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UNITED NATIONS  
ECONOMIC COMMISSION FOR AFRICA

REPORT ON A MISSION TO SOMALIA  
(23 June - 22 July 1983)

By

Roger Hare  
Regional Adviser in Census Cartography  
Statistics Division

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This report is the sole responsibility of the writer. It has been submitted to the Department of Technical Cooperation, United Nations, which may alter or supplement these findings.

## I. INTRODUCTION

1. Summary. Census field mapping activities were initiated in 2 of the 80 districts. An important question-mark remains, however, over the conditions of use of the base maps for the rural areas. The military's National Cartographic Directorate (NCD) have indicated that CSD are only allowed to borrow the maps, which essentially means that their usefulness is limited as they have to be returned in good condition. But updating maps in the field requires that they be drawn on, folded, cut up and joined together according to the chief compass limits of the administrative boundaries.

2. It is recommended that CSD seek higher authority, therefore, to enable the maps to be used in the field as necessary. Census preparations have started late considering that enumeration is presently scheduled for February 1985, and as there are no cartographic equipment and materials available, even further delays could be incurred if tracings or photocopies have to be made of the 470 NCD base maps before field work can begin in earnest.

3. The de facto head of the embryonic Cartographic Unit, together with the graduate geographer, will be going to Liberia in September 1983 for 3 months training in census cartography under the UN Technical Cooperation among Developing Countries scheme. The experience may be beneficial but the timing is unfortunate with the preparatory field activities having just started, and no other cartographer is available who can supervise the field work while the CSD Cartographer is away.

4. The Regional Adviser investigated whether there were any resident Italian cartographers who could be employed on the census project, particularly as Italian Trust Funds (c. \$500,000) are involved. It was determined, however, that there are in fact no Italian cartographers currently working in the country. The Director of CSD advised, therefore, that CV's of outside candidates for the one year post beginning January 1984 be forwarded to him without delay. A cable to this effect was sent to DTCD from UNDP Mogadiscio, but no reply was received by the time of the Regional Adviser's departure. It must be stressed that the UN Cartographer is urgently required.

5. In consultation with the Director of CSD, lists of cartographic equipment and vehicles with full specifications were made out by the Regional Adviser and submitted to the Resident Representative UNDP Mogadiscio, with a copy pouched to Statistical Office, New York.

6. The mission. The mission was undertaken at the request of the Central Statistics Department (CSD) of the Ministry of National Planning, Mogadiscio. The terms of reference may be defined as:

- (a) to assess the suitability of the NCD base maps for census purposes;
- (b) to assess the suitability of the 1975 census maps as a start-up point for the forthcoming cartographic work;
- (c) to investigate whether there are any resident Italian cartographers who could work on the census project;
- (d) to prepare cartographic equipment and vehicle orders;
- (e) to initiate census cartographic field work;
- (f) to train staff in census mapping field work.

7. The schedule of the mission was:

23 June - Addis Ababa to Mogadiscio  
15 July - Field trip to Afgoi District  
16 July - Field trip to Afgoi District  
18 July - Field trip to Balad District  
19 July - Field trip to Balad District  
20 July - Field trip to Balad District  
22 July - Mogadiscio to Addis Ababa.

II. CONSULTATIONS

8. During the mission discussions were principally held with the persons whose names are given in Annex I.

III. BACKGROUND

9. The first census covering population and livestock was held in February 1975 during which a population of 3.4 million was recorded. The government had doubts, however, as to the accuracy of this figure, thus a report entitled "The Population of Somalia - An Analysis of 1975 Census" has recently been produced by the UN Demographer/Analyst at CSD to clarify the issues. The government have agreed in principle to the publication of this document after editing and revision.

10. Government have expressed a wish for UNFPA to assist with the next census which, as previously mentioned, is presently planned for early 1985. This will cover population and housing, but not livestock. The Director of CSD noted that although it had not been finally decided, it was probable that refugees would not be included in the census. He indicated that the water-point approach would again be used for enumerating the nomadic population.

11. "Preparatory Assistance to 1985 Population and Housing Census" (SOM/80/P02). One of the reasons why an undercount may have occurred in 1975 is that the geographic frame was both inaccurate and incomplete. For example, the "Analysis" report notes that only 27 districts out of 64 existing at the time had maps, and that maps were also incomplete for the urban areas, including the capital, Mogadiscio.

12. A preparatory activities project was, therefore, supported by UNFPA so that, broadly speaking, the defects of the 1975 enumeration could be corrected in good time for the 1985 census. The aims were: to start up a permanent census cartographic unit; to undertake field mapping to study the seasonal migratory patterns of nomads (who make up an est. 51% of the population); to test census documents and enumeration procedures; and to train two persons in census cartography for one year at the US Bureau of Census.

13. Because of financial constraints UNFPA were unable to field any experts for the project and the only positive achievement so far has been the training aspect. But since their return from training is August 1982 up until the time of the mission, the trainees had not made any start to preparatory activities, and one of the two has now made plans to resign from CSD so as to attend university.

14. "Population and Housing Census" (SOM/84/P01). In March/April 1983 the Interregional Adviser in Demographic and Social Statistics, UNSO New York (Mr. J.P. Brenez), assisted CSD in formulating a draft project document to cover the census enumeration itself. It is expected that the Preparatory Assistance budget for 1984 will be absorbed into the main project after it is approved.

15. Administrative Structure-Rural. The country has 16 Regions which are sub-divided into 80 districts. In the more populated riverine regions (e.g. Middle Shebelle, Lower Shebelle) the districts are sub-divided into zones (beels), though the actual number of districts divided in this way could not be determined. It would appear that the beels do not have actual boundaries but are groups of villages administered by a Beel Council. The head of each Beel Council sits on the District Council which is headed by a District Chairman. The District Council assists the District Commissioner (who may be civil or military) in running the district. Each region is headed by a governor.

16. Boundaries of Regions and Districts. The regional and district boundaries are, generally speaking, imaginary straight lines separating localities. The Director of NCD noted that the boundary lines were not based on any geographical or grid co-ordinates, and there were no legal written descriptions to the boundaries. But the NCD had, a month previously, presented the Ministry of Interior with a set of maps at 1:1 Million scale, onto which boundary lines had been drawn, with a view to putting the boundaries on a more definitive basis. NCD are now waiting for the Ministry's comments on these proposals before proceeding further.

17. The Director-General of the Ministry of Interior confirmed the above, but no maps were actually shown to the Regional Adviser. It was also not clear as to actually who had done the boundaries, i.e. whether they were surveyed in the field or sketched in the office by enquiry. The level of accuracy was also not specified, but it is probable that the 1:1 Million maps were American Operational Navigation Charts (ONC World Series air-charts) which are rather out-of-date and lacking in ground features. And as 1:1 Million is rather too small for plotting co-ordinates, it is suspected that the level of accuracy is not very high, but may be refined later using 1:100,000 maps. It was also not indicated when the Ministry would be returning the maps to NCD with their comments, or when the proposals would be put into a written form.

18. In view of the uncertainties the Regional Adviser suggested to the Director of CSD that the census field mapping should go ahead, with the boundaries plotted according to local officials and village functionaries. But it should be made clear to all concerned that the alignments shown are for census purposes only. At a later date when the situation had been clarified, liaison can be made with NCD, and any significant differences in alignments can be noted and agreed upon.

19. Administrative Structure - Mogadiscio. Due to other commitments it was not possible to visit the offices of the Municipality of Mogadiscio, although provisional arrangements had been made. The Director of NCD had earlier informed us that new aerial photography had been taken of the city last year, and it was planned to map

the city centre at 1:2,000 and the suburbs at 1:10,000. It was not indicated, however, whether any at the mapping is being done at NCD or by an outside company (which is more probable), or whether photography could be made available for the census.

20. The region of Benadir essentially consists entirely of Mogadiscio. It has 13 districts which cover the urban area, plus a small surrounding rural area. It is suggested that considering the problems experienced in the capital during the last census, the Cartographer should investigate the actual situation as regards the district boundaries, the city boundary, town planning areas, the city's house numbering system and the available maps and air photographs as soon as possible.

21. Urban definition. There are about 17 main towns which are either regional or district capitals, and in addition every other district headquarters is also deemed to be urban irrespective of its population, amenities or way of life. Thus great variations in size occur with some urban areas having only a few hundred persons, up to Mogadiscio which now has an estimated population of 700,000.

22. Census Sub-Divisions - Urban and Rural Settled Areas. The Director of CSD indicated that a figure of 5.0 million should be used for census planning purposes as the present population of Somalia. The urban and rural districts (or beels where applicable) would be divided into EA's of about 150 households, with about 5 EA's forming a Supervisor's Area.

23. Census Sub-Divisions - Nomadic Zones. It should be noted that there are no districts which are exclusively settled and none which are exclusively nomadic, i.e. there is an overlap between the two ways of life. This lack of a clear-cut distinction complicates enumeration procedures enormously. During the mission field work was carried out in the two regions adjacent to Benadir in supposedly "settled" areas, and yet nomads and their camels were seen quite often, and even a nomadic camp was found. The Cartographer noted that the nomads come to Mogadiscio to sell camels and buy goods, and thus have to pass through the (mainly) settled areas.

24. The illustrates the fact that the formation of some kind of nomadic enumeration zones could only be made after an exhaustive enquiry has been made into nomadic movements. It is essential that the nomad's general seasonal migrations and the usual populations following such routes be thoroughly investigated by CSD. After the study, the findings can be drawn onto "flow" maps. These could perhaps be in the form of overlays with the flow arrows, the name of each nomadic group (or their leader) and the approximate population indicated. The scale of the overlays could be decided after the complexity of the situation has been determined, but they could possibly overlay planning maps showing district headquarters and census offices, water points and routes at 1:200,000 scale.

23. The Cartographer indicated that enumerators would be stationed at all the major water points (c.3,000) in the country. The surrounding settled population, as well as the nomads, have to visit the water points in much of the country due to the almost total lack of water elsewhere, particularly in the dry season. At the water-points the respondents will be asked by the enumerators whether they are nomadic or settled. If they are nomadic they would be enumerated there and then, but if they are settled they will be enumerated in their villages by the enumerator covering that EA.

26. The findings of the field work for the 1975 census may no longer be valid, and because no recent studies have been made on nomads and their possible numbers using the major water points during the dry month of February, it is extremely difficult to make an estimate of the number of enumerators and supervisors needed for the water-points and thus for the census as a whole.

27. For this reason alone it is essential that a serious pilot census be undertaken, preferably in February 1984, which will amongst other things, look into the question of feasible workloads for enumerators camping at water-points, as well as workloads for enumerators covering the settled population in the remote areas.

28. CSD Regional Offices. So far CSD does not have any offices outside Mogadiscio, but the Director of CSD indicated that some regional statistical offices are to be set up shortly. He noted that his priority was to set up an office later this year in Kismaio, the capital of Kismaio region in the extreme south of the country. In 1984 regional statistics offices are due to be set up in Baaloda, Galkaio, Hargeisa and Erigavo, thus each office would be responsible for 2-3 regions. The future programme is to expand the network so that each region has its own statistics office.

29. The Director hoped that some of the census cartographic work would be carried out from these regional offices. This may be satisfactory as long as all the staff involved receive the same training at CSD, otherwise field work standards may be uneven. The problem of adequate supervision may also arise, as it may be difficult for the Cartographer to maintain contact with the regional offices. It would also be very costly to equip each regional office with drawing equipment and materials, thus any duplication of facilities should be kept to the minimum. In short, it may be feasible to carry out field mapping and household counts from the regional offices but not full-scale census map production which should be a centralised operation.

#### IV. PROGRESS

##### (a) The 1:100,000 and 1:200,000 NCD Base Maps

30. Somalia's overall population density of about 8 persons per square kilometre generally makes 1:100,000 scale maps extremely suitable for census operations in the rural areas. In addition, the 1:200,000 series will make good overall planning and reconnaissance maps. It is vital, therefore, that the two series be fully utilised by CSD field staff in the preparatory activities.

31. The Director of NCD noted that the maps were compiled in 1973-76 by Soviet aid personnel under the direction of the Somali Ministry of Defence. They were drawn and reproduced in the Soviet Union, which has meant that there is only a limited mapping capability at NCD now. 2,000 copies of each 1:100,000 sheet and 5,000 copies of each 1:200,000 sheet were colour printed. At the time of the break in relations the printed maps and the plate film-negatives had been sent to Somalia, but the air-photography negatives and prints, plus the printing plates themselves still remain in the Soviet Union, despite Somali government requests for their despatch.

32. Because of security aspects the NCD are unwilling to allow government departments and aid projects free access to the maps and their issue is carefully controlled. The Geological Survey Department, for example, have four prints of each sheet only on loan. In CSD's case, only a written request signed by the Director-General of the Ministry of National Planning specifically requesting that certain sheets be made available for census purposes ensured a loan, the duration of which was not specified.

33. As the film negatives of the printing plates have been returned, it was not clear why NCD cannot have more copies printed for civil use at the government printing department. Any military details not required can be deleted from the negatives beforehand with negative opaque solution and lithographer's tape. New printing plates can then be made and the copies run off.

34. The map series apparently covers the whole country except for a strip of land some 20 km wide along the de facto boundaries. There are 364 sheets at 1:100,000 and 106 sheets at 1:200,000, with four 1:100,000 sheets making up a 1:200,000 sheet, i.e. they cover the same area. NCD are presently arranging to have the 1:200,000 series-reduced to 1:500,000 and 1:1 Million by a German-American company.

35. The map numbering system is rather unorthodox and in this respect perhaps the most tangible accomplishment during the mission was the drawing up of a sheet index to the two series based on a 1:3 Million map of Somalia. This will enable the Cartographer to locate the area of coverage of any map required.

36. The 1:200,000 series is a direct reduction of the 1:100,000 material, so they do not contain any new information, but their compact scale can be well utilised in the initial field plotting of the regional and district boundaries. This information can then be **transferred** to the 1:100,000 series and refined at the time that the villages, water points, number of households and other details are checked and plotted in the field.

37. The final rural district census maps should on all occasions be produced at 1:100,000 even if this means drawing two maps for large districts. There may well be blank spaces on some of the maps in the sparsely populated north if 1:100,000 is used, but even the most remote districts will contain pockets of population where the extra space allowed by 1:100,000 can be well utilised. This will mean that the names and EA numbers are less crowded and thus clearer to read.

38. Where the population density is higher, for example in Lower Shebelle region, it may be advisable to use 1:50,000 enlargements. The Afgoi-Genale-Merka area has been enlarged photographically to 1:50,000 in Italy for the Italian Technical Assistance Unit at the Ministry of National Planning, and the Director of the Unit indicated that a copy could be obtained for census mapping. It is suggested that a print be loaned to the Cartographic Unit after the materials have arrived so that it can be drawn onto drafting film. If the entire district of Merka is not covered by the enlargement, the marginal areas could be enlarged by pantograph (see para 57.g).

39. For the field trips one copy of each of the relevant 1:100,000 and 1:200,000 sheets was obtained on loan, and the Director of CSD noted that he would try and get 2 copies of each sheet in future. It was pointed out, however, that for sheets on which a number of boundaries occurred up to 6 or 8 copies may be required, but where there were no boundaries, two copies may be sufficient, i.e. one for the district base map and one for reference purposes in the field.

40. During the field trips the maps were folded at the sheet edges and updated with a soft pencil. But we were unable to cut them up, join them with cello tape or draw boundaries on them with coloured marking pens, as is usual in field mapping work.

41. The Cartographer understands how the different sheets in the blocks fit together, so "temporary fits" - achieved perhaps by holding down 2 or 3 maps in the wind on the bonnet of a Land-Rover - are not too much of a problem for him. But he is going to Liberia during a period where it is vital that the field work be carried on at all speed during his absence. But it is feared that un-joined maps will be a problem for inexperienced staff who are not familiar with map numbering systems, and who will be staying in the field for perhaps weeks at a time. For them the maps should be pre-joined into large blocks in the office by a responsible person before field work begins, so that the overall picture can be seen more easily when in the field.

42. Field Mapping Teams. Precise details of the number of field mapping teams that could be raised were not gone into during the mission, but it is thought that to enable the field mapping of the settled population to be carried out properly over a 12-15 month period, about 10-12 teams of 4 persons each would need to be trained and deployed in the field. In addition 10-12 vehicles and drivers would be required. If this number of staff cannot be raised at CSD itself, then there would be a need to transfer them from other departments of the Ministry of National Planning or from other ministries.

43. Proposals for a Survey Department. The Ministry of National Planning realise that the 1:100,000 and 1:200,000 maps were produced for military purposes and that it is perhaps difficult to use them for civil projects. They also realise that the maps are rapidly going out of date and that new ones are required.



44. The Ministry, therefore, made a proposal to set up a civil Surveys Department within the ministry itself. This would surmount the bottleneck created by the lack of maps for the implementation of agricultural and industrial development projects in the country.

45. The Italian Technical Aid Unit at the Ministry thus drew up a preliminary paper outlining what was required. It was estimated that for survey and plotting instruments, drawing and scribing materials, vehicles and training facilities, about 530 million Italian lire would be required. A project director, two photogrammetrists two cartographers, a photo-laboratory technician and other aid personnel would cost another 250 million lire, giving a total set-up cost of 780 million lire (US\$4.2 million).

46. But the proposal has run into funding difficulties and has not reached the detailed project stage. It would be safe to assume, therefore, that as the centre would not be operational for many years, if at all, it will not be in a position to help the census project. Nor can the proposals be taken into account when setting up a small census cartographic unit within CSD itself.

(b) The 1975 census maps

47. During the mission the Regional Adviser was able to examine some of the maps produced by the UN Cartographer on the 1975 census (Mr. B. Cohen). The original drawings have been lost but some paper prints remain in a cupboard and in a file kept by the Director of CSD. No inventory was shown to the Regional Adviser, though the Cartographer noted that he had made one in accordance with the recommendations of the Technical Adviser, Statistical Office, New York (Mr. A.K. Maitra).

48. The scale of the 1975 rural area maps (1:500,000) is far too small to be of much use. The maps are very rudimentary and contain only some village names, routes and water points. They do not show EA's, Supervisor's Areas or any surrounding details.

49. The urban area maps of 10 towns that were seen by the Regional Adviser, however, are of the useful scale of 1:5,000. It would appear that the maps were plotted from aerial photographs and do not show any EA or Supervisor Area boundaries, or even ward or town boundaries. But at least they have a few names and provide a starting point for the urban area mapping, particularly as there does not seem to be anything more up to date available.

(c) The Census Cartography Post

50. As mentioned in the summary the Regional Adviser looked into the question as to whether there are any Italian cartographers in the country who could work on the census project. In view of the increasingly tight schedule it would have been quicker to employ a locally based person than to wait for an outside candidate to be recruited.

51. The Regional Adviser went to the Italian Embassy, Mogadiscio, and the First Secretary thought that the only possibility would be the Technical Officer working with the Italian Technical Assistance Unit at the Ministry of National Planning. The Director of the Unit noted, however, that the person in question was a field surveyor presently working on the layouts for banana plantations in the Genale area. He had little drawing experience and none with censuses. He apparently spoke French as well as Italian, but not English or Arabic. The Director of CSD agreed with the view that the surveyor would not be suitable for the Cartography post.

52. The Resident Representative of UNDP Mogadiscio suggested that attempts be made to recruit a UN Volunteer (possibly Italian) for the position. The Director of CSD later noted, however, that he insisted on having a cartographer with previous census experience, and it may be difficult to locate such a Volunteer candidate.

53. Duration of the Position. In his report the Interregional Adviser (Mr. Brenez) indicated that the UN Cartographer was initially to be assigned for 24 months from July 1982 on SOM/80/P02, but due to budgetary problems UNFPA were unable to field the expert. The 1984 SOM/80/P02 budget shows a period of 18 months for the post, but this has been reduced to 12 months in the draft project document for SOM/84/P01.

54. The Director of CSD thought that a one year appointment would be sufficient as he expected that a lot of the ground work would be completed before the expert's arrival. But the following points can be considered:

(a) Preparatory activities have only just started, and the CSD Cartographer will be on training for the latter period of the year. It is quite likely that not much work will be done while he is away;

(b) It could depend on whether all the cartographic equipment and materials arrive early during the UN Cartographer's contract. Arrangements should be made, therefore, to ensure the timely delivery of the equipment;

(c) The census cartographic unit is being set up from scratch. This will mean training for office and field staff, in addition to the expert's supervision of on-going work;

(d) The expert could be involved with the study on nomads, for example, plotting the information on maps;

(e) The pace of work could well depend not on technical issues but on the efficiency of the logistical support available, i.e. vehicles, drivers, fuel, spare parts, camping equipment, food supplies in the remote areas, etc.

55. A one year appointment may be sufficient for the completion of preparatory activities if it were not for the nomadic factor. Such a study could take many months, and the cartographic preparations cannot be finalised until it is done. It would seem that the following conditions would have to be met to enable the cartographic work to go ahead with thoroughness after the expert's arrival:

- (a) The expert has to arrive on time, i.e. January 1984;
- (b) The cartographic equipment and vehicles have to be immediately available;
- (c) Some 10-12 field teams will have had to be formed and ready for training and field work;
- (d) The NCD base maps have to be freely available;
- (e) CSD staff, in the absence of their Cartographer, will have had to complete some regional and district boundaries, so that the drawing work can begin in January 1984 (EA's would be added to the census maps in the office at a later stage);
- (f) Rooms (with furniture) would have to be ready for use as a Cartographic Unit from January 1984.

56. If all these pieces fall into place then it may be possible that the UN Cartographer can assist with the completion of many preparatory aspects within 1984 and within his contract period.

(d) Cartographic Equipment and Vehicle Orders

57. Cartographic Equipment. When making out the cartographic equipment and materials order, the following points were considered:

- (a) That there is no equipment available from the 1975 census (except a tee-square and one roll of tracing paper);
- (b) That there are no drawing equipment or materials available locally;
- (c) That CSD are setting up a statistical cartographic unit from scratch;
- (d) That some camping equipment is required for the field mapping work as well as for the enumeration of nomads at water points;
- (e) That the Cartographer is the only person to have received formal training in cartography. Note: The only other persons having drawing experience were a Statistical Assistant who worked on the 1975 census, and the Supervisor of the Computer Coding and Correction Section. The latter will be attending a demographic training course at US Bureau of Census from August 1983 to January 1984.
- (f) That there is little knowledge of Italian equipment locally;
- (g) That a graphical pantograph (ex - FAO project) in seemingly good working order is in UNDP Mogadiscio storeroom. The Resident Representative indicated that this could be loaned to the census project;
- (h) That the Resident Representative noted that perishable items (eg printing paper, film) could be kept in the UNDP storeroom, which is air-conditioned and secure;
- (i) That some basic and essential priority items were urgently required in order to get the work started.

58. It was realised that the estimated overall cost of \$36,000 (incl. 25% air-freight) exceeded the 1984 SOM/80/P02 allotment of \$18,000 for Office and Expendable Equipment. The quantities requested could have been cut but this may leave a needed item lacking or in short supply at a critical juncture (e.g. prior to enumeration).

59. It was instead suggested to the Resident Representative that the items be purchased on a priority basis, with half coming from SOM/80/P02 and the remainder from the Population Census Project SOM/84/P01 after it is approved.

60. The priority items are listed below with the "Item Nos." referring to the left hand column of the Cartographic list, which is shown as Annex II:

<u>Priority Items</u>	<u>Item Nos</u>
Map printer and accessories	1-6
Printing paper, drafting film, tracing paper and ammonia	9-12, 14-16
Map filing Cabinets	19-21, 48-49
Rotring items (technical pens, ink etc)	68-105

The total cost of these priority items (incl. air-freight) would be about \$18,000.

61. Vehicles. Although it was realised that Italian vehicles (eg. the Fiat Campagnola) should be considered, the Director of CSD noted that they were not strong enough for local conditions, they were too small, not well equipped, and they required a lot of costly maintenance after the first year.

62. UNDP Mogadiscio had been studying the costs and availability of petrol and diesel fuel in Mogadiscio itself and had been recommending to projects that diesel vehicles were better. The Director of CSD, however, noted that he preferred petrol-engined vehicles, i.e. Land-Rover 109" Station Wagons. This view was supported by the Transport Management Officer, UNICEF Mogadiscio, who mentioned a number of technical problems affecting diesel engines in dusty rural areas, i.e. where the vehicles would normally be used.

63. Although with proper maintenance diesels would last longer, local mechanics apparently need special training and tools for diesel engines, and this level of competence may not be available in the remote areas. The Transport Management Officer also indicated that diesel fuel was even more difficult to obtain than petrol in the isolated districts away from the main roads.

64. As such, the specifications and optional equipment (eg heavy duty jack, extra 10 gallon fuel tank) that the UNICEF Officer suggested were set down by the Regional Adviser and submitted to the Resident Representative. They are shown as Annex III. Of the \$103,020 in the 1983 SOM/80/P02 budget \$84,000 has been allocated for seven vehicles. The cost of the seven was estimated to be \$94,000 (incl. sea-freight), therefore, the number of vehicles supplied under P02 may have to be cut to six, with the other coming from the main project.

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Note: The above points on cartographic equipment and vehicles were mentioned in a covering memo to the Resident Representative UNDP Mogadiscio, and in a letter from the Director of Statistics Division, ECA, to the Director of Statistics Office, New York.

(e) Census Cartographic Field Preparations

65. The Director of CSD originally intended that the Regional Adviser should prepare census maps in five areas where particular problems had occurred in 1975, including the nomadic area of Afmadow District near Kismaio. Exceptional rainfall in Kismaio, however, plus the need to examine other issues during the mission, made a change of plans necessary.

66. Field Trips. Five one-day field trips were made, totalling 802 km (501 miles). They were undertaken in the company of the Cartographer, the Graduate Geographer, the Head of Research and Publication Section, the Supervisor of the Computer Coding and Correction Section, two Statistical Assistants and a CSD driver. The boundaries of Afgoi and Balad Districts were plotted onto the 1:200,000 maps and later transferred to the 1:100,000 series by the Cartographer. The main villages and water points were listed and population estimates were made by enquiry. But neither district was considered complete by the Regional Adviser as it was pointed out that population or household estimates would have to be made by quick-counts or actual household listing, as the enquiry method was not reliable.

67. The Cartographer thought that it would take too long to do actual population or household counts and that the enquiry method may have to suffice. But he agreed that the enquiry method would not be sufficient if the figures were only obtained from the District Council Offices. They have to be obtained from the villages themselves with the village headmen and elders supplying the information personally. If they are unable to give an estimate of the number of households in their village, or if the answer seems incorrect, then a quick-count would have to be made-with the headman's approval.

68. This point was adequately illustrated during the field trips to Balad District. For example, the number of households obtained from the District Chairman's Office for the beel around Garsaale village was 1130. The figure obtained from the Garsaale village headman was 399 households.

69. Another example: the figure obtained from the District Council Office for the beel around the coastal village of Warshikh was 1700 households, but that obtained from the village headman of Warshikh was 600 households. There was no time to go back to the District Council Office to ask them how their figures were obtained or exactly what they included, but the Head of Research and Publications Section speculated that:

- (a) The District Council figures included villages, aqallos (sub-villages) and nomadic families, whilst the village headman's figures were just for the villages themselves;
- (b) There are a lot more people living in aqallos or are nomadic in the area than originally supposed;
- (c) The District Council figures were for population and not households;
- (d) The District Council figures were not obtained by personal visit, and may be inflated.

70. Naming the Aqallos (sub-villages). The names of the aqallos are not indicated on the base maps, but are only shown with a dot symbol or with the notation "aqallo" or "aq.". It is suggested that the CSD field mapping teams pay much attention to recording all the aqallos belonging to each main village, and they should be listed separately on the field mapping forms.

71. At 1:100,000 it may not be possible to write all the names of the sub-villages on the maps, but where space allows this should be done. It is particularly important where the sub-village is some distance from the main village. To clarify the allegiance of the aqallos, the name of the main village can be shown in brackets underneath the name of the sub-village. This will help to ensure that sub-villages under the same main village are grouped together in the same EA. Main villages themselves can be indicated by a line drawn under the name.

72. Where there is no room to show these details on the map a circled number can be inserted by the aqallo which is repeated in the legend at the side, together with the relevant names. For example:

- (a) Warshikh (Main village)
- (b) Fula Dheere (=aqallo belonging to Warshikh)  
(V.H. Warshikh)
- (c) (3) (Figure on map)
- (d) (3) = Baqdaad (in legend)  
(V.H. Xawaardley).

73. The Household Estimates shown on the Base Maps. The legends of the 1:200,000 and 1:100,000 maps are in Somali and bear the following inscription:

Xalin	Buulooyin =
48/25	Sarreyaha - waa dhismaha oo dhan
	Hosseyaha - waa aqallo kaliyah

The figure 48 is the estimated number of households in the main village and 25 is the estimated number of households in the aqallos belonging to that village. The relevant figures are shown under the main village names actually on the maps that the Regional Adviser saw, i.e. those for Middle Shebelle and Lower Shebelle Regions. It is presumed they are shown on the maps for the rest of the country.

74. It is most unusual to find such information on a topographic map series. The figures were checked in a few of the villages, and were found to be of varying accuracy. For example the map indicated 76/20 for Baqdaad, i.e. 76 households in the main village and 20 in the aqallos. The village headman told us there were 75 households in the main village, but he could not give an exact total for the aqallos, but thought it more than 20. In Xawaardley village on the Shebelle river the figure given on the map was 600/0; the village headman noted that there were now 700 households in the main village but no aqallos as everyone was concentrated in one place along the river bank.

75. It must be emphasised that CSD should not take the map figures as being the basis for EA formation because:

- (a) The sample was very small;
- (b) The information is now practically 10 years old;
- (c) It is not known if the information is based on 1975 census figures or if it was done as an exercise at the time of the field completion of the base maps;
- (d) It is not known if it was done by household counts or by enquiry;
- (e) This is a long-settled agricultural district near the capital city with relative ease of access. Figures for the remote areas may not prove to be so correct.

It is suggested that enquiries be made to see if the figures were produced by NCD personnel, and by what methodology.

(f) Training in Census Field Work

76. It was the Director of CSD's intention to have seven persons trained for one week in the classroom by the Regional Adviser before proceeding to the field. Accordingly a copy of a manual and field forms previously written by the Regional Adviser was photocopied and distributed. But due to it being Ramadan, which shortened the official hours, plus other commitments, only one session attended by five persons was possible before field work began. The following points were discussed in class and in the field:

- (a) Map identification from a sheet index
- (b) Delineation of boundaries
- (c) Listing of villages, aqallos, institutions, etc
- (d) EA formation and numbering
- (e) Map measurement related to the vehicle trip recorder
- (f) Pacing in urban areas
- (g) Sketching of villages containing more than one EA
- (h) Simplified contours.

V. PROGRAMME OF WORK

77. For the remainder of 1983, i.e. after the Cartographer's departure for Liberia, the work will essentially consist of continuing the field work in some of the remaining 73 districts by the methods previously described in the report.

78. There was not sufficient time during the mission to investigate all the possible sources of maps and information, and it is suggested these are followed up by the Director of CSD and by the Cartographer on his return from training:

Some Further sources of information

- (a) The Municipality of Mogadiscio (see paras 19-20)
- (b) Dept. of Water Supply of Ministry of Natural Resources
- (c) Ministry of Agriculture

- (d) Irrigation Division of the Ministry of National Planning
- (e) Agency for developing the Juba River basin
- (f) Geological Survey Department (for old British Somaliland 1:125,000 base maps)
- (g) University of Somalia
- (h) National Monitoring and Evaluation Facility (World Bank project at the Ministry of National Planning)
- (i) Air Survey Development Company
- (j) Desert Locust Control Organisation
- (k) Geosource (Texaco)
- (l) International Development and Research Centre (IDRC) (for socio-economic survey in 15 villages in Northern Somalia)
- (m) Settlement Development Agency (Government agency to settle nomads)
- (n) UNDP fisheries projects (development of fishing villages)
- (o) UNDP Rural Water Supply project
- (p) EEC/ODA/USAID offices etc.
- (q) Ministry of Livestock, Forestry and Range
- (r) National Tsetse and Trypanosomiasis Control Project (for new 1:30,000 air photography of southern Somalia)

## VI. CONCLUSION

79. It will be appreciated that if the census enumeration is to be well planned and the results accurate and readily acceptable to the government, then the cartographic preparations will have to be thorough. But thoroughness needs good management as well as strong execution. For this reason it is considered important that a Census Office and a Census Technical Committee is set up as soon as possible.

80. One of the Technical Committee's first tasks will be to formulate a methodology for the field mapping and obtaining household estimates. The enquiry method favoured by the Cartographer is quick and demands less personnel and training than quick-counts, and if the census is to go ahead in 1985 it may have to suffice. But it is not a thorough method as far as small, scattered sub-localities are concerned. It may not, for example, result in the aqallo population being properly accounted for on the maps, as they may never be visited during the household estimates exercise.

81. It seems to be government policy to concentrate on the water point approach for the enumeration of nomads, as there is apparently no officially designated hierarchy or tribal distinction between nomadic groups. But the Cartographer noted that the chief of a nomadic group (nabadoon), the sub-chief (samadoon), and the nomadic scouts (sahan) would be consulted during the field mapping and during the nomadic study, as they are good sources of information on the location of water points and the number of families using a particular water point each day. A UN Census Adviser is due to be appointed to the project in January 1984. It would be much preferable if he has already had some experience of studies on nomads and their enumeration.



82. There is a need to begin a small publicity campaign now that field mapping activities have started. Some radio and newspaper spots may be appropriate as local officials seemed to be quite unaware of the reason for our presence in the field. It could, perhaps, also be emphasised that the census is a national project in which all government departments (and the military) have a part to play.

83. This time the census will not have the advantage of being part of the Rural Development Campaign with its publicity output, personnel, transport and administrative support. There is, therefore, a great need to speed up the preparatory processes, eg. transferring staff, vehicles and funds to Census Office.

84. The UN Cartographer arrived 21 months before the 1975 enumeration (in May 1973) and still could not complete cartographic preparations, so it is apparent that the expert this time is already way behind schedule and urgently required.

85. The Regional Adviser was impressed by the CSD Cartographer's ability in the field, particularly with his knowledge of local conditions and personality when dealing with local officials. He also understands census procedures as he worked on the 1975 census as a supervisor. But he will require a lot of help from the UN Cartographer in setting up the drawing office and in the actual production of the census maps. It would be preferable, therefore, for the candidate for the UN post to have strong supervisory capabilities.

86. The Assistant Resident Representative at UNDP Mogadiscio is currently handling UNFPA projects, but as he is extremely busy already it is considered that there is a need for UNFPA to appoint someone else full time to help him, particularly with such a large project as the census coming up. One area for attention would be equipment procurement. In the past CSD has experienced serious delays and losses of equipment and with logistical support being such an important component of the census there is a great requirement for close coordination between UNDP Mogadiscio, DTCD, and UNFPA Headquarters on these matters.

87. In conclusion, it must be said that looking at the situation realistically, the hopes for a 1985 enumeration do not look bright. A very late start has been made to preparations and the Census Office and Cartographic Unit are still not operational, and may not be so for some months.

88. The Director of CSD, however, is optimistic that things will speed up, particularly if UNFPA agree to the draft project proposals for SOM/84/P01 as they stand. But this is doubtful when considering UNFPA's present financial difficulties.

89. A Tripartite Review is to be held in October-November 1983, and by this time further information on the UNFPA budget considerations should be available. It is hoped that the TPR will consider whether a good 1985 enumeration is feasible or if it would be better to wait until the following year. The Regional Adviser has provisionally agreed with the Director of CSD to return for another mission in February 1984, when a further assessment of the cartographic situation can be made.

# ANNEX I

## LIST OF PERSONS WITH WHOM DISCUSSIONS WERE HELD

### Government (CSD)

Mr. Awil Mohamed Farah	Director
Mr. Mohamed Ahamed Wais	Cartographer
Mr. Ali Ibrahim Ahmed	Head of Research and Publications Section
Mr. Aden Ahamed Mathow	Supervisor, Computer Coding and Correction Section
Mr. Abdirasaq Dini Osoble	Graduate Geographer
Mr. Musa Mohamed Hassan	Statistical Assistant
Mr. Ali Gaas	Statistical Assistant
Mr. Knut Westlen	Adviser on Agricultural Statistics, (Statistics Sweden)
Mr. Ulf Olsson	Expert on Sampling Statistics, (Statistics Sweden)

### Ministry of National Planning

Mr. Franco Beccari	Director, Italian Technical Assistance Unit, Agriconsulting S.p. A.
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### National Cartographic Directorate

Mr. Ibrahim Elmi Gaileh	Director
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### Ministry of the Interior

The Director-General

### Italian Embassy, Mogadiscio

Mr. Gianfranco Manigrassi	First Secretary
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### ODA

Mr. J.A. Gledhill	National Tsetse and Trypanosomiasis) Control Project, Ministry of Livestock, Forestry and Range
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United Nations

Mr. R.A. Berthwick	Resident Representative, UNDP
Mr. K. Imamura	Assistant Resident Representative, UNDP
Mr. M. Afzal	Demographer/Analyst (CSD)
Mr. M.P. Rao	Senior Data Processing Expert (CSD)
Ms. Shahira A.A. Faam	Associate Expert in Data Processing (CSD)
Mr. J.W. Wilberforce	Transport Management Officer, UNICEF
Mr. M.D. Baker	Exploration Geochemist (Geological Survey Dept.)

## ANNEXE II

## SOMALIA - CARTOGRAPHIC EQUIPMENT ORDER

ITEM N°	ITEM	QUAN- TITY	UNIT	SPECIFICATION	UNIT COST US \$	TOTAL COST US \$	SUPPLIER
1.	BLU-RAY DIAZO AMMONIA PRINTING MACHINE	1	-	-MODEL 350 -220 VOLT AC/50HZ -EXPORT MODEL -CAT. N°23-4040 -WITH WOODEN CRATED PACKAGING	3,000	3,000	KEUFFEL AND ESSER, 20, WHIPPANY ROAD, MORRISTOWN, NEW JERSEY USA
	ACCESSORIES FOR ABOVE						
2.	BASE CONSOLE	1	-	-CAT.N°23-4041	200	200	DITTO
3.	PRINT RACK	1	-	-CAT.N°23-4043	20	20	DITTO
4.	SCAVENGER	1	-	-CAT.N°23-4055	100	100	DITTO
5.	FILTER CARTRIDGES	100	-	-CAT.N°23-4056	1	100	DITTO
6.	ADAPTER KIT	1	-	-CAT.N°23-4059	50	50	DITTO
7.	PAPER WEIGHTS	12	-	-CAT.N058-0810 -LEAD FILLED	5	60	DITTO
8.	PLAN TRIMMER (WITH STAND)	1	-	-MODEL 913	300	300	OCE-NEDERLAND B.V. BOX 101, VENLO, NETHERLANDS
9.	DRAFTING FILM	20	ROLLS	-CHARRETTE PREMIUM DRAFTING FILM -20 YARD ROLLS -.003" DOUBLE MATTE -SIZE 30" -ITEM 11-1251	62	1,240	CHARRETTE, 31, OLYMPIA AVENUE P.O. Box 4010, WOBURN, MASSACHUSETTS, 01888-4010, USA
10.	DRAFTING FILM	5	ROLLS	-CHARRETTE PREMIUM DRAFTING FILM -20 YARD ROLLS -.003" DOUBLE MATTE -SIZE 42" -ITEM 11-1255	86	430	DITTO
11.	TRACING PAPER	20	ROLLS	-916H CHARPRINT PLAIN ROLLS -20 YARD ROLLS -SIZE 30" -ITEM 10-0204	19	380	DITTO

ITEM N°	ITEM ITEM	QUAN- TITY	UNIT	SPECIFICATION	UNIT COST US \$	TOTAL COST US \$	SUPPLIER
12.	TRACING PAPER	5	ROLLS	-916H CHARPRINT PLAIN ROLLS -20 YARD ROLLS -SIZE 42" -ITEM 10-0208	23	115	DITTO
13.	GRAPH PAPER	2	PKTS	-METRIC GRIDDED MEDIA -OPAQUE -MFG N°341-M -ITEM N° 10-4167	8	16	DITTO
14.	DIAZO PRINTING PAPER	130	ROLLS	-2918-1 WARM BLACKLINE -50 YARD ROLLS -SIZE 30" -ITEM 17-1003	17	2,210	DITTO
15.	DIAZO PRINTING PAPER	40	ROLLS	-2918-1 WARM BLACKLINE -50 YARD ROLLS -SIZE 42" -ITEM 17-1007	24	960	DITTO
16.	AMMONIA	10	CASES	-26°BAUME AMMONIA -ITEM 17-4028	24	240	DITTO
17.	CHARRETTE STOOLS	4	-	-CAMBRIDGE ADJUSTABLE STOOL -COLOUR WHITE -ITEM 18-3206	48	192	DITTO
18.	DRAWING TABLES	4	-	CAMBRIDGE FOLDING DRAWING TABLE -BOARD SIZE 30"x42x $\frac{3}{4}$ " -BASE COLOUR WHITE ITEM 18-0198	165	660	DITTO
19.	FLAT FILES	4	-	-CHARRETTE PREMIUM FLAT FILES K.5341 -5 DRAWER, WHITE -53"x41"x16" -ITEM 18-1137 -WITH WOODEN CRATED PACKAGING	547	2,188	DITTO
20.	CLOSED BASE (FOR THE ABOVE)	2	-	-S.5341 BLACK -ITEM 18-1139	79	158	DITTO
21.	PREMIUM FILING CABINETS	2	-	-FOUR DRAWER FILES -LEGAL SIZE, WHITE -ITEM 18-0966	416	832	DITTO

ITEM N°	ITEM	QUAN- TITY	UNIT	SPECIFICATION	UNIT COST US \$	TOTAL COST US \$	SUPPLIER
22.	STAINLESS STEEL STRAIGHTEDGES	2	-	-SIZE 18"x1 1/2" -ITEM 21-6318	19	38	DITTO
	"	1	--	-SIZE 36"x2" -ITEM 21-6336	31	31	DITTO
	"	1	-	-SIZE 48"x2" -ITEM 21-6348	41	41	DITTO
23.	METER RULE	1	-	-FAIRGATE METER RULE -ALUMINIUM -ITEM 29-1010	8	8	DITTO
24.	LASICO COMPENSATING PLANIMETER	1	-	-MODEL N.30 -ITEM 31-4242	180	180	DITTO
25.	INDUSTRIAL BLADES	1	BOX	-TEMPLAR BLADES -ITEM-33-2128	12	12	DITTO
26.	SCISSORS	1	-	-CHARRETTE STAINLESS -LENGTH 5 1/2". -ITEM 21-2591	8	8	DITTO
27.	MASKING TAPE	20	ROLLS	-CHARRETTE 1" WIDTH -ITEM 21-3284	3	60	DITTO
28.	MASKING TAPE	3	ROLLS	-3M 202 2"WIDTH -ITEM 21-3217	8	24	DITTO
29.	MAGIC MENDING TAPE	5	ROLLS	-72YARD ROLLS -1"WIDTH -ITEM,21-3819	6	30	DITTO
30.	TRANSPARENT CELLO- PHANE TAPE	20	ROLLS	-3M600 1" WIDTH -ITEM 21-3606	4	80	DITTO
31.	CHALK	6	BOXES	-WHITE -ITEM-18-6917	1	6	DITTO
32.	STAPLER	1	-	-FABER-CASTELL N°17 -ITEM 21-2653	14	14	DITTO
33.	STANDARD STAPLES	2	BOXES	-ITEM 21-2607	3	3	DITTO
34.	CLIPBOARDS	20	-	-LENGTH 15 1/2" -LEGAL SIZE -ITEM 21-2656	2	40	DITTO
35.	RUBBER BANDS	1	BOX	-SIZE 2"x1/22 " -ITEM 21.2520	7	7	DITTO
36.	RUBBER BANDS	1	BOX	-SIZE 3"x1/32 " -ITEM 21-2522	7	7	DITTO
37.	RUBBER BANDS	1	BOX	-ASSORTED -ITEM 21-2524	7	7	DITTO

ITEM N°	ITEM	QUAN- TITY	UNIT		UNIT COST US \$	TOTAL COST US \$	SUPPLIER
38.	HAND MAGNIFIER	1	-	-BAUSCH AND LOMB -2 1/2 "DIAMETER. -ITEM 31-5702	12	12	DITTO
39.	MAPPING PEN NIBS	6	DOZEN	-HUNT ARTISTS PENS -102 CROW QUILL -ITEM 24-5745	6	36	DITTO
40.	MAPPING PEN NIBS	6	DOZEN	-HUNT ARTISTS PENS -103 MAPPING -ITEM 24-5747	5	30	DITTO
41.	MAPPING PEN HOLDERS	1	DOZEN	-102 CROW QUILL PEN HOLDER -ITEM 24-5785	6	6	DITTO
42.	MAPPING PEN HOLDERS	1	DOZEN	-104 PEN HOLDER -ITEM 24-5791	6	6	DITTO
43.	MARKING PENS	10	-	-EBERHARD FABER DESIGN ART MARKERS -BLACK, BULLET POINT -ITEM 23-2316 -MPG N° 229 LF	2	20	DITTO
44.	MARKING PENS	10	-	-BLACK, FINE POINT -ITEM 23-2318 -MPG N° 229 LU	2	20	DITTO
45.	MARKING PENS	10	-	-RED, BULLET POINT -ITEM 23-2544 -MPG N° 336 LF	2	20	DITTO
46.	MARKING PENS	10	-	-RED, FINE POINT -ITEM 23-2546 -MPG. N° 336 LU	2	20	DITTO
47.	MARKING PENS	10	-	-PENTEL MM50 PERMANENT BULLET TIP -BLACK, ITEM 23-3950	2	20	DITTO
48.	VERTICAL PLAN FILING CABINETS	2	-	-AO LETO QA FILE -CODE 3006 -EXPORT MODEL WITH WOODEN CRATED PACKAGING	600	1200	HARPER AND TUNSTALL LTD. DENINGTON, WELLINGBOROUGH, NORTHANTS, ENGLAND, UK.
49.	PLAN FILING STRIPS (FOR THE ABOVE)	10	PKTS	-AO SIZE PRESSPAHN -CODE 3103	15	150	DITTO

ITEM N°	ITEM	QUAN- TITY	UNIT	SPECIFICATION	UNIT COST US \$	TOTAL COST US \$	SUPPLIER
50	LIGHT TABLE	1	-	-BB42F FLOOR MODEL -30"x40" GLASS AREA -WITH LIGHT DIFFUSION SHIELD -220 VOLT EXPORT MODEL WITH WOODEN CRATED PACKAGING	600	600	NU-ARC CO.LTD., INTERNATIONAL DIVISION, 4100 W. GRAND AVENUE, CHICAGO, ILLINOIS, USA USA
51	NASHUA PLAIN PAPER COPIER	1	-	-MODEL 1218 -220 V/50 HZ -WITH WOODEN CRATED PACKAGING	3500	3500	NASHUA INTER- NATIONAL, SALES SERVICE INC., 1ST FLOOR, CORY HOUSE, THE RING, BRACKNELL, BERKSHIRE, ENGLAND
52	NASHUA CABINET 1218 (FOR THE ABOVE)	1	-	-WITH CASTORS	120	120	
53	SPARE PARTS KIT	1	-	-FOR 1218	600	600	DITTO
54	START-UP KIT	1	-	-CONSISTS OF 2 COPYPACKS AND 70 REAMS (35,000 SHEETS) A4 PAPER	550	550	DITTO
55	NASHUA PLAIN BOND PAPER	1	BOX	-B4 PAPER 10"x14" (254x364mm)	60	60	DITTO
56	NASHUA SPARE SELENIUM DRUM	1	-	-FOR 1218	280	280	DITTO
57	STEREOSCOPE	1	-	-WILD STP.1 -POCKET MODEL	100	100	WILD HEERBURG, CH-9435 HEERBURG SWITZERLAND
58	PENCIL SHARPENERS (36 PER BOX)	1	BOX	-STAEDTLER-NORIS -ART. 511-05-DS	18	18	J.S. STAEDTLER, INC CHATSWORTH USA
59	BLUNDELL HARLING (BLACKBOARD) (CHALKBOARD)	1	-	-CAT. N°0840-43	40	40	BLUNDELL HARLING, REGULUS WORKS LYNCH LANE WEYMOUTH, DORSET, ENGLAND, UK
60	EASEL (FOR THE ABOVE)	1	-	-CAT. N°0840-44	45	45	
61	BLACKBOARD CLEANER (CHALKBOARD ERASER)	1	-	-CAT. N°0840-54	3	3	
62	ANGLE-POISE LAMPS	4	-	-WHITE-WITH TABLE CLAMPS-220 VOLT	30	120	ANGLE-POISE LIGHTING LTD , REDDITCH, WORCESTERSHIRE, ENGLAND, U.K



ITEM N°	ITEM	QUAN- TITY	UNIT	SPECIFICATION	UNIT COST US\$	TOTAL COST US\$	SUPPLIER
63	SUUNTO FIELD COMPASSES	6	-	-CODE N°KB-14/360 -WITH CASES	20	120	SUUNTO CO., HELSINKI, FINLAND
64	FIELD TENTS (FOR 2-3 PERSONS)	10	-	-OVERLAND MODEL CAT N° 04804	380	3800	BLACK AND EDGINGTON LTD., MURRAY HOUSE,
65	SAFARI - CAMP BEDS	20	-	-MILITARY MODEL (JI/7105-99-943- 7762)	50	1000	MURRAY ROAD ST. PAUL'S GRAY, ORPINGTON
66	CAMP BED MATTRESSES	20	-	-CAT. N°22187 POLYESTER FOAM, WITH COTTON COVER -CAT N°48356	25	500	KENT, ENGLAND, UK
67	STEEL STORAGE CUPBOARD-WITH SHELVES	1	-	-39"Wx76"Hx18"D (APPROX) WITH STRONG LOCK AND KEYS	400	400	ANY OFFICE EQUIPMENT SUP- PLIER
68	ROTRING ISOGRAPH 2000 PENS COMPLETE	4	SETS	-ART N°151903 (8 PEN SETS 0.18-2.0)	70	280	ROTRING, RIEPE-WERKE, BOX 54-10-60,
69	ROTRING ISOGRAPH 200	4	BOXES	0.18mm ART. 751-018	10	40	D-2000,
70	REPLACEMENT DRAWING	6	BOXES	0.25mm ART. 751-025	10	60	HAMBURG,
71	POINTS (NIBS) ONLY	2	BOXES	0.35mm ART. 751-035	10	20	FEDERAL REPU-
72	(5 NIBS PER BOX)	1	BOX	0.5 mm ART. 751-050	10	10	BLIC OF
	"	1	BOX	0.7 mm ART. 751-070	10	10	GERMANY
	"	1	BOX	1.0 mm ART. 751-100	10	10	
	"	1	BOX	1.4 mm ART. 751-140	10	10	
	"	1	BOX	2.0 mm ART. 751-200	10	10	
77	ROTRING STENCILS	8	-	1.8 mm ART. 320-018	11	88	DITTO
78	MICRONORM UPRIGHT	6	-	2.5 mm ART. 320-025	10	60	
79	"	4	-	3.5 mm ART. 320-035	10	40	
80	"	2	-	5.0 mm ART. 320-050	10	20	
81	"	1	-	7.0 mm ART. 320-070	12	12	
82	"	1	-	10.0 mm ART. 320-100	21	21	
83	"	1	-	14.0 mm ART. 320-140	29	29	
84	"	1	-	20.0 mm ART. 320-200	37	37	
85	ROTRING STENCILS	4	-	1.8 mm ART. 321-018	11	44	
86	MICRONORM OBLIQUE	2	-	2.5 mm ART. 321-025	10	20	
87	(ITALIC)	1	-	3.5 mm ART. 321-035	10	10	
88	"	1	-	5.0 mm ART. 321-050	11	11	
89	"	1	-	7.0 mm ART. 321-070	12	12	
90	ROTRING ISOGRAPH 2000 SINGLE-ENDED HOLDERS (10 PER BOX)	2	BOXES	-ART 515-206	10	20	DITTO

ITEM N°	ITEM	QUAN- TITY	UNIT	SPECIFICATION	UNIT COST US\$	TOTAL COST US\$	SUPPLIER
91	ROTRING DRAWING INK	12	BOT-	30 ml. ART. 595-017	3	36	DITTO
92	-BLACK, TYPE "T"	15	LES	250 ml. ART. 595-117	10	150	
93	ROTRING COMBINED INK/ PENCIL ERASERS (20 PER BOX)	5	BOXES	TB-20 ART. 551-320	10	50	DITTO
94	ROTRING CLEANING UNIT	1	-	ART. 585-281	10	10	DITTO
95	ROTRING CONCENTRATE (FOR THE ABOVE - 10 SACHETS PER BOX)	5	BOXES	ART. 585-270	6	30	DITTO
96	ROTRING CIRCLE TEMPLATE	2	-	ART. 840-629	7	14	DITTO
97	ROTRING BURMESTER (FRENCH) CURVES	1	SET	ART. 830-530	10	10	DITTO
98	ROTRING BURMESTER (FRENCH) CURVES	4	-	TYPE "B" ART. 830-532	3	12	DITTO
99	ROTRING PLASTIC RULERS	10	-	20 CM. ART. 800-020	1	10	DITTO
100	"	2	-	30 CM. ART. 800-030	1	2	
101	"	2	-	40 CM. ART. 800-040	1	2	
102	"	2	-	50 CM. ART. 800-050	1	2	
103	ROTRING STENCIL	4	-	35 CM. ART. 545-635	10	40	DITTO
104	GUIDES	1	-	50 CM. ART. 545-650	20	20	
105	ROTRING RAPIDOMAT	1	-	ART. 516-194	20	20	DITTO

TOTAL \$ 28,725  
 PLUS 25% AIR-FREIGHT \$ 7,181  
 GRAND TOTAL \$ 35,906

## ANNEX III

## SOMALIA - VEHICLE ORDER

## SCHEDULE

UNIT COST US \$

LAND ROVER

8,600

- SERIES III
- (TO EXPORT SPECIFICATIONS FOR SOMALIA)

## SPECIFICATION

- MODEL 109 "STATION WAGON
- 12 SEATER
- LEFT HAND DRIVE
- 2286 c.c. (2 1/4 LITRE) PETROL ENGINE
- E.1740 7:1 LOW COMPRESSION
- 7.50 x 16 STANDARD TREAD DUAL PURPOSE TYRES
- SPEEDOMETER IN KILOMETRES WITH TRIP RECORDER  
SHOWING TENTHS OF KILOMETRE
- WITH TOWING JAW AND ATTACHMENT BRACKET
- COLOUR: LIMESTONE
- E.1012 DELETION ALLOWANCE. DELETION OF SPARE WHEEL CARRIER  
FROM REAR DOOR (-\$5)

## OPTIONAL EQUIPMENT - (TO BE SUPPLIED WITH EACH VEHICLE)

ITEM N°	UNIT COST US \$
1 E.1072 RUBBER PADS FOR CLUTCH AND BRAKE PEDALS	6
2 E.1085 FRONT LIFTING AND TOWING RINGS	15
3 E. 1116 BONNET LOCKING DEVICE (FOR DELUXE BONNET)	9
4 E.1161 FUEL FILLER LOCKING DEVICE	6
5 E.1636 WINDSCREEN WITH LAMINATED GLASS	30
6 E. 6579 COOLING SYSTEM FOR HOT CLIMATE	10
7 E.6671 DELUXE DISHED BONNET, SPARE WHEEL CARRIER AND LOCKING DEVICE	30
8 E.6673 INTERIOR AND DOOR MOUNTED MIRRORS, 'MIDIBRAK' HINGE	21
9 E.6893 STEERING DAMPER LHD	37
10 E.6914 SAFETY HARNESS, STATIC, FOR DRIVER AND OUTSIDE PASSENGER	49
11 E.1029 HEAVY DUTY LIFTING JACK	11
12 E.1145 EXPORT PACKING LID	44
13 E.1188 HEAVY DUTY REAR SPRINGS AND FRONT AND REAR SHOCK ABSORBERS	12
14 E.6538 ADDITIONAL 10 GALLON FUEL TANK WITH CHANGEOVER COCK SYSTEM	354
15 ROOF RACK	100
16 INSTRUCTION MANUAL, IN ENGLISH	N/C
TOTAL, OPTIONAL EQUIPMENT	<hr/> \$ 734

	<u>US\$</u>
- LAND ROVER (BASIC) COST	\$8,600
- PLUS OPTIONAL EQUIPMENT	<u>\$ 734</u>
-	\$9,334
- PLUS 25% SEA FREIGHT COST	<u>\$2,333</u>
- GRAND TOTAL, PER VEHICLES	\$11,667
- COST FOR 7 VEHICLE	\$81,669
- PLUS 15% OF TOTAL COST	<u>\$12,250</u>
FOR FACTORY RECOMMENDED SPARE PARTS	
GRAND TOTAL	\$93,919