

46

CLARKE URBAN SYSTEMS

Management Economics Planning Engineering

Australia
Box 423 GPO Sydney 2001
15 Albion Ave Sydney 2021
Telephone (02) 311543

Indonesia
P.O. Box 15
Denpasar

**UNITED NATIONS CENTRE
FOR HUMAN SETTLEMENTS
- HABITAT**

**P.O. Box 30030
Nairobi, Kenya.**

Associated Offices in
Washington DC, USA
Jakarta, Indonesia
Melbourne, Australia
and in Singapore

**Mogadishu, Somalia
23rd July 1981**

**The Director General
Ministry of National Planning,
Somalia Democratic Republic
Mogadishu, Somalia.**

Attention: Jaalle Hussein Elabe Fahiye

Dear Jaalle Fahiye:

**re: SOM/81/ROIA CLARKE: DRAFT CHAPTER ON URBAN
DEVELOPMENT, BUILDING MATERIALS & HOUSING FOR
FIVE YEAR DEVELOPMENT PLAN 1982-86**

As UN HABITAT Consultant for the above, I herewith transmit to you my complete Draft Report (comprising 118 typed A4 size pages). The final Report, approved by UN HABITAT, will be sent from Nairobi to you through the U.N. Res Rep in Mogadishu.

Please accept my thanks and appreciation for your assistance to me. It has been a pleasure to work with you and your Ministry.

Yours faithfully,


George Clarke
UN HABITAT CONSULTANT

c.c. U.N. Res Rep, Mogadishu
c.c. U.N. DTCD 78/008
Mr. Otto Czivis

HABITAT SOMALIA/81/RO1

NATIONAL URBAN STRATEGY
FOR RURAL DEVELOPMENT
IN SOMALIA

A Technical Report
prepared for
THE GOVERNMENT OF SOMALIA

by the
UNITED NATIONS CENTRE FOR HUMAN SETTLEMENTS
UNCES (HABITAT)
George Clarke, consultant.

Published by UNCES (HABITAT)
Nairobi, September, 1981.



HABITAT



UNITED NATIONS CENTRE FOR HUMAN SETTLEMENTS
CENTRE DES NATIONS UNIES POUR LES ETABLISSEMENTS HUMAINS
CENTRO DE LAS NACIONES UNIDAS PARA LOS ASENTAMIENTOS HUMANOS

8 September, 1981.

Dear Mr. Svennevik,

Re: The UNCHS Recommended National Urban Strategy for Rural
Development in Somalia

We are very pleased to forward to you, for official transmission to the Government, the UNCHS Final Report and Recommendations for Action on a National Urban Strategy for Rural Development in Somalia. This is based on the work of Mr. George Clarke, UNCHS Consultant, in Mogadishu, where he was attached to the Ministry of National Planning in June and July this year.

We draw your particular attention to the CONCLUSIONS AND RECOMMENDATIONS, in which you will find (between pages IV to XIX) thirteen (13) specific Recommendations which together comprise an integrated, step-by-step series of actions and project concepts designed to make feasible the delivery of practical services to the rural people of Somalia from decentralised urban centres, and to reduce the present over-concentration of national and international resources in Mogadishu.

We hope that you will be able to present these 13 Recommendations to the Ministry of National Planning, the Ministry of Local Government and Rural Development, and other relevant authorities. We also trust that you will be able to discuss the Recommendations, and appropriate follow-up action as suggested in the Report, with Somali authorities and advise us accordingly.

The full Report contains much detailed discussion and data which we believe has not previously been compiled, and we therefore hope that the Report will be useful to officials from the various Ministries and Agencies. We enclose six (6) copies of this full Report herewith. Please let us know how many additional copies are needed, as we are considering a larger print run.

.../2

HABITAT SOMALIA/81/R01

Olav Svennevik, Esq.
The Resident Representative
U.N.D.P.
P.O. BOX 24
Mogadishu
S O M A L I A



Meanwhile, we enclose thirty (30) xerox copies of the CONCLUSIONS AND RECOMMENDATIONS section of the full report. These may be used for general distribution, at the discretion of the appropriate Government authorities, with copies of the full Report held by the Director Generals of the Ministries of National Planning and of Local Government and Rural Development, and in the UNDP Library and the UN Documentation Centre at the MNP. We trust you will also give Mr. Otto Czivis and his team at the MNP a copy of the full Report.

We look forward to your further advice on whether, and how, UNCHS may assist the Government in implementing the Recommendations.

Yours sincerely,



Mark Hildebrand

Officer-in-Charge
Sub-Saharan Africa Unit
Technical Co-operation Division

HABITAT SOMALIA/81/RO1

**NATIONAL URBAN STRATEGY
FOR RURAL DEVELOPMENT
IN SOMALIA**

A Technical Report

prepared for

THE GOVERNMENT OF SOMALIA

by the

UNITED NATIONS CENTRE FOR HUMAN SETTLEMENTS

UNCHS (HABITAT)

George Clarke, consultant.

Published by UNCHS (HABITAT)

Nairobi, September, 1981.

CONTENTS

	Para	Page
A. <u>CONCLUSIONS AND RECOMMENDATIONS</u>	i	i
I. SUMMARY	i	i
II. THE NEED FOR AN URBAN STRATEGY	viii	ii
III. OBJECTIVES	xv	iv
IV. DEFINITION OF THE STRATEGY AND IMPLEMENTING MINISTRIES	xvi	v
V. FIRST PRIORITY MAJOR GROWTH CENTRES	xvii	vi
VI. LOWER PRIORITY MINOR GROWTH CENTRES	xxi	viii
VII. INSTITUTIONAL ARRANGEMENTS	xxiii	ix
VIII. LOCAL TECHNICAL LEADERSHIP TRAINING	xxx	xi
IX. BUILDING MATERIALS AND CONSTRUCTION ENTERPRISES	xiii	xv
X. AIDED SELF-HELP COMMUNITY DEVELOPMENT AND HOUSING	xvii	xvii
<u>Figure 1:</u> The unbalanced 1981 urban system		xix
<u>Figure 2:</u> A future balanced urban system		xx
 B. <u>THE REPORT</u>		
Shifting patterns of movement and settlement	1	1
Towns and cities: generators of economic growth; or parasites on rural producers	25	6
The 1960-81 development of Mogadishu as National Capital and Primate City	37	10
<u>Table 1:</u> Mogadishu's development as a percentage of National totals		15
The dangers of continued over-concentration in Mogadishu	53	16
Somalia's urban system in 1981	60	19
<u>Table 2:</u> Hierarchy of cities and towns, by population		21-2
<u>Table 3:</u> Urban as % of National population		23
<u>Table 4:</u> Hierarchy of Regional administrative centres, by population		24

	para	Page
Urban infrastructure for growth centres: the case of urban water supply systems	64	25
<u>Table 5:</u> Hierarchy of towns by water consumption: actual 1981 & planned 1986		26
The extent and nature of urban under-employment	73	29
<u>Table 6:</u> Non-agricultural jobs and workforce in urban centres 1981 and 1986		33
The construction industries: strategies for high, low and intermediate cost building materials and technologies	87	36
Education and training for the construction industries	105	46
Community development and housing	118	50

C. ANNEXES

1. Bibliography on Urban Development & Housing; 13 pp.
2. Glossary of Regional, District & Urban Centre Place Names; 8 pp.
3. Data Base: Urban Development & Housing; 27 pp.
4. Data Analysis: Urban Development; 18 pp.
5. Dates of Mission and Chief Contacts: 4 pp.

UNCHS (HABITAT): NATIONAL URBAN STRATEGY FOR RURAL DEVELOPMENT IN SOMALIA
(George Clarke, Consultant). Published by UNCHS (HABITAT) Nairobi,
September, 1981: Ref. HABITAT SOM/81/RO1.

CONCLUSIONS AND RECOMMENDATIONS

I. SUMMARY

- i. This is the technical report of a consultancy mission requested by the Government of Somalia and provided through the United Nations Development Programme by UNCHS (HABITAT) to assist the Ministry of National Planning during the preparation of the Government's 1982-86 Five Year Development Plan.
- ii. The initial request for assistance focussed on the formulation of national housing programmes, a task that has not previously been successfully attempted in Somalia, and on which there is little data or experience. In the absence of any existing programmes or institutional arrangements, and in view of the scarcity of construction materials and skilled workforce, the first task was to compile a bibliography of all relevant reports and publications, a glossary of settlements and their place names, an urban data base and some basic data analysis, including a study of the existing hierarchy of human settlements. This work is in 4 Annexures to the report. It is hoped it will provide a useful basis for more sophisticated future work.
- iii. The consultancy's final Terms of Reference were to "draft a statement of concepts for national urban and rural human settlements in terms of resource mobilisation, institutional arrangements, and strategies for implementation".
- iv. The report assesses the spatial/locational distribution of urban settlements and centres, rural urban migration, urban infrastructure

investment, urban under- and un-employment, available non-agricultural workforce and skills, and building materials and technologies. These assessments lead to conclusions and recommendations on resource mobilisation, institutional arrangements and a strategy for housing, as part of an integrated approach to urban and rural development.

v. The conclusions and recommendations specify a "National Urban Strategy for Rural Development", for the Government's consideration of adoption and action. The strategy is designed to extend the Government's achievements to date in reaching out from Mogadishu, through Regional and District Government headquarters, to the ninety percent of the population who live outside it.

vi. The overall strategy integrates four major component parts:-

- (a) co-ordinated decentralisation;
- (b) local technical leadership training;
- (c) building materials and construction enterprises; and
- (d) aided self-help community development and housing.

vii. The Government is invited to request Technical Assistance for the implementation of each of the above components of the strategy. Such Technical Assistance could be jointly funded by the United Nations Development Programme (UNDP), UNCHS (Habitat), other Agencies within the UN system, and through bi-lateral agencies.

II. THE NEED FOR AN URBAN STRATEGY SERVING RURAL DEVELOPMENT

viii. Somalia is one of the Least Developed Countries, with a population now about 5 million, and a GNP per capita assessed by the World Bank at about US\$185 in 1978 values. These estimates exclude a refugee population variously estimated at between 1 and 2 million, mostly concentrated in border areas. About 60% per cent of the national population, and most of the refugees, are nomadic livestock herders, but droughts and conflicts have pushed large numbers into refugee camps and into older settlements which the Government is striving to develop as "urban centres" - the key points in an emerging

national network of roads and communications, diffusing modernisation throughout the country.

ix. The national urban system in 1981 is depicted on Figure 1, on which the size of each centre is relative to its population, economic activity and infrastructure. Mogadishu dominates, with about 10.5% of the population but about 60% of non-rural economic activity and infrastructure. Five towns, Hargesia, Burao, Baidoa, Kisimayo and Belet Wein (pop. 50 to 200,000) contain about 6% of national population, and the next rank (pop. 20 to 50,000) of 11 towns, about another 6%. This report focusses primarily on these 17 urban centres, which contain a core of about 200,000 under- and un-employed, rising to 300,000 by 1986.

x. Urban development - its nature, size, and distribution - must be disciplined to serve the Government's adopted National Objectives and National Development Strategy. The Objectives are to raise living standards and offer productive employment for all the people; to eradicate all forms of exploitation and to promote social justice. The Development Strategy gives maximum priority to productive agriculture, livestock, forestry, fisheries and industry, and to infrastructure and social investments which support these productive priorities.

xi. Rural development can only proceed in step with the creation of:

- (a) a national rural transport and communications network of trunk and feeder routes;
- (b) a national hierarchy of urban centres of special types and different sizes, located in rank order at strategic points on the transport network.

xii. To plan and create a national hierarchy of urban centres integrated with a national transport and communications network as depicted on Figure 2, is therefore one of the essential tasks of national planning. Such a "pyramid" or "network" of urban centres, with Mogadishu at the top, through about six well-separated medium-sized cities, down through larger numbers of smaller towns and finally to a host of villages, is essential to:

- (a) diffuse innovation: to spread new ideas, tools, techniques and technologies for raising incomes, throughout the country-side to the herders, cultivators, fishermen, miners and foresters on whose efforts and success the nation depends; and to
- (b) finance, gather together, process and add value to, and finally use well, the products of the countryside; whether those products be meat, hides, fish, grains, fruits, minerals; or whether they be young rural people who are trained and educated to progressively higher levels in progressively large urban centres, and who then earn progressively larger incomes (either at home or abroad) which are spent (or remitted) to support families and other relatives; either way, strengthening the national economy.

xiii. While much important work remains to be done in Mogadishu, it is clear that since the 1969 Revolution, the City has been brought to a relatively high level of development. It is now not only a worthy Capital City, but is also a strong base from which the Government can begin to reach out along the gradually extending Primary Road system to other selected growth poles, and to repeat the success in other locations. For the future, this will necessitate a reduction in the proportion of investment put in place in the National Capital and a corresponding increase in the selected new growth poles.

xiv. However, if available investments and projects are scattered or equally shared among most or all 15 Regional administrative head-quarter towns outside Mogadishu, or scattered even more widely among the 52 other District headquarter towns, they all will remain weak. Mogadishu's dominance will increase, and its problems will become unmanageable. The national economy will become more seriously unbalanced.

III. OBJECTIVES

xv. Recommendation 1: It is recommended that the Government adopts a National Urban Strategy for Rural Development with the following objectives:-

- (a) diffuse innovation, employment and income through a decentralised hierarchy of selected major and minor growth centres outside Mogadishu;

- (b) reduce over-centralisation of employment, income, Government services, skills and resources in Mogadishu by the co-ordinated transfer of major new investments to the selected growth centres;
- (c) strengthen Local Government, starting in the selected growth centres, by training and employing technical leadership for local construction and community development projects;
- (d) create employment and income for the under-employed in the selected growth centres by launching local building materials production, construction and other small and medium-scale industrial and service enterprises; and
- (e) organise and build local public works, aided self-help community development and housing projects, using the trained local technical leadership, local materials and enterprises generated in the selected growth centres through (a) to (d) above.

IV. DEFINITION OF THE STRATEGY AND IMPLEMENTING MINISTRIES

xvi. Recommendation 2: It is recommended that the strategy integrate four basic components, and that implementation action be led by the Ministries indicated:

(a) Co-ordinated decentralisation:

create a limited number of major decentralised urban centres by co-ordinating, concentrating and giving priority to investments and projects in a few selected centres in each Five Year Plan period, giving first priority, in the 1982-86 period, to the development of infrastructure and services in a first rank of 6 major urban growth centres to be selected;

implementation action: all Ministries and Agencies, with coordination by the Ministry of National Planning.

(b) local technical leadership training:

establish, in one of the selected major inland growth centres, a Technology Leadership Training Institute (TELETI) to train Local Government Technical Officers and other leaders and potential leaders of local enterprises, in intermediate technologies for local building materials and energy production, and in the setting up and managing of local construction and energy enterprises and projects;

implementation action: the Ministry of Local Government and Rural Development, with the assistance and co-operation of the Armed Forces, the Ministries of Education, Public Works, and Minerals and Water Resources; and the Water Development Agency.

(c) building materials and construction enterprises:

promote small and medium-scale industries and enterprises catering to local, regional and national markets for tools, equipment, services, building materials and construction, through technical assistance, joint ventures and awards of Government contracts, taxation and other incentives and concessions, with particular encouragement to enterprises in the designated major growth centres outside Mogadishu;

implementation action: all Ministries, Agencies, and banking and financial institutions, with particular reference to the Ministries of Industry, Commerce, Public Works, and Mineral and Water Resources, and with co-ordination and monitoring through the Ministry for Local Government and Rural Development.

(d) aided self-help community development and housing:

organise and administer projects to provide sites, services, building materials, technical information, grants, credits and other incentives for local co-operative community development and self-built housing, together with the construction of a very limited number of houses for key Government officials and foreign technical advisers in the major designated growth centres;

implementation action: the Ministry of Local Government and Rural Development (in the designated major growth centres and later in other centres); and the Settlements Development Agency of the Ministry of National Planning (at the Kurtunwaarey, Saablale and Hombay Settlement Projects).

V. SELECTION OF FIRST PRIORITY MAJOR GROWTH CENTRES

xvii. The criteria for selection of six (6) towns, for concentrated priority investment between 1982 and 1986, are:-

- (a) towns already at or about 40,000 or more urban population;
- (b) towns with significant existing infrastructure and with other major infrastructure projects under construction or planned for early construction;

- (c) towns at important crossroads or transportation junctions on the already-built sections of the National Primary Road system, and/or already the centre of tracks which act as feeder roads;
- (d) towns with important export trade or import-substitution functions;
- (e) towns at the centre of, or easily accessible to and from large agricultural populations, and/or at the centre of major rural development projects;
- (f) towns with the most existing non-rural employment, in administration, trade, transport, distribution, industry and social services; and
- (g) towns widely spaced from each other, and from Mogadishu.

xviii. Recommendation 3: It is recommended that the following towns be selected for concentrated investment priority during 1982-86, and thereafter as necessary to ensure their continued economic growth:-

1. HARGEISA
2. BURAO
3. BAIDOA
4. KISIMAYO
5. JOWHAR and
6. BERBERA

xix. Recommendation 4: It is further recommended that preparatory work be done during 1982-86, for concentrated investment priority to be given at a later stage, probably in 1987-91, to:

7. BELET WEIN and
8. BARDERE

xx. Belet Wein is close to conflict areas, is currently swollen

with refugees, and may require flood control measures or re-sitting before it can become the key national urban centre that its location dictates it will one day become. Bardere is also a natural location for a future major urban centre, and the proposed Bardere Dam and hydro-power project will add to its importance. Before it can "take off", primary roads must be built to link it to Kisimayo and Baidoa, and this should be done before 1986 if possible. Consideration should also be given to making Bardere a Regional administrative headquarter town, replacing Boale in Middle Juba Region, even if this means reshaping Regional boundaries. Consideration might also be given at some stage to the potential of Lugh replacing Garba Harre as the administrative centre of Gedo Region.

VI. SECOND AND THIRD PRIORITY MINOR GROWTH CENTRES

xxi. In order to create a strong hierarchy of major secondary cities, well distributed in accord with the density of population, the largest available investments and projects, and the highest priorities, should be concentrated in the above eight major centres over the next 20 years, and lesser shares, smaller units and lower priorities should be given wherever possible to Mogadishu and the large number of other, smaller centres throughout the country. However, significant shares of resources should also be allocated to developing a selected number of lower-rank urban centres, located in between the major centres, and particularly in the less densely populated North East and Central Regions.

xxii. Recommendation 5: It is recommended that the second and third priority rankings of smaller urban centres for investment allocations be in groups as follows:

(a) second priority group:

Erigavo
Galkayo
Afgoi
Schalambot-Merca
Gelib
Lugh

(b) third priority group:

Borama
Bosaso
Garoe
Dusa Mareb
Hoddur
Balad, Brava, Boale, Gardo, Garba Harre,
Jamame, Koryole, Bulo Burti, Eyl, Adale,
Bur Akaba, Wanle Wein, Dinsor and others.

VII. INSTITUTIONAL ARRANGEMENTS FOR CO-ORDINATED DECENTRALISATION

xxiii. Orderly, effective decentralisation in accord with the strategy, requires a start to be made in coordinating, guiding, directing and monitoring the locations and phasings of major investments, projects and plans in the following urban-related fields:

- (a) Primary, secondary and feeder roads;
- (b) Seaports, airports, and other transport and distribution facilities;
- (c) Telephones and telecommunications;
- (d) Urban water supply, flood control, drainage and sanitation;
- (e) Urban electricity supply, and other major energy production and conservation projects, such as for afforestation, biogas and solar sources for cooking fuel;
- (f) New offices and other facilities for National Ministries and Agencies, particularly those providing agricultural, animal husbandry, fishery, and other regional and rural development and extension services;
- (g) Technical education and training, including Technical and Vocational High Schools, training for Local Government, for the construction industries, and for small-scale urban industries, trades and businesses;
- (h) Trade, commerce and industry, both Government and private, capable of providing productive occupations in decentralised centres close to rural producers; and
- (i) Major health care and other centres of social facilities and services.

xxiv. This type of co-ordination requires the start of regional and urban planning combined with some basic "critical path" scheduling of projects in different sectors (e.g. road first, water second, building third, staff transfer fourth). Inter-sectoral co-ordination is the responsibility of the Ministry of National Planning (MNP).

xv. The MNP should liaise with, assist, advise, guide and monitor the progress of, each of the separate vertical sector Ministries and Agencies responsible for the major urban-related investments, projects and plans set out in para. xxiii. The MNP should also liaise with, assist, advise, guide and monitor the urban-related activities of international multi-lateral and bi-lateral assistance agencies. Any conflicts over priorities for the location or phasing of particular urban-related projects which cannot be

resolved by the MNP and the Ministry or Agency concerned, should be referred to a higher national authority for decision.

xxvi. Recommendation 6: It is recommended that the MNP appoint a Regional Development Co-ordination Officer to assist the Director-General of the Ministry in the co-ordination of decentralisation. His initial duties would be to:

- (a) collect, chart, map and regularly update basic information on the year by year proposals of individual Ministries and Agencies regarding the location and phasing of major urban-related projects;
- (b) assist the Director General in regularly publishing and circulating the data for the information of, and for discussion with, other Ministries and Agencies;
- (c) assist the Director General in liaison work aimed at the orderly, effective integration, co-ordination, and "critical path" scheduling, of those projects so as to achieve the Government's urban strategy for decentralisation to accelerate regional rural development.
- (d) set up a regular two-way flow of information between MNP and the offices of the 15 Regional Governors outside Mogadishu, acting through the Ministry for Local Government and Rural Development (MLGRD).

xxvii. Information flows between the MNP and the Regions must become a basic part of both the preparation and implementation of Five Year National Development Plans. The two-way flow should include:-

- (a) regular reports from the MNP to each Region, setting out the proposed scheduling of national investments, projects and plans within or affecting the Region, with requests for local assistance in identifying problems and their solutions, and in co-ordinating implementation at the local level; and
- (b) regular reports from each Region to the MNP giving statistical and other data on progress and problems of national and local projects within the Region, with proposals for solutions to problems.

xxviii. Recommendation 7: It is recommended that the MNP and the MLGRD set up effective, concise and economical formats and procedures for two-way data flows and coordination in planning, scheduling and implementation, between each Region and Mogadishu.

xxix. The Government may wish to request UNDP jointly with UNCHS (HABITAT) to provide the services of an appropriate expert to work as a counterpart adviser to the MNP in starting this new activity of co-ordinated decentralisation and regional planning. In addition, the Government may wish to request UNCHS (HABITAT) Fellowships for Government Officers to be trained abroad in regional and urban physical and economic planning, for the purpose of returning to work in the MNP and MLGRD in this field. Training could range from a two-year post-graduate academic course, to a shorter period of secondment to a Ministry with similar responsibilities in another country.

VIII. LOCAL TECHNICAL LEADERSHIP TRAINING

xxx. Officers of the Ministry for Local Government and Rural Development, and of other Ministries, stationed in Regional and District headquarters outside Mogadishu, are the front line leaders of national development. There should be more of them, particularly those with technical training and with an ability to organise and mobilise local resources of people and materials to carry out local projects under difficult local conditions.

xxxi. The Government recognises the special qualities required in this field. Regional Governors and District Commissioners are mostly officers from the Armed Forces, and are also leaders of local branches of the Governing Party. The democratic participation of the people is organised through District People's Assemblies. The time has now come to build further upon this sound basic political and administrative foundation, by a major effort to train in the field, for work in the field, a cadre of local government engineering and other technical officers to work under the Regional Governors, District Commissioners and District Assemblies, to organise, execute and maintain local rural and urban works and services such as earth roads, tree-planting, shallow wells, local water supply projects, local building materials production, construction of local public buildings, setting up and managing workshops, local energy generation, sites and services projects and housing for key Government employees stationed outside Mogadishu, and other tasks needed for local development, or needed to prepare for and support larger-scale national projects.

xxxii. Local technical leadership is needed to mobilise and put to work local resources such as:

- (a) an estimated 1981 core of 200,000 under-employed people rising to 300,000 by 1986, in the 16 major urban centres outside Mogadishu all of which are either Regional or District headquarters of local government;

- (b) teenage graduates of secondary Technical and Vocational Schools seeking employment, and the partially trained people from nomad education and other training projects;
- (c) traditional craftsmen (and women);
- (d) locally available machines, workshops, generators, and other plant and equipment which is often unemployed for want of proper management or maintenance;
- (e) Locally available natural resources of animal power; solar and wind energy; and animal dung for biogas production; and
- (f) locally available materials such as sand, lime, stone, earth, agricultural wastes, wood, reeds, palms, banana fibre and bamboo;

xxxiii. The creation of technical leadership cadres for local government public works, community development and housing activities throughout the country, requires a similar level of priority, effort and investment as the training of teachers for the education system, or of officers for the armed forces. It may be possible to use teaching and training resources and facilities drawn partly from the Ministry of Education and/or from the Armed Forces, to train the para-professional technical leaders and organisers needed for Local Government urban and rural development.

xxxiv. Initial targets for training should be to produce say, three para-professional Local Government Engineers for each of the 15 Regional headquarter units, and one for each of the remaining 52 District headquarter units: an initial total of 97 para-professional Local Government Engineers, trained to sketch-design and organise the construction of a selected number of simple works projects.

xxxv. Local Technical Leadership Training should be integrated with efforts to experiment with, test, demonstrate and promote the use of "intermediate technologies" and "new and renewable sources of energy." It should also be integrated with the decentralisation programme. The investment in the training project should boost the economy of one of the selected major inland growth centres, and the graduates should strengthen the local government leadership in the growth centres. Baidoa, at the crossroads of southern Somalia's rural hearland, the headquarters of the Bay Region Agricultural Project sponsored by the World Bank, might be the place to start.

xxxvi. There should be close co-operation and co-ordination, if possible, between the Ministries of Local Government and Rural Development, Education, Public Works, and Minerals and Water Resources, together with the Water

Development Agency, and the Armed Forces, to set up and staff a group of new institutions in one of the major inland growth centres, with closely inter-related functions in the fields of intermediate technologies for urban and rural development.

xxxvii. Recommendation 8: It is recommended that projects be undertaken to establish the following activities on one site, or three adjacent sites, in one of the major inland urban growth centres:

- (a) a Local Government Technology Leadership Training Institute;
- (b) an Experimental Building Station; and
- (c) a Technical High School;

and that while (a) and (b) be the responsibility of the Ministry of Local Government and Rural Development, and (c) be that of the Ministry of Education, efforts be made to share staff, buildings, equipment and other facilities to the maximum practicable and desirable extent, and that assistance, participation and co-operation be obtained from the Armed Forces, the ministries of Mineral and Water Resources, and of Public Works, and from the Water Development Agency.

xxxviii. Recommendation 9: It is recommended that the Technology Leadership Training Institute (TELTI):-

- (a) initially enrol 30 adult employees of the MLGRD and other participating authorities for a full time course, of upto one year, of training and practical work in the design, planning, management and execution of intermediate technology projects in local building materials production, small to medium-scale construction of public works, buildings and housing, and local energy generation and water supply projects;
- (b) require that each trainee be sponsored by agencies employing and paying salary or allowances to the trainee, so that the trainee can concentrate fully on the course and be both bound to and assured of continuing employment and higher responsibility and salary on successful graduation;
- (c) gradually expand intake to include leaders or potential leaders of co-operative and private enterprises in construction or other relevant fields of technology;
- (d) gradually expand facilities to offer special short courses, extension and refresher courses;
- (e) later accept as trainees, selected graduates of the adjacent Technical High School;

- (f) gradually over the years, improve and extend its operations so as to be capable of evolving from a "crash programme" institute for immediate Local Government needs, to a fully fledged Polytechnic Institute, with possible ultimate transfer of administration to the Ministry of Education.

xxxix. Recommendation 10: It is recommended that the Experimental Building Research and Demonstration Unit be sent up initially to:

- (a) experiment with, document and demonstrate low to intermediate cost building materials and technologies suitable for use in its own region, exploiting the use of locally available natural materials such as sand, lime, stone, adobe and pise rammed-earth and mud brick, vegetation, wood, agricultural fibres, and waste products from other activities, with the minimum possible use of imported materials and energy sources requiring foreign exchange;
- (b) concentrate efforts on materials and technologies for basic local public works and single storey buildings;
- (c) experiment with and demonstrate local energy production from new and renewable sources, including animal-power for transport, lifting, hauling and turning, the manufacture of animal powered vehicles, equipment and harnesses; solar and wind energy; bio-gas for cooking and lighting; and insulated fuel-conserving cooking stoves;
- (d) undertake demonstration projects for local authorities, with the active participation of TEL/II trainees and Technical High School students in the design, planning, management and execution of such projects;
- (e) distribute simple, illustrated, Somali-language "how to do it" posters, leaflets and booklets of successful experiments and demonstrations;
- (f) stimulate and assist co-operative and private enterprises to start small-scale industries and services using the intermediate technologies successfully demonstrated; and
- (g) solicit and accept foreign technical assistance and co-operation in all of its work.

xl. Recommendation 11. It is recommended that particular priority be given to experiments and demonstrations of:

- (a) loose-jointed, flexible, column and beam structures (with separate foundations for walls and floors) to avoid the cracking of continuous foundations on soils which swell and shrink;
- (b) adobe earthwalls, rammed by hand between pieces of form-work, so as to eliminate the separate processes of making and laying bricks;
- (c) sun-dried mud bricks, to avoid the use of fuelwood in making burnt bricks;
- (d) fibre reinforcement for mortars, renders, plasters, bricks and blocks, made from banana, sisal, cane, sorghum or other agricultural wastes, so as to strengthen and protect walls made of adobe, sun-dried brick or wattle and daub;
- (e) bamboo for columns, rafters and purlins;

xli. The Government may wish to request Technical Assistance for the above projects. Such assistance could be jointly funded by UNDP and UNCHS (HABITAT). Other assistance from bi-lateral sources would also be available and could be co-ordinated through UNDP or UNCHS.

IX. BUILDING MATERIALS AND CONSTRUCTION ENTERPRISES

xlii. As soon as the selected urban growth centres start to receive co-ordinated inputs of infrastructure & strengthened Local Government technical capacities, it will be possible to accelerate the decentralisation of Government agricultural, animal husbandry, educational and other services to the selected growth centres. The decentralisation of services and personnel from Mogadishu will create employment, economic activity, and new buildings in particular.

xliii. Government-run enterprises cannot efficiently satisfy all these demands for local goods, services and construction, nor can Government effectively or quickly provide jobs for all the 2 to 300,000 under-employed people in the 16 major urban centres outside Mogadishu, as well as for all the rural population and the whole workforce of Mogadishu itself. Government cannot own and effectively manage the whole network of small and medium scale enterprises which make up an efficient construction industry.

xliv. But Government can create such an efficient network of construction industries by giving encouragement, incentives, concessions, credits and contracts to stimulate individuals, groups and firms to start enterprises to produce the goods and services, which will create the needed employment, raise incomes, accelerate decentralised development, and diffuse modernisation into rural areas.

xliv. As part of wider national programmes to stimulate small and medium scale private sector formal and informal economic activity, the needs and opportunities in the building and construction industries should be given particular attention. The success of national development will depend heavily on the extent to which building materials and technologies can be developed locally, with minimum use of scarce foreign exchange.

xlvi. Recommendation 12: It is recommended that assistance, incentives, concessions, credits and contracts be used by all relevant authorities to stimulate the launching of small-scale and medium scale enterprises, including joint ventures using imported technology where necessary, for the production of the following goods and services, starting in the selected major urban growth centres:-

- (a) animal-powered equipment for transport, hauling, lifting and turning, including the making of vehicles, equipment yokes and harnesses, and the training, production, sale and hire of animals (camels, oxen, goats, donkeys, horses) and equipment;
- (b) modern medium-scale lime calcination plants to replace inefficient and fuel-wasteful traditional methods;
- (c) fibre-boards made from the fibres of waste banana tree trunks, using imported medium scale manufacturing plants which hot press a mix of wet and dry fibre into boards of a range of thicknesses, for use as building and furniture timbers for wall and ceiling linings, coverings and sheetings, and cut for use as beams, joists, rafters, trusses, purlins and battens, formwork, furniture, boxes and crates;
- (d) chip-boards made from sugar cane and/or other woody materials;
- (e) intermediate cost, light-weight, coatings, chemical additives, waterproof membranes (plastic or tar paper) and other modern manufactures which can strengthen and extend the life of traditional materials and technologies at a cost which is less than that of abandoning them and substituting more costly foreign materials or technologies;
- (f) biogas plants and insulated, fuel-efficient cooking stoves; solar and wind energy equipment and accessories;
- (g) hand tools, such as hoes, trowels, hods, shovels and wheel barrows;
- (h) the marketing and distribution of residual oils from the Iragosoma Refinery (when it re-opens) for the firing of lime, brick and tile Kilns, and as fuel for other small and medium-scale industries; and

- (i) the local manufacture of 200 litre and other size steel drums, using imported sheet metal.

X. AIDED SELF-HELP COMMUNITY DEVELOPMENT AND HOUSING

xlvi. When action has been taken along the lines recommended in Recommendations 1 to 12 of this report, to produce a greater variety and quantity of low to intermediate cost local building materials, and a higher quality and quantity of training in intermediate building technologies, it will be possible to significantly expand current levels of local public and private efforts in local public works, urban and rural settlement community development, and housing.

xlvi. Somalis, nomads and townspeople, are intelligent, resourceful and self-reliant: they have had to be, in order to survive in their difficult environment. They can again adapt and respond well to current economic and ecological circumstances. They have always designed and built their own housing shelter. Give them water, land, materials, tools, training, credits, community infrastructure and services, and they will continue to both design and build their own local communities and forms of housing, intelligently adapted to the climate, environment and their own perceptions of their own basic needs.

11. It appears that about 95 per cent or more of all housing shelter in Somalia is currently self-built by the people who need it and want it. This high degree of self-reliance is evident in the refugee camps, the nomad settlements, the villages and small towns, the major towns and in Mogadishu itself - at all levels of income. There is no immediately practical alternative to this and this high degree of self-reliance in actual housing shelter construction should be encouraged to continue for a long time to come.

1. Exceptions need to be made in the case of some housing for key government employees and technicians sent to secondary urban centres and rural areas to provide the training, extension and other special services. Formal housing, using imported materials, sometimes even fully imported prefabricated housing, will be needed in order to house key personnel starting new projects or initiatives outside Mogadishu. But to minimise criticism and avoid favouritism, such housing should remain Government property for the use of particular key personnel for limited time periods.

1i. In due course, small scale grants, loans and credit schemes can be developed into fully developed housing and small-business finance institutions. Studies of such institutions can be made, but the launching of them must await return to some greater degree of monetary stability and greater availability of building materials, trained workforce and institutional resources.

lii. Meanwhile, there should be a re-orientation of foreign technical assistance away from projects which try to directly build housing, towards projects to develop building materials and technologies; provide technical training, and set up site, services, materials, loans and credit schemes for self-help, owner-built, housing. This applies particularly to the USAID and Dutch Government sponsored efforts to build formal housing at Kurtunwaarey and Saablale.

liii. Experience over recent years at Kurtunwaarey and Saablale has demonstrated that attempts to mass-build formal, western style housing using unskilled nomad labour on pocket money wages in Government employment, directed by non-Somali-speaking foreign experts, is no solution to the housing needs of such settlements, and cannot be copied elsewhere.

liv. There is a need for a complete re-think of "housing" plans for the Kurtunwaarey, Saablale and Homboy nomad settlements. The existing plans for a series of sites for new villages may still be well-based, but previous concepts of Government-built, mass-housing projects should yield to programmes of Government action to give the settlers the leadership, training, materials, sites, services and credits to build their own housing.

lv. Recommendation 13. It is recommended that Government intervention in local community development and housing be launched in the selected major urban growth centres outside Mogadishu, by and through the Ministry of Local Government and Rural Development, and that Government action be to provide the basic essentials for people to build their own housing, namely:

- (a) land, in surveyed and pegged well-drained sites or plots, in planned layouts of settlements;
- (b) water supplies, from wells, and more formal systems delivering clean water to public standpipes;
- (c) other services, such as biogas plants for cooking and lighting; electricity; and solid waste disposal;
- (d) building materials and tools made available at reasonable prices in local markets;
- (e) the creation of new building material and tool production industries, plants and workshops;
- (f) in special cases, for the poorest groups, free grants of plots of land in government sites and services, new village

- or urban extension projects, and/or free grants of building materials and tools;
- (g) ~~simple~~ simple illustrated posters, booklets and sheets of drawings, showing how to build with the locally available materials;
 - (h) training in the production and use of self-made building materials and simple building technologies;
 - (i) government-provided physical, economic, and social infrastructure and services; roads, drains, water supply systems, fuel and energy supplies, schools, clinics, markets, transport, and the like; and
 - (j) loans and credits for plots of land, building materials and tools, for new small scale materials production industries, and for new small service and contracting businesses.

lvi. The Government may wish to request Technical Assistance in organising such programmes, from UNDP and UNCHS (HABITAT), for the posting of UN technical experts in Regional headquarter towns to work with Local Government authorities on pilot and demonstration projects. The Government may also wish that Technical Assistance be made available to the proposed Technology Leadership Training Institute so that Local Government Officer Trainees can be taught how to organise such projects.

ooo
ooo

JB.

