance to discuss the work directly with the Italians). By this is meant that the master plan is likely to be a "needs driven" plan in that it will respond to the perceived needs of the projected population for housing, infrastructure, and facilities. Labor force will be calculated and from that the physical space and layout for future industry and commerce. A master plan map will distribute these spatial requirements in a manner which optimizes the land use pattern.

If indeed this is the case, it will likely be disappointing in a number of respects. This type of master planning essentially presents a picture of what would be an ideal city at the end of the planning period, usually about 20 years in the future. It simply adds up the capital costs of what is required, but does not deal with how the funding is to be mobilized or whether or not the total cost is affordable to the city and the nation.

This type of planning cannot provide the flexibility to handle the unforeseen major event (for example, a major new industry or government facility not originally thought of at the time of planning, or if the population grows more rapidly than the plan estimates).

If it is still possible to discuss the terms of reference with the Italian Government, these issues should be addressed and an effort made to have more specific work requirements set for the consultants. In any case several essential aspects of a master planning program are presently not covered in the terms of reference and should be added.

## A. THE ROLE OF MOGADISHU AS A NATIONAL CITY

Any plan for Mogadishu should start with a clear understanding that the city has an essential role in the national development effort. It is likely that Mogadishu will contain approximately 22 percent of the national population by 1990 and 26 percent by the year 2000. The economy of the city will, therefore, be a significant part of the industrial and commercial sectors of the nation. Mogadishu is the seat of the National Government and, therefore, the master plan will need to consider the future activities of this important source of employment and major user of urban land and infrastructure. The military also maintain extensive facilities in and around Mogadishu which will greatly affect the form of the city.

The present terms of reference do not mention these key institutions or discuss how their policies, future plans and programs must be incorporated into the overall planning process. For example, will the Central Government attempt to decentralize its future facilities outside of Mogadishu or not? What are the military land requirements, and will they eventually be prepared to allow land north of 21 October Road to be urbanized?

## B. THE MOGADISHU METROPOLITAN REGION

The terms of reference do not appear to consider the concept that the urban growth of Mogadishu could be spread out from the core city to form a metropolitan region. A broader study area is required which would consider the potential role of Afgoi and Balad as satellite centers to Mogadishu.

Afgoi had a 1975 population of 12,000 and Balad 10,000. Each is located approximately one half hour driving time from Mogadishu (about 20-25 kilometers) on the only two highway entrances to Mogadishu.

Both towns have the start of an economic base. Afgoi is the site for the ITOP Fruit Processing Plant and a brick factory. In Balad there is the Somaltex textile factory and the Balad Irrigation Project which hires about 1500 workers seasonally.

Each town has piped water supply to stand pipes, well laid out streets, markets, schools, and other basic facilities.

Afgoi appears to be experiencing some population growth, but Balad is reported as having had only approximately 200 persons move in recently. Nonetheless, both towns appear to be logical candidates for increased development as part of a Mogadishu Metropolitan Region.

For example, given the prime location on the entrance ways to Mogadishu, these towns could prove to be logical sites for agro-industries serving the nearby rural areas, storage facilities, transportation sector activities, and decentralized activities operated in conjunction with the Mogadishu Port to relieve congestion in the port area. The towns could also serve as a location for government activities which need to be close to Mogadishu, but do not require center city locations.

It is of the utmost importance to safeguard the road frontage between Mogadishu, and Afgoi and Balad. At present, there is almost no development along these road corridors and, therefore, access is rapid and uncongested. However, it was reported that large land allocations along the roads were being made. It would be most unfortunate if "strip development" were to start along the roads which would congest the highway and increase the travel time. Special steps are required by the appropriate Government authorities to ensure that road access and development are carefully controlled. This should not wait for a master plan, but be undertaken immediately.

In order to facilitate the planning for the Mogadishu Metropolitan Region a mechanism for coordinating the planning for Afgoi and Balad will be required. This need not be formal at first, but perhaps a series of meetings to discuss mutual interests could be arranged.

It will be essential that the Italian master planning effort cover the entire area and result in separate urban development plans for Afgoi and Balad as well as the overall metropolitan regional plan.

### **C. ESTIMATION OF THE CAPITAL RESOURCE POOL**

It is clear that capital resources for urban development in Mogadishu are going to be scarce throughout the planning period. It is for this reason that the "needs driven" planning approach is likely to prove too expensive to be implemented.

The starting point for realistic planning, therefore, is to estimate the likely capital resources which can be made available in Mogadishu during the planning period. The sources of capital which need to be investigated include:

#### **1. Capital Investments from the Central Government Ministries**

Many of the Central Government Ministries invest in Mogadishu and their investment plans will need to be assessed, particularly concerning new facilities and staff housing.

In addition many of the development agencies of the Central Government carry out investment projects such as new roads, health and education, electricity, and water supply. The capital investment plans and programs of these agencies will be critical determinants of the levels of investment which are likely to be mobilized during the planning period.

These investment decisions are made by the ministries and agencies according to national objectives and priorities which means that a general policy decision will have to be made as to the priority of Mogadishu versus other urban centers and rural development.

## **2. International Borrowing**

Foreign exchange requirements will be encountered for most of the development projects in Mogadishu which might be proposed as part of the master plan. Foreign exchange will undoubtedly be scarce during the planning period and, therefore, will be a limiting factor. A national policy decision will be required as to what Mogadishu's share of the available foreign exchange should be and under what terms and conditions. There would be little point in preparing a master plan which would require a disproportionate share of available foreign exchange resources to be allocated to Mogadishu.

## **3. Private Sector Investment Levels**

The private sector is likely to provide substantial capital for investment in Mogadishu, but what levels are likely to be achieved and for what types of investment projects are unknown. The Somalia Development Bank's lending policies with regard to Mogadishu will need to be considered along with likely levels of funding.

The present investment climate in Somalia suggests that there will be an expansion of private investment in the productive industrial and commercial sectors. This will need to be studied. For example, will national policy attempt to distribute private sector industrial investment to centers outside of Mogadishu? In the absence of such a policy it is likely that the comparative advantage of Mogadishu will make it attractive for the substantial majority of all private sector investment.

## **4. Estimate of Local Government Investment and Operating Costs**

The Mogadishu City Government presently has a limited capital investment budget and a limited operating budget. The master plan will need to consider carefully the future investment levels which can be mobilized locally, and what steps the city may be willing to take to increase their resources.

In addition it is extremely important to consider the operating costs of the capital investments made under master plan proposals. Can the city afford the operation and maintenance costs? If not, what steps can be made to improve local operating revenues?

## **5. Household Levels of Affordability**

The determination of standards to be achieved in housing, infrastructure, and facilities in large measure depend on the expected levels of household income to be generated during the planning period. The reason for this is that the user charges for such things as water and electricity must be geared to the affordability of the households to be served.

If the standards of provision are set too high so that households cannot pay for the services, subsidies will be required. If these subsidies are large, they will become a major drain on the resources of the sponsoring agency or the national treasury.

A survey of household income distribution and projections of likely trends should be undertaken early in the plan preparation work. At the same time a socio-economic study of the urban Somali household should be undertaken because the fragmentary evidence suggests that households work within "extended family" formats, and this will affect the entire master plan design particularly those aspects dealing with residential settlement.

All of these capital mobilization issues will affect the standards of spatial layout of the city and the standards of provision of services. Therefore, in order to set reasonable standards, an estimate of capital resources from all sources is required before the physical planners start their work. Only if the capital availability parameters are set in advance can realism be introduced into the planning process.

#### **D. ANALYSIS OF THE URBAN ECONOMY**

The evidence suggests that the urban economy of Mogadishu is very much dependent on the availability of remittance money from abroad. Jammal of the ILO estimates that as much as 40 percent of the purchasing power in Mogadishu is generated from remittances. The industrial employment base in both the public and private sector is very low. Government wage rates are declining rapidly in real terms. The urban economy is very much dependent on commercial activity and trade. This represents a very serious threat to the long-range development of Mogadishu since the urban economy is very vulnerable.

A major investigation of the urban economy is required which generates specific proposals for its strengthening. Such a study is prerequisite for the physical planning effort of the master plan.

#### **E. PLANNING AS A PROCESS AND TRAINING**

The terms of reference for the master plan appear silent on two other critical issues. There is no mention of how the professional consultants and the Town Planning Office of the City are to interact with policy makers, and there is no mention of the building of the capacity of the Town Planning Office through a specific training program.

### 1. Policy Guidance for the Master Plan

As can be seen from the discussion above, the preparation of a master plan for Mogadishu should not be seen as an isolated merely "technical" effort. While the technical work is important, it should be seen as an extension of the policy formation and guidance process. Some form of steering committee will be required which will meet regularly and often with the technical staff.

Representation on such a committee should include senior level persons from:

- The Military
- Central Government Ministries (at least Planning and Finance)
- Major parastatals working in Mogadishu such as water and electricity
- Port and Airport Authorities
- Representatives of the Private Sector
- Representatives of Community Groups

It should be recognized from the beginning that there will likely be conflicts in the objectives of these diverse groups with regard to the appropriate master plan for Mogadishu. Only by bringing them together from the beginning for discussion and consultation with the city can their ultimate support for the master plan be obtained.

### 2. Training

The terms of reference do not indicate that a specific training effort will be made to build local capacity. This would be a serious omission since urban planning is new in Somalia, and most of the personnel involved locally will not have had experience. A formal program of training should be formulated which will have specific time allocated for its implementation and for a work program.

Such a training program should be made available to relevant personnel from the other significant secondary cities such as Kismayo and Hargeisa. The training effort should be designed to facilitate the build up of a national urban planning capacity and not be solely concerned with just Mogadishu.

### 3. Location of the Master Plan Work

The terms of reference suggest that the bulk of the work is scheduled to be done at the consultant's offices in Rome, Italy. For all of the reasons suggested above, this would be a serious error. All the work should be done in Mogadishu in order to facilitate the policy dialogue which is essential and to take maximum advantage of the training opportunity that the effort represents.

#### 4. Reports and Language

The terms of reference should provide for a specific schedule of reports to be prepared by the consultants covering each major set of activities. The first report should be an "Inception Report" prepared approximately two months after the consulting team has mobilized in Mogadishu. This report should set forth the detailed work plan and schedule and identify the major policy issues which will need to be discussed in detail with the various key agencies involved.

Separate reports should be required for each of the basic data studies and analysis. One of the major advantages of doing the master plan work will be the preparation of a strong data base for the city. Considerable attention should, therefore, be given to presenting this data base in a form useful to decision makers.

Early on in the work, an effort should be made to present alternative plan concepts which will highlight the basic choices to be made. This should be done approximately half way through the planning period so that there will be ample time for the Government to study and debate their respective merits.

The Implementation Plan Report is as important as the master plan itself and should be given major emphasis. This report should be available for discussion three to four months before the project is to be completed.

Finally, provision should be made in the consultant's contract for follow-up work with the city for at least six months after all of the reports have been completed. There is a major task, frequently overlooked, in "selling" the master plan to the various implementing groups and assisting them to incorporate the basic master plan proposals into their own work programs.

The language used in the reports will also be of major importance. It is likely that the consultants will wish to work primarily in the Italian language. However, all the major reports (those which will have a useful life after the project is complete) should be translated into the Somali language and several hundred copies be made available. Only if the reports are in the Somali language can they be used by all Government officials including the lower-ranking officials who will be charged with day-to-day administration.

The major reports should also be translated into English to facilitate their use by the international donor agencies. The basic language of the international donors is English and since the donors will continue to play a major role in providing investment capital, it will be important that they can use the master plan reports easily. This will require English language versions.

## **F. MASTER PLAN PROPOSAL EVALUATION CRITERIA**

The proposals which will be submitted based on the terms of reference will be forwarded to the city for review and selection. This is the most important opportunity for the city to ensure that the consultants selected will approach the work in a manner compatible with the city's objectives and interests.

The city should form a committee to review the proposals and be prepared to devote the time it takes to carefully perform a comparative review of all of the proposals submitted. The committee should include representatives of the groups which will be most directly concerned with the planning project. Approximately five persons should be on the review committee in order to ensure a fair evaluation.

The committee should first establish evaluation criteria that will permit a comparative evaluation of the proposals. Each proposal should be individually evaluated using the criteria, usually in the form of a point system, by each of the individuals on the committee. The committee then should meet and compare their individual evaluations of each proposal with that of the other committee members. Normally, two or three of the proposals will be evaluated highest by all committee members, and therefore, the others can be eliminated. The committee can then discuss the remaining competitive proposals to determine that the evaluation has covered all aspects.

Since this type of proposal competition will be a new experience, and since there is no history of urban planning in Mogadishu at present, the city might want to consider obtaining the services of an outside specialist with extensive urban planning experience to act as a technical consultant during the evaluation. Such a specialist could design the evaluation criteria and establish the point rating system to be used by the committee. The specialist could also do an independent evaluation of the proposals to be used as a check against the evaluations of the committee members. However, it is important to recognize that the technical consultant should not have a vote in the selection itself. This function must rest with the local committee alone. Approximately one month would be required of a technical consultant to assist in this review process.

### **1. Form of the Proposals**

The consultant's proposals submitted in response to the terms of reference should follow a set format to facilitate their evaluation. The format should follow along the outline set forth below:

- **Statement of the Situation:** This section should demonstrate that the consultants understand the existing urban development situation in Somalia and Mogadishu. It should show that they understand the urban problems and constraints to be addressed in the master plan.

- **Statement of the Basic Approach:** This section should demonstrate that the consultants have thought through how to approach the problems in a realistic and responsive manner. It is important that they demonstrate that their approach is realistic in terms of capital and management capacities of the city and the Nation, and their approach will result in a plan compatible with local objectives.
- **Statement on the Organization of the Project:** This section should demonstrate that the consultants have a clear organizational plan for the work which integrates the technical work with the policy decision making role of the Government. Also, it should show that they understand the importance of training local personnel and utilizing local professional skills effectively.
- **Statement of the Work Plan:** The proposals should include a detailed work plan which breaks down the overall master plan work into its specific separate tasks to be accomplished including the content of the work to be performed, the time schedule, and level of effort for each task. The "products" to be produced should be specifically identified in terms of reports, maps, presentations, etc. The work plan should demonstrate that all of the tasks fit together in a logical order and move sequentially through time in an integrated manner. It is extremely important that the consultants recognize the time required by the Government for review and discussion of each of the major components of the work.
- **Statement of the Previous Experience of the Firms on Other Assignments:** The consultants should be required to document their experience in urban planning for other countries, especially African countries of a similar economic development level. The committee should request that names and addresses of previous clients of the firms be listed and these references should be checked with their clients in order to ensure that the firms have performed satisfactorily in their other work.
- **List of the Specific Staff to be Assigned to the Mogadishu Master Plan:** The actual team of specialists to be assigned is very important. For each individual, the consultants should present the full resume of education and previous experience. In addition, a personnel plan should be given that shows how the individuals will take responsibility for the individual tasks of work. It should show how long in working months they will be assigned to the work and where the location of their work will be (in Rome or Mogadishu). As a general rule, it is better to have the work done in Mogadishu by individuals who will remain in place for a year or more in order to dialogue with local people and understand the development context. The relevant skills required for the master plan will include urban planners, architects, engineers, sociologists, urban economists, and urban finance specialists.

- **A Statement of the Cost Proposal:** Each consultant should prepare a full cost proposal. This cost proposal should be submitted in a separate envelope at the same time as the technical proposal (items 1-6 above). The Committee should not open the cost proposal until after the technical review has been completed and the most qualified firms identified. At that time cost should be considered as a factor in final selection between otherwise equally weighted firms. The point is not to obtain the "cheapest" services, but to see that the unit costs are reasonable and to evaluate which firm can provide the most services for the money available.

## 2. Establishing the Selection Criteria

The point system adopted for the guidance of the proposal evaluation will need to consider each aspect of the terms of reference; therefore, only general guidelines can be given at this time.

The following general distribution of points as a percentage of the total points might be considered:

- Fifty percent of the total points should be assigned to the staff personnel proposed. The actual staff who will do the work is the most important part of the proposal. The city should state clearly that no substitutions can be made by the consultants within 60 days of submitting their proposals or it will be grounds for cancelling their selection. The points should be given on the basis of the age, experience, and level of effort each individual is to provide (i.e. the long-term staff to be in residence should carry more weight than short-term staff who will only be involved for brief periods of time). The team leader who will be in charge of the project should be given the most points since that person is the key to the success of the master plan. In fact, the team leader of the firm selected to negotiate the contract should be required to come to Mogadishu for an interview prior to signing a contract so that the city can be sure the individual will be satisfactory.
- Thirty percent of the total points should be assigned to the Basic Approach and the Scope of Work proposed by the consultants. The points should be weighted more to the Basic Approach since the specifics of the tasks and schedule are likely to change during the course of the project.
- Twenty percent of the total points should be assigned to the previous experience of the firm and the satisfaction of previous clients. Some weight should be assigned to the age of the firm (total years it has been in business) and the financial resources of the firm to ensure that it has the resources to undertake the project.

Firms that score above 80 points should be considered as potential candidates for the assignment. Firms that are evaluated within five points

of each other can be considered equally qualified. It is these firms of nearly equal standing that should be evaluated again in terms of their cost proposal.

## CHAPTER VI

### THE LAND SUBDIVISION PROCESS

In 1981, the city took over all of the land subdivision work from the Ministry of Public Works. The City Land Office has the responsibility for this program.

Since 1975, there has been the distribution of an estimated 157,000 plots ranging in size from 12 x 12 meters to 20 x 20 meters. Recently a plot size of 15 x 20 meters has been used. There are no records as to how many of these plots have been occupied, but it is clear from a visual inspection that a tremendous amount of construction has taken place on the plots provided to date.

The land subdivision program is the main reason that the city has not been overrun with squatter settlements during this period of very rapid population growth. The city should be commended for its efforts to meet urban growth pressure through this program. Nonetheless, there are many important problem issues with the land program which urgently need to be addressed.

#### A. THE PROBLEM ISSUES TO BE ADDRESSED

The concept that land is a "free good" in Somalia to be used in the collective interest is well established. It is based on the traditional view of Somalia as a nomadic rural society. Therefore, at present the Government sees its role as providing land at very low cost to the people both in rural areas and cities. However, Somalia is a society in transition, and it is clear that urban land is being viewed by individuals as something that has real value. Land held under permanent tenure is rapidly increasing in value. Land at strategic locations within the city is commanding high resale prices. It is reported that land sales near the city center are in the range of Sh. 1,500 per square meter falling on a gradient to So.Sh. 500 per square meter on the outskirts of the city. Meanwhile, the city is providing new plots to all comers generally at the periphery of the city at So.Sh. 3 per square meter regardless of size or location with respect to contemplated major thoroughfares.

The revenues generated by land sales at this So.Sh. 3 per square meter rate provide at best a very modest income for the city, and recently it is reported that some land fees are being waived entirely.

Since there is no money available for basic improvements, the city provides essentially raw land plots to the households. There is no infrastructure provided in the subdivisions. There is no grading or preparation of the plots or road right-of-ways. Subdivisions are prepared according to a number of alternative standard designs without field checks or survey. Public space reservation for schools and markets are arbitrarily included in the subdivisions, but there is no made up reservations planning for or major community facilities or industrial areas.

The circulation system is a standard grid of right-of-ways which are set at either 20 meters or more recently 30 meters. This means that the circulation system consumes 50 percent or more of the total land area. In residential areas a norm of 20-23 percent of the land area for circulation would be considered desirable.

Administratively the system works in a relatively ad hoc fashion with thousands of applicants besieging the Land Office to register to get plots. The Land Office is under-staffed and unable to check applicants as to their need, income level, or even whether or not they own other land in the city. Periodically the Land Office has to stop taking applications while they catch up with their backlog. It is apparent that this system allows opportunity for abuse of the procedures and intent of the program. Examples of households who have been able to assemble two or more plots are visible through field inspection. Prime sites have usually ended up in the hands of wealthy households who have been able to build houses in the range of So.Sh. 1.5 to 2 million on the plots, originally obtained at So.Sh. 3 per square meter.

In summary the city has managed to maintain a program scale essential to meet the needs of the growing population, although they report that thousands of households are still awaiting plot allocations. However, the city desperately needs to reorganize the program to make it more equitable in meeting the needs of low-income people and to establish a system with minimum infrastructure provision. This needs to be accomplished without slowing the rate of allocation, otherwise uncontrolled squatting will increase.

## **B. RECOMMENDATIONS FOR LAND SUBDIVISION PROGRAM REORGANIZATION**

Reorganization of the land subdivision program should be a very high priority of the city. It should not await the preparation of an overall master plan. Outside technical assistance would be extremely helpful in undertaking the recommendations discussed here:

### **1. Prepare An Overall Land Use Plan**

The land subdivision program will have to be continued for years to come. It is likely that at least another 200,000 plots will be needed by the year 2000. In addition since the city can at present only grow on the east and west edges of the city, large land areas will need to be allocated to industrial, major commercial, and major community serving facilities. As an approximate rule of thumb, non-residential uses will require as much land as the residential areas.

This means there is an urgent need for an overall concept plan for the development of the edges of the city. This should be done immediately and quickly without waiting for the master plan. When the master plan is developed in two or three years time, the preliminary concept plan for the city edges can be revised and modified.

The kind of concept plan needed is one that will identify the best locations for different residential plot sizes, major circulation system, and locations for non-residential uses. The sequencing or phasing of the allocation of land has to be planned so that the provision of infrastructure can be undertaken at least cost and in an efficient manner.

Within the areas allocated for residential purposes, a variety of plot sizes should be planned which minimize the frontage of the plots to their depth. In Somalia the tradition is for square plots, but this is the least efficient system in terms of the cost of infrastructure. For example, a system of plots based on a 1:2 ratio of frontage to depth will ultimately be only half as costly in terms of infrastructure per plot as a 1:1 ratio. This is simply because twice as many plots can be served with the same infrastructure network. The present system of small blocks (approximately 120 meters long) should be revised to allow for longer blocks of say 160 meters with a series of walking paths between blocks rather than full streets.

A circulation system hierarchy needs to be established instead of relying on just one wide overall street standard. A minor circulation system based on pedestrian traffic can be accommodated with right-of-ways of four meters (or less). This standard allows for access by emergency vehicles if needed. Minor streets providing for regular vehicle access with parking on one side of the street can be accommodated with 10 meter streets. Only major circulation for access to entire neighborhoods needs to be in the range of 20 meters. This level of circulation should be used when bus routes are planned. Large right-of-ways, say 30 meters, are only required for streets which will serve a city wide circulation system linking neighborhoods. By establishing a hierarchy of streets and planning them within the context of overall city needs, substantial savings can be made in the total land area allocated to circulation.

The type of concept plan suggested here need not require substantial time or resources to prepare, particularly since it will be revised during the master plan work. If aerial photographs are available, a simple concept plan should be developed with two or three person months of effort.

Four site plans have been prepared which show the implications of the selection of road right-of-way widths and plot sizes on the total yields of plots per hectare. These site plans are not recommendations for Mogadishu but are presented for illustrative purposes. A specific design study will be needed in order to produce relevant proposals for the city.

Site Plan 1 shows the present 15 by 15 meter plot layout system of the city. It yields 20.16 plots per hectare and has 47.9 percent of the total land area in circulation.

Site Plan 2 uses the 15 by 20 meter plots with the 30 meter roads now being used in some sections of the city. This site plan yields only 12.24 plots per hectare and has 54.95 percent in circulation.

Site Plan 3 shows what would be possible using a 10 by 20 meter plot with 10 meter primary streets and 6 meter secondary streets. This site plan yields 33.45 plots per hectare and has only 20.14 percent of the site in circulation. This means an increase of 66 percent in the yield of plots per hectare.

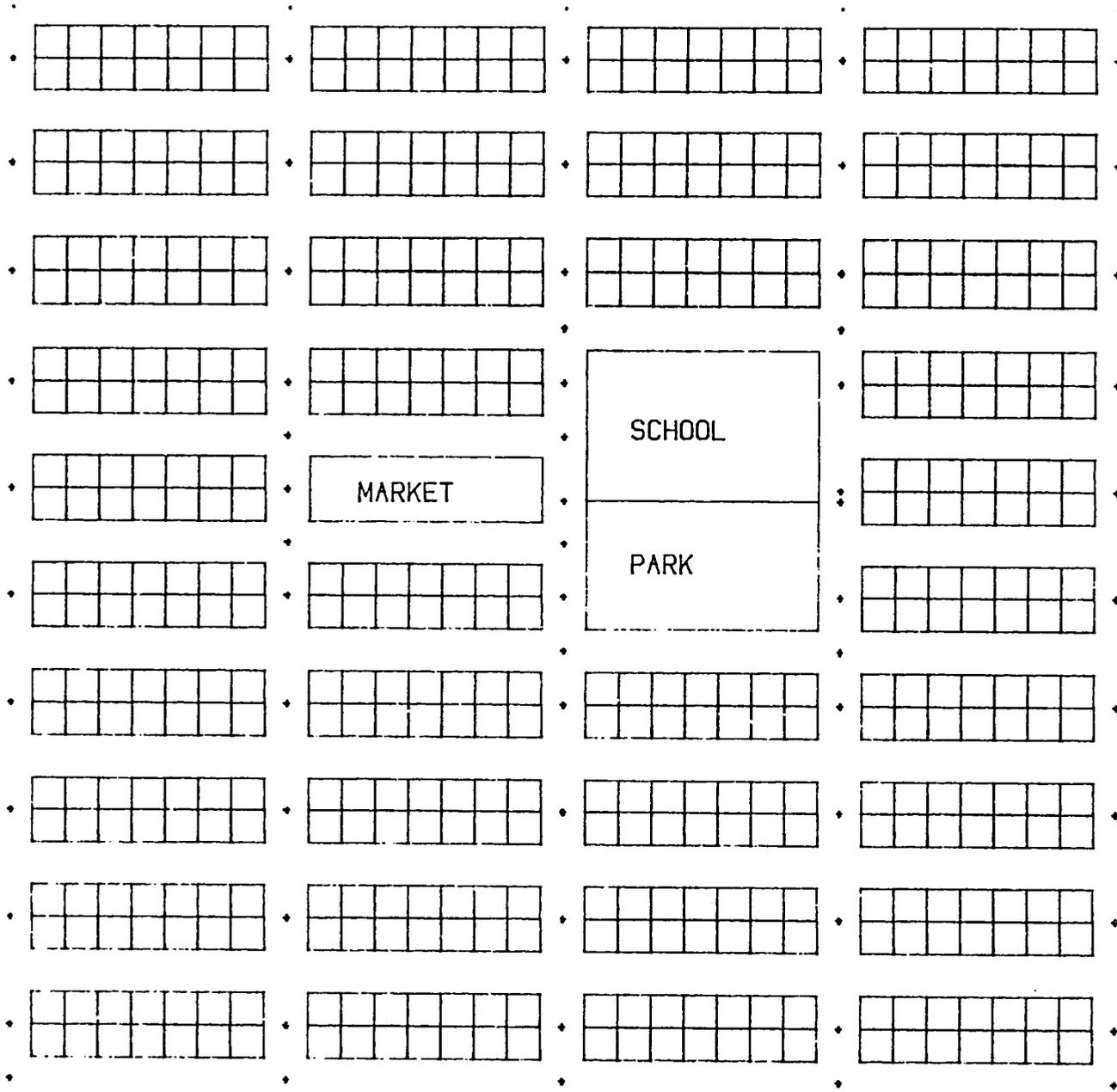
Site Plan 4 shows a more complicated, hypothetical distribution of plots and circulation. The total yield is 31.1 plots per hectare with 20.29 percent in circulation, but a variety of plot sizes are introduced. This would be more in line with the kinds of recommendations appropriate for Mogadishu as it would permit differential pricing of the larger plots on the primary roads.

All of these illustrative site plans were computer generated. Using the PADCO/Bertaud computer model permits the exploration of a wide range of alternative designs quickly and their costing under different infrastructure standards.

## **2. Establish Plot Sizes**

Within the framework of the overall concept plan, a series of plot sizes should be established. Obviously the smaller the plot size, the lower the cost of infrastructure. On the other hand, there is a tradition of large plot sizes in Somalia (200 square meters and over). This suggests the need to study what is the minimum acceptable plot size in Somalia. This can be done by preparing some typical architectural designs which demonstrate that an acceptable house can be built on the plot and still provide adequate open space and needed leaching areas for pit latrines. This is made more complicated because of the social traditions of the Somali family which requires the ability to accommodate a large family size including relatives who are on extended visits to the city.

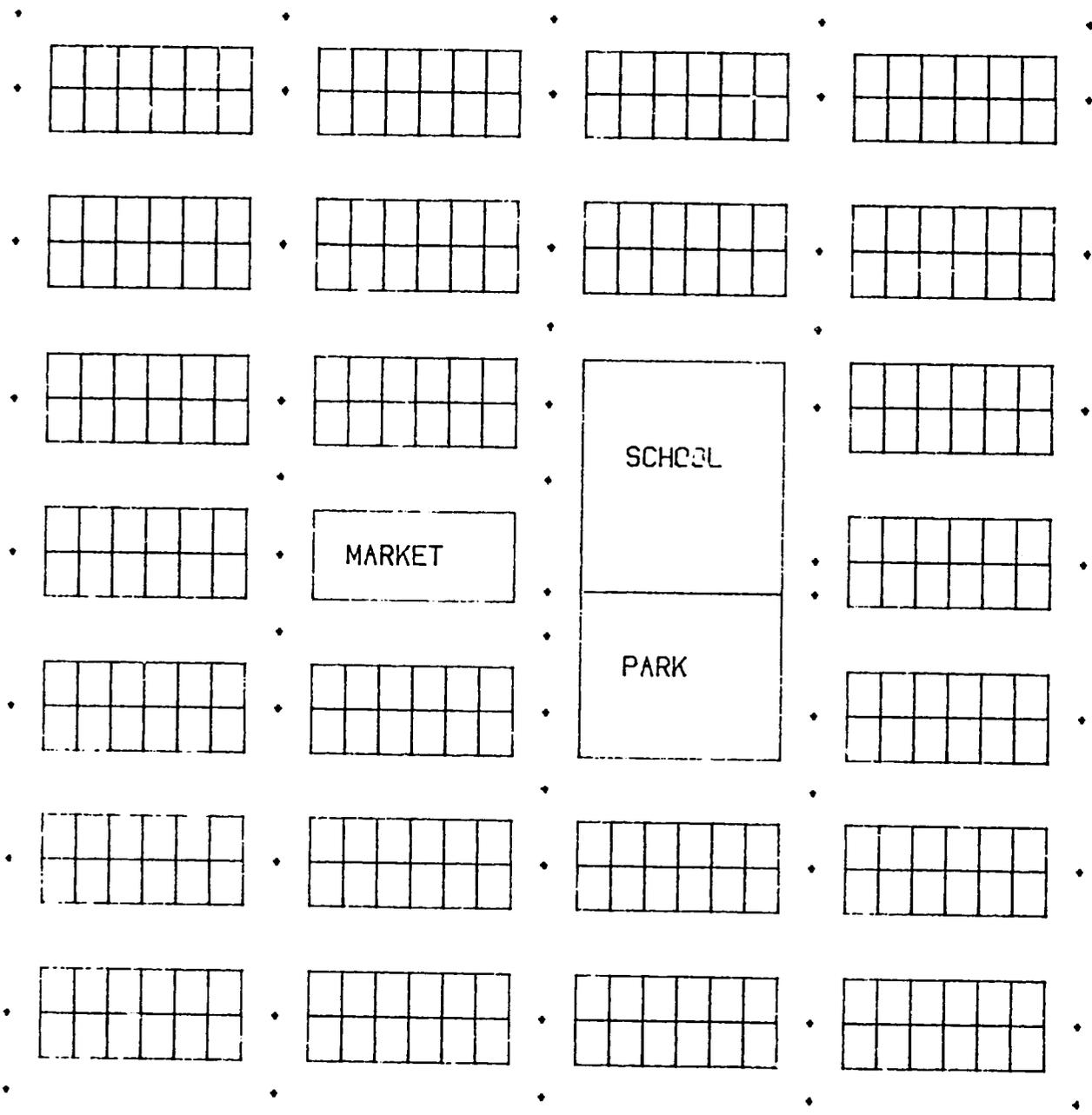
A range of plot sizes should be considered to meet the different income and social groupings of Somali families. This will need study.



SITE PLAN 1

15 X 15 METER LOTS  
 20 METER STREETS  
 20.16 LOTS/HECTARE

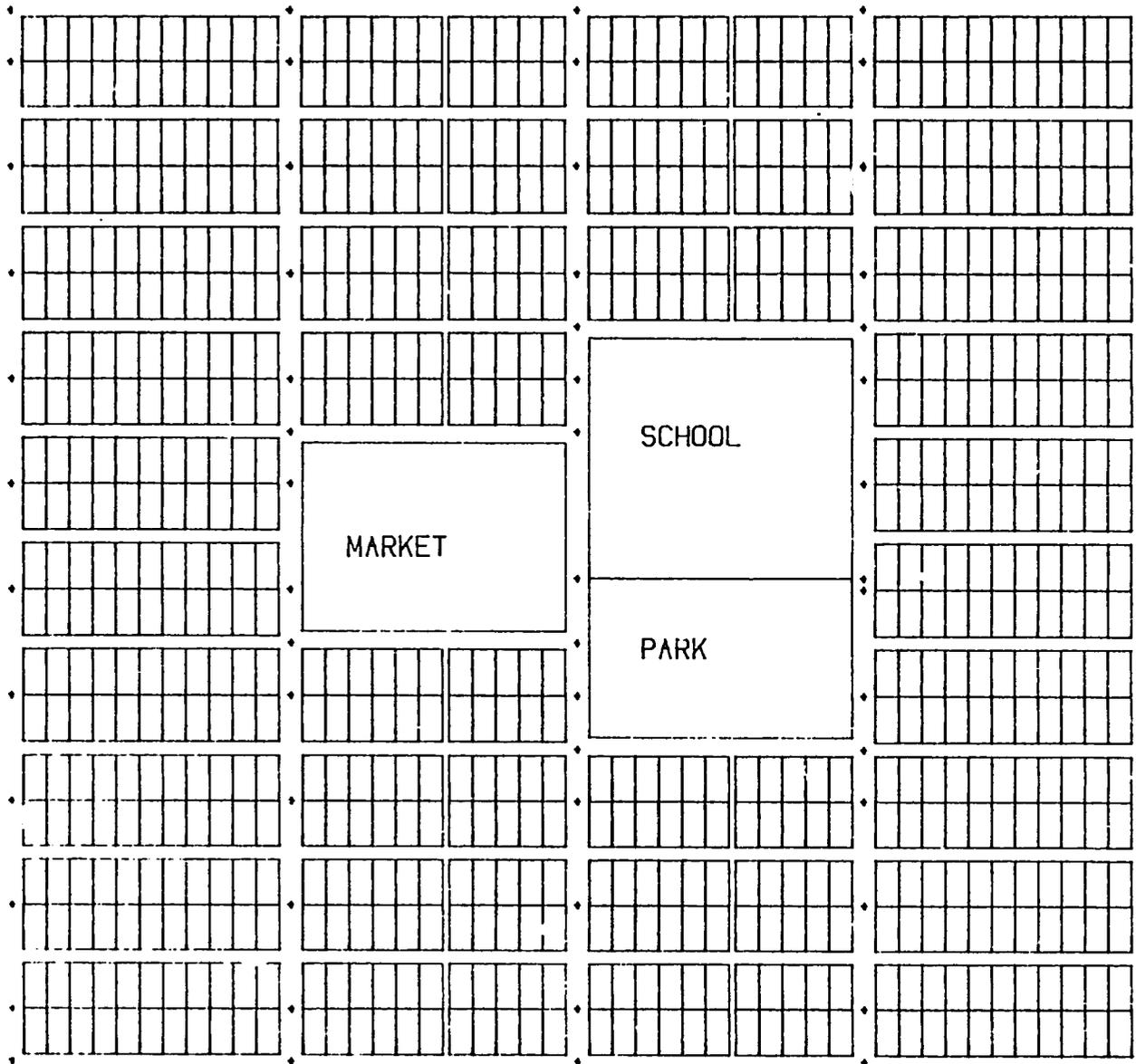
PLOT AREA	PLOT NUMBER	% OF PLOTS	TOTAL AREA	%
225.00	504	100.00	113400	
TOTAL	504	100.00	113400	
TOTAL RESIDENTIAL=			113400	45.38
TOTAL RESIDENTIAL=				45.38
COMMERCIAL				
COM1			3150	
TOTAL COMMERCIAL =			3150	1.28
EDUCATIONAL				
SCH1			7350	
TOTAL EDUCATIONAL			7350	2.94
PARKS AND PLAYGROUNDS				
PRK1			8300	
TOTAL PARKS =			8300	2.52
TOTAL CIRCULATION=			119800	47.92
TOTAL AREA =			250000	



SITE PLAN 2

15 X20 METER LOTS  
 30 METER STREETS  
 12.24 LOTS/HECTARE

PLOT AREA	PLOT NUMBER	%OF PLOTS	TOTAL AREA	%
300.00	288	100.00	86400	
TOTAL	288	100.00	86400	
TOTAL RESIDENTIAL=			86400	% 38.73
COMMERCIAL				
COM1			3600	
TOTAL COMMERCIAL =			3600	% 1.53
EDUCATIONAL				
SCH1			8450	
TOTAL EDUCATIONAL			8450	% 4.02
PARKS AND PLAYGROUNDS				
PRK1			8750	
TOTAL PARKS =			8750	% 2.87
TOTAL CIRCULATION=			129000	% 54.85
TOTAL AREA			235200	



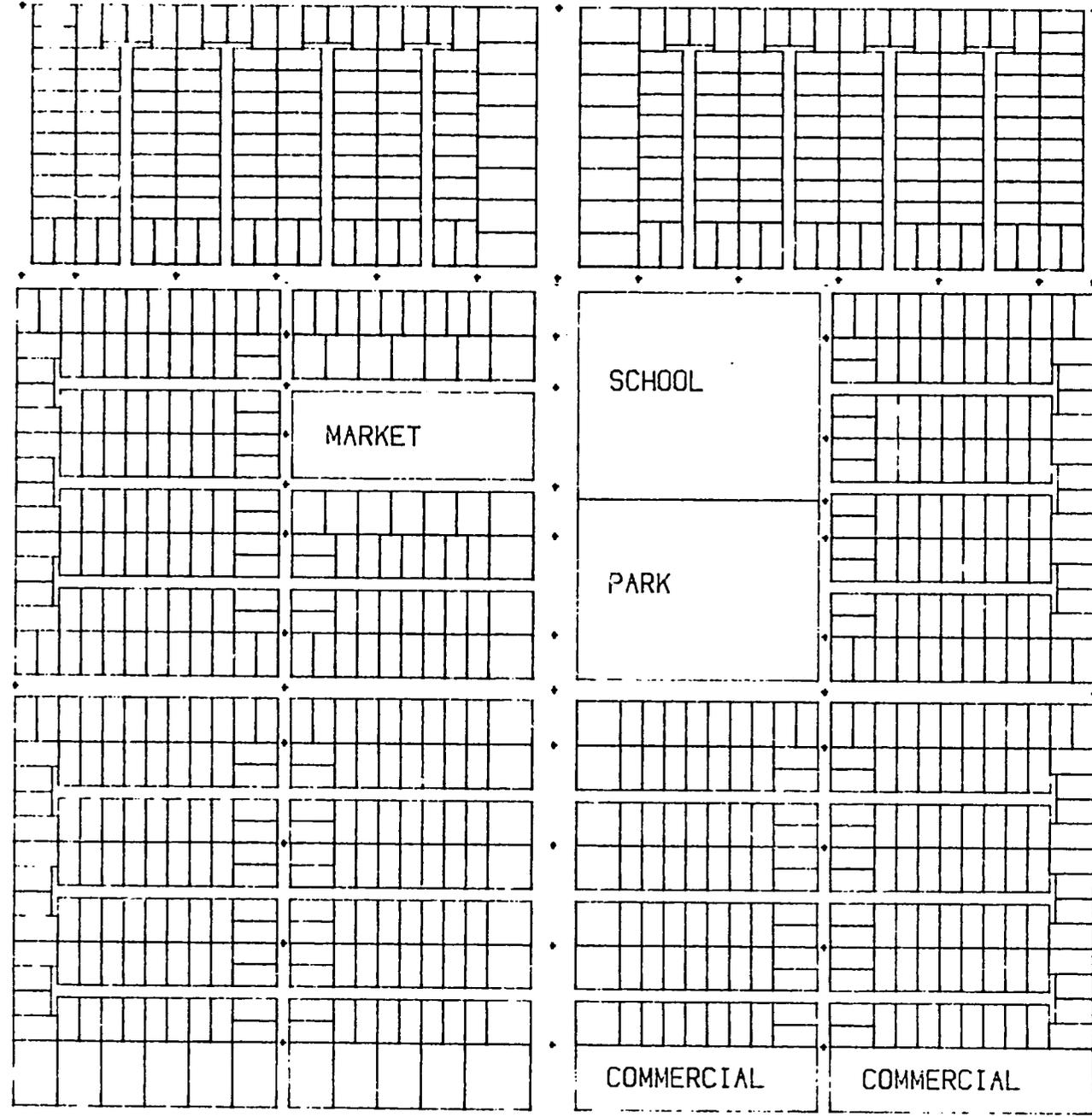
### SITE PLAN 3

10 X 20 METER LOTS  
 10 M. PRIMARY RDS.  
 6 M. SECONDARY  
 ROADS  
 33.45 LOTS/HECTARE

PLOT AREA	PLOT NUMBER	% OF PLOTS	TOTAL AREA	%
200.00	748	100.00	149800	
TOTAL	748	100.00	149600	
				% 68.92
TOTAL RESIDENTIAL=			149600	% 68.92
COMMERCIAL				
COM1			9268	
TOTAL COMMERCIAL =			9268	% 4.14
EDUCATIONAL				
SCH1			11865	
TOTAL EDUCATIONAL			11865	% 5.31
PARKS AND PLAYGROUNDS				
PRK1			7797	
TOTAL PARKS =			7797	% 3.49
TOTAL CIRCULATION=			45032	% 20.14
TOTAL AREA =			223580	

SITE PLAN 4

LOTS: 93% 10X20 M.  
 7% LARGER SIZES  
 STREETS: 6 M. -30 M.  
 31.10 LOTS/HECTARE



PLOT AREA	PLOT NUMBER	% OF PLOTS	TOTAL AREA	%
200.00	858	82.58	131600	
212.75	80	10.04	17020	
300.00	12	1.51	3800	
400.00	34	4.27	13800	
441.08	2	.25	882	
800.00	10	1.25	8000	
900.00	1	.13	900	
TOTAL	797	100.00	173802	
				Σ 87.72
TOTAL RESIDENTIAL=			173802	
				Σ 87.72
COMMERCIAL				
COM1			3300	
COM2			3800	
COM3			4400	
TOTAL COMMERCIAL =			11300	
				Σ 4.41
EDUCATIONAL				
SCH1			10450	
TOTAL EDUCATIONAL			10450	
				Σ 4.08
PARKS AND PLAYGROUNDS				
PRK1			9130	
TOTAL PARKS =			9130	
				Σ 3.58
TOTAL CIRCULATION=			51852	
				Σ 20.23
TOTAL AREA =			258934	

### 3. Establish a Minimum Standard of Infrastructure Provision

The program should provide for a minimum standard of infrastructure provision depending on the type of plots to be provided. The absolute minimum would be basic grading of the right-of-ways with accompanying drainage systems and the provision of water standpipes at reasonable intervals within the subdivision. Higher standards can be developed for plots to be provided to higher income groups and for non-residential purposes. The selection of standards will, of course, depend on cost recovery to allow the city to install the infrastructure.

### 4. Cost Recovery Program

The present system of selling temporary tenure for So.Sh. 3 per meter fails to generate sufficient revenues to provide infrastructure of any standard. This means that the cost of infrastructure will eventually fall on the city if and when the city can provide it. Meanwhile the households in the new areas suffer from lack of water and roads. Bus transportation will be irregular and expensive because of the lack of graded roads. The construction of the houses on ungraded plots may result in faulty construction practice and create future problems with drainage and circulation.

Also, the use of a standard cost of So.Sh. 3 per square meter regardless of location and size of the plots provides a "wind-fall profit" to those households which can afford large plots and influence the allocation of prime locations. Enormous capital gains are apparently common.

There is a need to come up with a system that preserves the principle that low-income people need plot allocations at prices they can afford, yet provides for a high enough revenue to the city to provide basic infrastructure to the areas.

It is likely that this could best be done by establishing a system of differential pricing of the land. For example, a minimum plot size could be established which would carry a minimum price per square meter which was affordable to low income households, but if the applicant wanted a plot that was larger than the minimum, the price for the "extra" plot size would be charged at a higher price.

The costs of the Land Office should be included in the overall costing of the program of plot distribution and cost recovery. This additional financing is necessary to obtain the range of technical skills and services required. For example, the ability to survey the new subdivisions is essential. At present, this function rests with the City Public Works Office, but a separate capacity should be established in the Land Office. A system needs to be worked out between Public Works and the Land Office to cover the provision of infrastructure and grading.

The application procedure needs to be revised to allow the differentiation of the households by need and income and the kind of plot requested. An improved system of transferring the tenure and registering the plots for future taxation is also needed.

**APPENDIX I**

**URBAN POPULATION PROJECTIONS**  
**PREPARED BY GEORGE CLARKE (Consultant)**  
**United Nations Centre For Human Settlement**  
**September 1981**

TABLE AI-1  
HIERARCHY OF CITIES AND TOWNS, BY POPULATION

CITY OR TOWN	POPULATION ESTIMATES AND PROJECTION (000)			
	1968	1975	1981	1986
<b>GROUP I Over 50,000</b>				
Mogadishu	172	350/380	500/550	600/650
Hargeisa	62	63/90	100/150	150/200
Burao	18	37/45	50/55	55/70
Baidoa	15	31/45	50/55	55/75
Kiaimayo	18	30/35	35/50	45/55
Belet Wein	na	15/25	50/55*	45/55
<b>Totals Group I</b>	<b>290 to 300</b>	<b>526 to 600</b>	<b>785 to 910</b>	<b>950 to 1,105</b>
* Swollen by refugees and defense activity, Belet Wein nevertheless is well located for growth.				
<b>GROUP II between 20,000 and 50,000</b>				
Jowhar		20	35/40	40/50
Afgoi		12	25/35	40/50
Berbera		12	25/35	30/40
Lugh		6	35/40*	30/40
Merca		22	25/35	35/40
Hoddur		3	20/25*	25/30
Galkayo		12	15/20	25/30
Brava		7	20/25	25/30
Jamame		12	20/25	25/30
Balad		10	15/20	20/30
Bardere		6	15/20	20/25
<b>Totals Group II</b>		<b>122 to 140</b>	<b>250 to 320</b>	<b>315 to 380</b>
*Lugh & Hoddur are currently swollen by refugees and defense activity.				
<b>GROUP III between 10,000 and 20,000</b>				
Erigavo		6	10/15	15/20
Koryole		10	10/15	10/15
Bosaso		11	10/15	15/20
Garoe		3	10/15	15/20
Gardo		6	10/15	15/20
Bulo Burti		7	10/15	15/20
Jelib		7	10/15	15/20
Eyl		7	10/15	15/20
Borama		6	10/15	15/20
Bur Akaba		6	5/10	10/15
Wanle Wein		6	5/10	10/15
<b>Total for Group III</b>		<b>75 to 85</b>	<b>100 to 140</b>	<b>120 to 190</b>
<b>GROUP IV between 5,000 and 10,000</b>				
Dinsor		5	8	5/10
Dusa Mareb		4	4	5/10
Wajid		4	4/5	5/10
Gabiley		3	3/5	5/10
El Bur		3	3/5	5/10
Las Anod		3	3/5	5/10
Bohotleh Wein		2	2/5	5/10
Boale		2	2/5	5/10
Garba Harre		2	2/5	5/10
Obbio		2	2/5	5/10
Adale		0.4	1/5	5/10
<b>Total for Group IV</b>		<b>25 to 30</b>	<b>34 to 50</b>	<b>55 to 80</b>

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TABLE AI-2  
URBAN AS PERCENTAGE OF NATIONAL POPULATION

NATION	Urban Population (000) and Percent of Estimated Nation Population		
	1975	1981	1986
	3,722	5,000	6,000
Mogadishu	380 10.2%	525 10.5%	650 10.8%
Hargeisa )	174/240	285/360	350/450
Burao )	4.7%	5.7%	5.8%
Baidoa )	to	to	to
Kisimayo )	6.4%	7.2%	9.0%
Balet Wein)			
GROUP II			
11 towns Nos. 7 to 17	122/140 3.3% to 3.8%	250/320 5.0% to 6.4%	315/380 5.25% to 6.3%
GROUP III			
11 towns Nos. 18 to 28	75/85 2.0% to 2.3%	100/140 2.0% to 2.8%	120/190 2.0% to 3.2%
GROUP IV			
11 towns Nos. 29 to 39	25/30 0.75%	34/50 0.7% to 1.0%	55/80 1.0% to 1.3%
TOTALS	20.9% to 23.5%	23.9% to 27.9%	24.9% to 30.6%

**APPENDIX II****SOMALIA: COMMERCIAL PUBLIC ENTERPRISES  
(AS OF JUNE 1, 1979)**

TABLE AII-1  
 SOMALIA: COMMERCIAL PUBLIC ENTERPRISES  
 (As of June 1, 1979)

<u>PARENT MINISTRY</u>	<u>ENTERPRISE</u>
Agriculture	National Banana Board (NBB) Agricultural Development Corporation (ADC) ONAT (Tractor and Farm Machinery Rental) Somali - Libyan Agricultural Development Company (Somalia 51, Libya 49)
Fisheries and Marine Transport	Los Koroh Fish Factory SOMAL - FISH National Shipping Agency Somali Ports Authority Somali Shipping Line (Somalia 51, Libya 49) Somali Forwarding Agency
Industry	Cigarettes and Matches Factory Mogadishu Milk Factory Sugar Factory (SNAI) SOMALTEX Kismayu Meat Factory Oil Mill Factory INCAS (Italy 49; NBB 36; SDB 15) ITOP Fruit Processing <sup>1</sup> Hides and Skins Factory Iron and Foundry and Mechanical Workshop Flour and Pasta Factory <sup>1</sup> Afgoi Brick Factory <sup>1</sup> Oil Refinery
Commerce	Somali Fish Trading Agency National Trading Agency (ENC) National Petroleum Agency National Agency for Building Materials Hides and Skins Agency Agency for Textiles and Household Appliances
Finance	State Insurance Company of Somalia (SICOS) Central Bank of Somalia Commercial and Savings Bank of Somalia Somali Development Bank (SDB)
Health	ASPIMA (pharmaceuticals) Social Security Fund of Somalia (CASS)
Information	State Printing Agency
Public Works	National Electric Energy Authority (ENEE) National Agency for Construction Somali Consulting and Engineering Agency
Transport	Trading Agency for Vehicles and Spare Parts Somali Airlines National Transportation Agency
Water and Minerals	Mogadishu Water Agency
Presidency	National Agency for Tourism and Hotels

<sup>1</sup> Under supervision of Somali Development Bank.

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**APPENDIX III**  
**MOGADISHU TAXES BY BUDGET LINE NUMBER**

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## MOGADISHU TAXES BY BUDGET LINE NUMBER

## 1.2.1 Livestock Market (Tax and Revenue Office)

Camel - 100 Sh.	50 Sh.	100%	
Cow - 111 Sh.	35 Sh.	217%	57%
Goat - 21 Sh.	7 Sh.	200%	

The tax is collected on a daily basis at the market when an animal is sold (There is one major livestock market in the city.)

## 1.2.2 License Taxes (Tax and Revenue Office)

There are five categories of taxes depending on size, location and type of service offered.

- 1,500 So.Sh./year
- 812
- 595
- 410
- 182

Taxes are levied on shops, tea shops, drinking establishments, etc. and on trucks and cars and coal (1Sh./quintal). Taxes are charged at the time of licensing and thereafter for each year in operation.

## 1.2.3 Cinema and Other Entertainment (Tax and Revenue Department)

Cinemas - 5 percent revenues, collected every ten days  
 Theatre and Stage events - 20 percent of gross receipts any time  
 Sports - 10 percent of gross receipts at every event

## 1.2.4 Electricity ("Other Revenues and Finance" Department)

10 cents per kilowat; all houses are supposed to be metered and all meters are supposed to work.

## Income Taxes

## 2.2.1 Housing Tax (Tax and Revenue Office)

There are six categories of taxes, four for more sturdy buildings, those made of bricks or stones on permanent lands, and two categories for "temporary" land structures:

1st - Per cubic meter of house you charge 7 cents x 150 (i.e. 10.50 Sh./cubic meter)

These houses are in the best location relative to downtown and are immediately adjacent to roads.

2nd - Cubic meter of built house x 125 x 7 (i.e. 8.75 Sh./cubic meter)

3rd - Cubic meter x 100 x 7 cents (i.e. 7 Sh./cubic meter)

4th - Cubic meter x 80 x 7 cents (i.e. 5.60 Sh./cubic meter)

A flat fee is charged for stick houses:

5th - Wood house, 50 Sh.

6th - Stick house - 30 Sh.

#### 2.2.2 Lease Tax (Tax and Revenue Department)

Nothing is listed in this column as it is also recoded in 4.2.2. This tax is the land office tax of \_\_\_ Sh. per m<sup>2</sup> for sale of new plots.

#### 2.2.3 Other Land Taxation

Mogadishu does not have other forms of land taxation; thus this category is blank.

#### Transfer Taxes

#### 3.2.1 Fines and Penalties and Compulsory Transfer ("Other Revenue" Department)

Fines and penalties are levied for building without a permit, throwing trash in the streets, etc. No fixed amount is specified for the fine, the inspector may charge what he wishes.

A compulsory transfer fine is levied on a person selling his house if he is in arrears on taxes. The fine is 20 percent of the past due tax bill, plus the actual taxes owed.

### 3.2.2 Voluntary Transfer

Details on this tax unknown.

#### Property Taxes

### 4.2.1 Rents (collected by the Public Relations Office in the Mayor's Office)

These are rents collected monthly from tenants in government-built housing. Rent is from 250 Sh. to 450 Sh.

### 4.2.2 Land Deed Transfers (collected by the Land Office)

This is So.Sh. 3/m<sup>2</sup> of land charged on the sale of land for development. This is the biggest undertaxed item in the city, besides taxes on the resale of land.

### 4.2.3 Other Properties (Marketing Department)

This is a charge for balancing merchant's scales (So. Sh. 30 per scale) and for checking the measuring instruments which sellers use (10 Sh. per measure) when selling grain, etc. The merchants bring their equipment to the Mayor's office--it is not checked in place--for verification that they are using the proper weights and measures.

#### Market Taxes

### 5.2.1 Markets

There are two categories of tax:

1. For a stall inside the market - 7 cents per m<sup>2</sup> per day
2. For space around the market - 50 cents per day

This is collected daily from 24 markets. The city is considering changing collection to once a month. 82-83 rise because of increase.

### 5.2.2 Slaughterhouses (Marketing Department)

Camels - 15 Sh. per head

Cows - 8 Sh.

Goats - 2 1/2 Sh.

5.2.3 Trash Collection and Septic Tank Cleaning (Tax and Revenue Department)

One hugh container - clearing trash out of - 300 Sh.  
Cleaning a septic tank - 1st category - 100 Sh.  
2nd cateogry (institutions) - 45 Sh.  
3rd - for commercial establishments 30 Sh. (but this is collected as part of the license fees for shops).

5.2.4 Water

5 Sh. installation charge for a met r (the National Water Agency ENEE collects the money from actual metered use).

5.2.5 Electricity (Transfer from National Government)

This is a transfer from the Central Government to the City of Mogadishu. The National Government collects 2 Sh./kilowatt, of which 10 cents is given to the City.

5.2.6 Public Transportation Tax ("Other Revenues" Department)

20 Sh. a day are collected from every taxi and bus operating in the city. After this month, the Finance Department wants to change to collection every 10 days.

5.2.7 Meat Transport Tax (Marketing Department)

This is a tax paid for moving meat from the slaughterhouse to the market:

Camels - 5.5 Sh.

Cows - 3.5 Sh.

Goats - 1.5 Sh.

5.2.8 Meat Cold Chain Tax (Marketing Department)

This is not in effect anymore, even though listed as bringing in an estimated 200,000 So.Sh. for this year.

5.2.9 Land Technical Fees (Land Office)

Construction permits - a fixed fee of 350 So. Sh. is charged for any building regardless of size, location or type of purpose to which the building is to be put.

5.2.10 Health Services Fees

For getting vaccinations and health certificates to go abroad -110 Sh.  
for an eye exam - 25 Sh. For inspection of business premises -  
15 Sh.

5.2.11 Public Administration Fees (Social Department - Farah)

For identity cards - 50 Sh.  
Birth and death certificates - 30 Sh.  
Marriage licenses, etc.

5.2.12 Icar Factory Output

Nothing indicated in budget-I

5.2.13 Hadajir Cinema - nothing indicated in budget

5.2.14 Sales Tax

There isn't one

5.2.15 Agricultural Livestock Incomes

This is one of those standard line items which Mogadishu doesn't use

5.2.16 Business Taxes (Commercial Department)

This is tax on sugar, flour and flour products like macaroni, and rice. The government receives these staples from the production mills or farmers and sells them to middlemen or merchants. It is a tax levied on a fixed price for the sale of these items fixed by the District Government (Mogadishu prices are lower, for instance, than those in Hargeisa.), levied after a reasonable profit is figured in on the cost of the item.

Tax on sugar is 2.32 percent

Tax on rice is 15.64 percent

Tax on macaroni is 29.4 percent

Most other flour products - 8-9 percent

5.2.17 Secretarial Fees

When the city purchases goods from a merchant, it gives the seller a voucher for payment. When the merchants come to redeem the voucher, they pay 1 percent of the bill for secretarial processing fees.

## APPENDIX IV

PROFILES OF POVERTY IN SOMALIA  
PREPARED AS PART OF  
"SOMALIA: A SOCIAL AND INSTITUTIONAL PROFILE"  
THE AFRICAN STUDIES CENTER  
BOSTON UNIVERSITY  
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(Reprinted from the Original)

## PROFILES OF POVERTY IN SOMALIA

### ESTIMATES OF POVERTY IN SOMALIA

In recent years, several attempts have been made to identify those groups of Somali residents most affected by extreme poverty. They reach conflicting conclusions about who are the poor and wildly varying estimates of the proportion of population so afflicted.

The first study was by ILO/JASPA, "Economic Transformation in a Socialist Framework: An Employment and Basic Needs Oriented Development Strategy for Somalia," Addis Ababa, 1977 and further refined in a paper by Michael Hopkins, "Somalia and Basic Needs -- Some Issues," ILO/WEP 3-32/WP.8, Geneva, 1978. These estimates, based on the Multipurpose Household Pilot Survey in Middle Shabelle Region, First Round, Nov. 1975, Second Round June-July 1976, conclude that 49 percent of nomads, 67 percent of settled rural dwellers, and 42 percent of urban residents had real incomes (both own production and cash purchases below an appropriate poverty line.

Norman Hicks at the World Bank in "Poverty and Basic Needs in Somalia," IBRD, 1978 (mimeo) recalculated the poverty line and made adjustments to the Middle Shabelle Survey and concluded that it would be "safe to say that 65 percent of the population live below the poverty line" (p. 3). His calculations suggest that some 70 percent of both nomads and farmers fell below the line while the figure for urban families was 42 percent. He suggested that the finding that farmers and nomads had similar average real incomes went against the accepted notion that nomads were generally the poorest.

A third, and more ambitious study of poverty in Somalia was undertaken by IFAD in 1979 (Special Programming Mission to Somalia, Rome 1979 Annex to Chapter 2). After examining the Middle Shabelle surveys on which the other reviews were based, the IFAD mission concluded that the surveys were of little use because 1) they defined income classes inappropriately, 2) were confined to cash expenditure and thereby ignored the greater part of rural consumption which is from own non-marketed production, and 3) contained major internal inconsistencies such as low meat productions and high offtake rates. IFAD imputed animal offtake rates and crop yields from newly available livestock and acreage figures. Valuing both subsistence and marketed production at uniform market prices, average animal per capita income of nomads was estimated to be SoSh 900 and that of settled farmers to be SoSh 190. With little discussion of this enormous difference, making nomads almost five times as well off as farmers, the report concludes only that "the settled rural population depending on crop cultivation is clearly worse off than the nomadic population depending on livestock . . ." (p. 23). There is clearly a problem with the valuation of subsistence livestock products, particularly milk for which there may be no market in pastoral areas, at the same relative prices as apply in urban markets where the prices for livestock products are high relative to those for grains.

The IFAD mission goes on to discuss inequality within groups and arbitrarily assumes the poverty line to be equivalent to 60-70 sheep per family for nomads and 2.0 hectares per capita, or 10 hectares per family for settled agriculturalists. Then, assuming that the distribution of assets is

Prepared by [illegible]

quite equal among nomads, it concludes that "nearly all of the nomads may ... be expected to enjoy incomes above the poverty line" (p. 42). On the other hand, about 75 percent of farmers are found to be poor according to these estimates with the regional incidence of poverty ranging from 70 percent in Lower Shabelle to 85 percent in West Galbeed. Further analysis of pastoral incomes implied by the regional distribution of animal holdings would suggest that some 42 percent of nomads would also be poor, although this conclusion was not drawn by the IFAD mission. The report does not cover urban incomes.

Still another attempt to summarize the evidence on poverty, its level, incidence, and geographic distribution was made by Clark University (Eastern Africa Country Profiles: Somalia, Worcester, MA, Program for International Development, Nov. 1980). Relying on the IFAD study, the Middle Shabelle survey, IBRD and ODA country-level data, and informed by a classification suggested by Aronson (Draft copy, "The Social Impact of Agricultural Development" USAID) this study differentiates the population into four groups -- agents of the state, rural wage workers, the mobilized rural producers, and the residual masses -- and describes three kinds of poverty -- sporadic, endemic, and disguised.

Without attempting quantitative measures, the report identifies nomads as being subject to sporadic poverty; small agriculturists, fishermen and herdsmen in the northeast as subject to endemic poverty; and refugees and those on settlement schemes as subject to disguised poverty. It concludes, "In all, a conservative estimate derived from the IFAD analysis suggests that there may be between 2 1/2 to 4 million people today suffering from one or more of these poverty conditions. It is indeed a poor country when poverty already affecting much of the national scene becomes even more pronounced by the burden of 1 1/2 to 2 million refugees." (P.CP4-101). This implies that between 60 and 90 percent of the population lives in poverty with almost every group (with the obvious exception of urban dwellers) being mentioned as subject to some form of poverty. Maps showing distribution of incomes as estimated by IFAD by region are also drawn up and, as expected, the greatest incidence of poverty is shown for the crop production areas.

The picture that emerges from these various (not independent) attempts is that almost all Somalis are very poor with most settled farmers being desperately poor. In fact, the implied caloric intakes from these estimated incomes raise questions about how life can be sustained in these circumstances. This is not very helpful for programs that intend to "target" benefits to specially needy groups.

A startlingly different view of poverty in Somalia is provided by a more recent and better-founded study by Vali Jamal "Nomads, Farmers and Townsman: Incomes and Inequality in Somalia," Addis Ababa, ILO/JASPA Working Paper #29, Sept. 1981 which expands upon the report of the JASPA Technical Assistance Mission, "Wages and Incomes in Somalia (With Particular Reference to the Public Sector)" Addis Ababa, ILO/JASPA June 1981. Using newly-available National Accounts supplemented by a wide range of data from other sources, Jamal provides a conceptually rigorous and well-argued case.\*

\*Virtually all of my critique of the three earlier income distribution studies of ILO/JASPA, World Bank (Hicks), and IFAD is taken directly from Jamal, Appendix D, pp. 112-19.

He convincingly argues that it is meaningless to compare the consumption possibilities of nomads and of farmers by imputing income equivalents for subsistence production at prevailing urban relative prices. Jamal avoids inflating nomads' incomes by establishing a calorie-based poverty line for all groups. He uses 2200 calories per capita (which is 2700 per adult equivalent) as the poverty line and estimates what proportion of various groups are unable to obtain such a level of consumption by combinations of own production, barter, and cash purchases according to relevant diet patterns for each.

Jamal concludes that 1) 33 percent of nomads fall below his calorie-based poverty line, 2) 34 percent of farmers, and 3) 5 - 7 percent of urban dwellers.

The incidence of poverty is not evenly distributed geographically, however. Thirty-seven percent of southern nomads are "poor" while only 28 percent of northern are so. Jamal estimates that nearly two-thirds of northern farmers (virtually all of those without considerable livestock) are "poor" compared with 16 percent in the south. "Thus altogether we get a clear North-South pattern. In the North we have rich nomads but poor farmers; in the South rich farmers but poor nomads, but these nomads have the possibility of bartering some of their milk and meat for grain to make good their calorie deficit. In sum, poverty in terms of hunger is much more likely to be prevalent in the North than in the South, especially among farmers, but also among nomads owning small herds." (p. 30).

Summarizing his findings on the rural sector, Jamal states:

We have found that the situation in the rural sector is much healthier than hitherto believed. The country is practically self-sufficient in food, and the incidence of poverty - in terms of undernutrition - is within reasonable limits. We certainly do not find any evidence for the view that as much as two-fifths of the population - and by inference two-thirds of the nomads - fail to get even 1,500 calories per day, the intake necessary to prevent an inert body from losing weight. We also find much less hunger among the nomads than has hitherto been believed: only one-third fail to get their 2,200 calories and at the most 5-10 percent may fail to get the body-maintenance threshold.

"We also find that among the farmers too there is much less poverty than one is usually led to believe. Another finding with respect to the farm sector that goes against the conventional wisdom is that it is quite productive in terms of food production, producing a surplus big enough to feed twice as large a population." (p. 46)

With respect to the urban sector he concludes:

In the urban sector also we have shown that the situation is much healthier than sometimes believed. Here we have found it essential to distinguish between what happened in the urban economy and what happened in the urban sector and between what happened to certain urban incomes compared to what happened to urban families. The urban productive sectors - industry - are in ruins, but the

urban sector is showing all signs of a boom. The wage incomes have fallen drastically in real terms, yet the prosperity seems to be shared by all sections of the population. We have provided an explanation of these paradoxical trends in terms of the importance of the money repatriated by Somali workers abroad and in terms of the nature of the Somali economy and society." (p. 91).

Taking average rural incomes as base 1, Jamal finds average incomes of farmers to be 1.02, of nomads to be 0.99, and of urban dwellers to be 2.65 if based on GDP or 4.12 if repatriated money from workers abroad is included (assuming that all such remittances accrue to urban households)(p. 24). As such, these income differences are remarkably small.

#### CRUCIAL ASSUMPTIONS UNDERLYING THESE ESTIMATES

Each of these estimates rest upon fragmentary and shaky evidence. Any conclusions reached depend crucially upon assumptions both explicit and implicit. The great value of Jamal's paper is that he details his assumptions clearly and makes explicit the significance of each for his conclusions. As such, his paper is a model of how such exercises should be explained.

In this section we will review each of the major assumptions made in each of the studies, evaluate their importance, and summarize the evidence that exists to support or refute them. The studies are denoted JASPA/WB for the first JASPA studies and Hick's World Bank study, both of which are based on the Middle Shabelle surveys; IFAD for the IFAD study based on acreage and livestock estimates and restricted to the rural sectors; and Jamal for the recent JASPA study by Jamal based on National Accounts data. Since the Clark University effort did not attempt independent estimates, no further reference will be made to its summary.

#### Criteria for Identifying Poverty

1. JASPA/WB: JASPA/WB defines poverty in terms of cash income. Minimum income is that required to purchase 2,200 calories per day per adult equivalent and for non-food necessities valued at one-third of food costs. Having calculated required income to meet this criteria in urban areas, "cost of living" differences are applied to reduce such required income by 25 percent for farmers and by 50 percent for nomads. These poverty lines were applied to the Middle Shabelle surveys which recorded cash incomes only; no explicit attention is paid to subsistence production/consumption. Hicks takes account of additional income earners in households but applies the same general methodology applied.

This definition of poverty involves several implicit assumptions. Since there are no data on differing relative prices of commodities between urban, rural, and pastoral areas, the adjustments seem to imply that 25 percent of farmers' and 50 percent of nomads' real consumption consists of non-marketed items. All other goods are assumed to be marketed at the same prices for all three groups. Ability to obtain similar consumption through production cum trade yields similar levels of material well being. Although the survey figures show consumption expenditures by household, they do not distinguish sources of income. It seems to be assumed that all cash income of farmers come from sale of agricultural output and all income of nomads comes from sale of animal products.

2. IFAD: IFAD defines the poverty line in terms of herd size for pastoralists and farm size for agriculturalists. The minimums assumed necessary are 60-70 sheep equivalents for nomads and 2.0 hectares per capita, or approximately 10.0 hectares per family for farmers. Non-Somali estimates of herd offtake rates and crop yields are used to calculate market values of grain and animal production in Somalia. These values are, in turn used to compare relative incomes of nomads and farmers.

This procedure involves the following assumptions. Nomads are assumed to specialize entirely in animal production. Farmers are completely specialized in crop production. No wage earnings are received by either group. The only determinant of production is assumed to be number of animals or number of hectares. It is assumed that all animal and crop production can be traded readily at constant prices in all parts of the country. Subsistence production thus has the same value as traded production.

3. Jamal: Jamal's basic unit of comparison is the calorie and poverty is defined in terms of ability to produce calories for own consumption or to trade production in exchange for calories. Non-food consumption is implicitly defined in terms of calorie exchange value.

Jamal's approach involves the following assumptions. Nomads, farmers, and urban dwellers are assumed to consume calories in different forms depending on both production and exchange opportunities. Hence, nomad diet is more concentrated on animal products. National accounts data are taken as reasonable estimates of both subsistence and marketed outputs with some notable adjustments. Social-institutional features are taken into account in estimating production and exchange possibilities of different groups. Nomads are assumed to engage only in pastoral production and can barter some quantities of milk for grain with farmers and sell other amounts of animal products to urban markets for cash. Farmers are assumed to raise crops and also hold one third as many animals per family as do nomad families. Farmers barter some grain for milk and sell other farm products to urban areas for cash. Neither nomads nor farmers are assumed to engage in wage labor either in urban areas or abroad. Urban residents are assumed to be completely specialized in the cash economy and obtain income from formal-sector wage employment, from informal-sector wage employment and trade, and from remittances from emigrants to the Gulf States. All urban families are assumed to pool incomes from all three sources in a way that equalizes all urban family incomes.

4. This Study: The adoption of criteria for identifying poverty is not a matter of evidence but rather a philosophical decision concerning the meaning of poverty. It must be based on some implicit notions of what constitutes economic well being and what levels of well being are considered minimally acceptable. All of the studies explicitly or implicitly take nutritional adequacy in terms of potential command over calories as a criterion and use some form of FAO/WHO minimum standards as the yardstick. In all cases some measure of money income plus subsistence production required to allow retention or purchase of calories is taken as the index of well being. Actual consumption of calories, the quality of calories, efficiency of use of calorie-containing foods by household, intra-family distribution of food, and significance of non-food consumption are ignored. There is a huge and controversial literature on the subject which will not be reviewed here because it is not specific to Somalia. Suffice it to say that the criteria

used are probably the most reasonable operational definition of poverty that can be used with the kinds of data available.

No studies of production and consumption activities of Somali families in nomadic, farming, or urban sectors exist. The cash expenditure evidence from the Middle Shabelle surveys are totally inadequate for the purposes for which they have been used. First, cash expenditures contribute only part of household consumption, and it is logically and empirically unjustified to omit subsistence production/consumption. Since no data exist on the actual distribution of subsistence and cash-generated consumption the JASPA/WB implicit guesses are wild, and informed observation in other arid and semi-arid economies suggest that subsistence is far higher than implied. Furthermore, the surveys are so riddled with internal contradictions that they should be regarded as conveying no more information than would tables of random numbers!

IFAD assumes that per animal and per hectare productivities are similar in Somalia and in other desert economies of semi-arid Africa. Since there are no detailed Somali data, it has to be assumed that productivities are uniform within the entire country. The fragmentary estimates of the national herd size and offtake rates vary so wildly as to make conclusions about the actual levels hazardous indeed. The agricultural yield data are similarly questionable. Therefore, assuming some similarity with better documented countries of similar ecology is not unwarranted in absence of anything better to go on. The census data to which the yields are applied is more problematic. Attempts to compare the resulting estimates of crop and livestock production in terms of market prices is wrong, however, because subsistence milk production in particular, produced in small quantities in scattered and remote locations is not readily tradeable at constant prices for other goods. The scant ethnographic material and careful studies elsewhere (particularly Dahl and Hjort, Having Herds) substantiates this point.

Jamal's procedures are conceptually correct in terms of defining calorie as the "unit of account," given the non-tradeable nature of much milk production (milk is the largest caloric source of nomads' subsistence consumption). His use of national accounts figures is reasonable to the extent that they are reliable. One cannot rest too easy on that account, but there have been efforts to make them as reliable as possible under the conditions of statistical reporting in the country. Jamal corrects these figures for two glaring deficiencies - subsistence milk production and remittances from overseas workers. Of course, such aggregate figures tell nothing about distribution among families. Regional variations reported in censuses of livestock and population are used to estimate regional differences in poverty.

#### Nomadic Income

1. Assumptions: All three studies assume that nomads are entirely specialized in livestock production. JASPA/WB and IFAD assume all livestock are owned by nomads -- Jamal assumes that in each district, each nomad family owns three times as many animals as each farm family. Applying these ratios to the population estimates for each district, the proportion of animals owned by nomads is applied to the livestock census for the district to yield the number of animals owned by nomads. This procedure yields a national estimate that some 90 percent of animals are owned by nomads although the proportion varies by district. He too assumes that nomads only engage in livestock production.

IFAD assumes uniform productivity of herds in terms of milk and meat and does not distinguish between production for subsistence and for sale. No specific assumptions about the composition of trade by nomads are made.

While Jamal takes the National Accounts estimates as the basis of meat production, including subsistence and sale, he finds the implied estimate of milk production for subsistence far too low -- yielding only 0.36 liters per capita per day. Using milk yields from Dahl and Hjort (surveying yields in other African countries) and applying them to the herd composition from Somalia, an estimate of 2.5 liters of milk per capita per day emerges, which both seems reasonable and increases the per capita caloric yield of subsistence milk from 250 to 1,900 for the nomads!

A second crucial assumption Jamal makes is that nomads barter an average of 1 liter of milk per family per day for grain at an exchange rate of 1 liter for 2.25 kg. of grain. This is the urban relative price of grain and milk. This amounts to exchange of 775 milk calories for 5,200 grain calories and is sufficient to raise nomadic calorie availability above minimum requirements.

After total herd offtake assumptions are made and urban plus export sales of animals accounted for, it is residually estimated that 35 percent of cattle, 56 percent of sheep and goat, and 48 percent of camel offtake is retained in rural areas for subsistence consumption. However, this still yields an estimate that approximately three fourths of subsistence animal calories in the nomadic sector comes from milk.

2. Evidence: Jamal is very explicit about his sources and assumptions in Appendices A (National Accounts of Somalia), B (Food Situation in Somalia) and C (Poverty Line for the Nomads). The crucial assumptions he has to make without direct quantitative evidence are on the specialization of nomads and the quantities and exchange rates of bartered milk and grain. The subsistence milk production estimates taken from elsewhere yield plausible (and important) results for nomadic dietary adequacy. The proportion of animal offtake retained for subsistence is estimated residually and without comment. No basis for testing its plausibility is available. Casual, but unquantified, observations and discussions with Somalis suggest that migration to the Gulf and to the cities for wage labor is a significant source of nomadic families' real income. It is entirely ignored in all of these studies. Finally, there are scattered impressionistic references to the fact that nomads also engage in some amount of crop production, ranging from opportunistic seeding to regular planting by some members of families.

#### Farm Income

1. Assumptions: JASPA/WB and IFAD assume that farmers are completely specialized in crop production. Jamal assumes that each farm family owns one third as much livestock as each nomadic family in the same district. Overall this suggests that 10 percent of the national herd is owned by farmers. Farmer owned and nomad owned livestock are assumed to have similar productivity in terms of both milk and meat. Farmers are assumed to trade some grain for milk with nomads at the rate of 1.5 kg. of grain for 1 liter of milk. Total crop production is taken from the National Accounts. All three studies assume that farm families receive no income from wage labor of family members either in urban areas or working abroad.

2. Evidence: Jamal is explicit about his estimates and assumptions in Appendix B (Food Situation in Somalia). Casual observation and discussion with Somalis suggest that many farm families do own livestock. Absolutely no quantitative evidence exists on which to base an estimate of the size or the distribution of such holdings among farmers. Again, interviews suggest that family members also engage in wage labor in rural areas both on small farms and on plantations as a supplement to their own farming. Again, it is clear that many urban workers and migrants to the Gulf are part of rural families and it is claimed that their remittances are an important contribution to family real incomes.

### Urban Incomes

1. Assumptions: JASPA/WB uses the Middle Shabelle surveys which include an urban sample and apply the poverty line as described earlier. The assumptions are that the survey households were randomly selected, that all incomes of the household were enumerated, and that the calculation of a poverty-level income was appropriate. As such, the estimate is that 42 percent of the urban population was below the poverty line. Jamal, setting aside these surveys as unreliable (with good reason), attempts to estimate urban incomes from the national accounts aggregates applied to an income distribution derived from a 1977 Mogadishu Family Budget Survey.

Jamal assumes that all GDP not accounted for by agricultural output is urban and that the total of that income is paid to households, excepting retained earnings of parastatal enterprises. Such income must by definition be distributed either in the form of wages and salaries to workers in both public and private sectors, as profits to shareholders of private firms (negligible in Somalia), to earnings in informal-sector wage activities and self employment, in rentals of property, interest payments, and earnings of private firms (principally traders).

The total household income reported in the 1977 survey accounts for only one third of the urban income estimated from the national accounts with no allowance being made for foreign remittances. Applying the poverty line to that distribution yields the result that 43 percent of the families are, in fact, in poverty. Jamal assumes that the relative distribution of incomes from the survey were correct and increases the incomes of each household class threefold in order to account for the total urban incomes. This assumes that the sample was indeed random and that all households underreported their incomes proportionally. Under that assumption, the proportion in poverty is reduced to 21 percent. This, however, still ignores the impact of migrant remittances. Jamal assumes that for 1977 100,000 workers were abroad earning an average of Rial 14,000 per year and remitting one third of their earnings. This increases urban incomes by almost 50 percent and only 12 percent remain below the poverty line. Assuming that all urban families increased their incomes proportionately to the increase in urban income between 1977 and 1980, the proportion designated poor drops to 5-7 percent (pp. 72-74).

Since formal sector wages accounted for only 18 percent of urban GDP in 1977 and 10 percent in 1980, assumptions about the distribution of non-wage incomes are crucial. Noting that urban real-wage incomes fell by more than half between 1978 and 1980 while non-wage real income increased by 9.9 percent in that period, Jamal argues "These figures imply a massive redistribution of income in favor of non-wage urban income; we cannot say non-wage groups

because of the nature of the Somali society and economy. With the trading group so dominant and wage employment so limited, a wage earner is as likely to belong to a trading household as not, especially when the concept of household is taken to mean the extended family, as one should in the Somali context. Thus one cannot speak of a wage-earner class in Somalia; if there were one, such a massive redistribution of income could not have happened, for the trends since 1978 would imply the immersion of a majority of such a class into poverty. What has happened is that while the incomes of some members of the extended family have fallen drastically, those of others have increased so that the income of the family as a whole has also increased" (pp. 63-64).

Later, in discussing the distribution of estimated repatriated earnings, Jamal argues "we have assumed that income distribution remained constant between these dates, i.e. repatriated money increased household income in equal proportions. This is one extreme assumption about the distribution of repatriated money. Quite likely the repatriated money has gone equally to all households - this being the other extreme assumption - since all sections of the Somali society have succeeded in sending their relatives abroad, the skill-mix of the emigrants being wide enough not to be the preserve of any special groups" (p. 74).

To reinforce the importance of the assumptions about repatriated earnings, Jamal estimates an average urban annual income of SoSh 12,861 without remittances and SoSh 20,000 with -- thus remittances would account for 36 percent of urban income.

In another estimate for 1980, he estimates repatriated earnings as SoSh 5,358 million (remitted at the franco valuta rate) while the domestic wage bill was only SoSh 844 million. Remittances are thus 6.3 times as important as the domestic wage bill.

2. Evidence: The data on the formal-sector wage bill is reasonably accurate as it is primarily government employment. The size of the "urban" non-wage income is as good as the national accounts on which it is based. In other words, there is uncertainty. However, since informal earnings and production are not estimated, nor the import of goods underdeclared to customs or smuggled, the national accounts account for consumption of total goods so estimated (there is virtually zero private savings in the estimates). Therefore, it is likely that the total real income in the non-wage non-agricultural sector is underestimated.

The 1977 Mogadishu household expenditure survey is questionable for use in estimating the distribution of income, since 30 percent of the households accounting for 47 percent of the income are in an open-ended upper class yielding no information about the distribution of those higher incomes. Given that the survey accounts only for one third of the total urban income, one has less faith that even its relative distribution is accurate.

No survey exists to show the degree to which urban wage earners and traders are, in fact, members of rural extended households, but discussions suggest that it is an important phenomenon and assumptions of a separate permanent urban class may well be wrong. If so, rural incomes would be higher and urban ones lower than estimated here.

Of greatest importance, the estimates of numbers of workers abroad, their earnings, levels of income repatriated, and the distribution of such remittances are little more than guesses. Jamal assumes 100,000 were away in

1977 and 150-175,000 in 1980. There is no systematic basis for evaluating these estimates. He assumes that on average Somali workers earn Rial 20,400 p.a. or \$6,500. He further assumes one third of earnings are repatriated. While these are not implausible figures, they are at best rough guesswork and could easily be off by a factor of 2 in either direction. We have been told by Somalis that between 75,000 and 300,000 workers are abroad. Estimates of earnings are hard to come by but all agree that the skill mix is wide. Although most agree that recruitment has been disproportionate from the North, some reports from the Bay region suggest a considerable absence of males while other observers are not aware of emigration. Recent studies in two villages (Jan Haakonsen, personal communication) in the Lower Shabelle report about 25 percent of males absent in the Gulf while another informal survey in three similar villages in Brava reports equal sex ratios implying no outmigration since movement to the Gulf is predominantly male.

One should note that if 150,000 workers were in the Gulf in 1981 earning \$5,000 per annum, converting at the exchange rate of SoSh 12.5-\$1, total earnings of Somalis abroad would be SoSh 9,375 million which would be 55 percent of Gross Domestic Product, 3.8 times recorded exports, or 2.3 times the recorded trade deficit.

Since it is clear that no data exist on these crucial magnitudes, it would be best to stop speculation at this point and make clear that further pyramiding of assumptions in absence of data is not likely to be fruitful.

#### SIGNIFICANCE FOR POLICY

While it is interesting to know who are the poor, and some donors are concerned with targeting assistance to specific needy groups, it is also important for understanding the ways in which sectors are interconnected and may be important for predicting responses to policy changes. (The latter point is detailed in Chapter III.) This examination of attempts to identify a profile of poverty in Somalia reveals the fragility of information about the institutions of Somalia's economy. We can summarize the main gaps shown to be essential for the analysis of poverty to be:

1. Lack of information about the production strategies and activities of rural households - the degree to which nomads raise crops and farmers hold livestock, the extent of trade within rural areas.
2. Lack of information about the degree to which wage earning is part of rural families' income-generating strategies.
3. Lack of information about the extent, composition, and consequences of large-scale emigration to the Gulf States.
4. Lack of information about the distribution of incomes through extended family structures in both urban and rural areas.
5. Very little information available to describe differentiation within groups and districts.