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AGRICULTURAL ASSISTANCE SOMALIA

SEASONS : "GU" AND DEYR 1992 AND "GU" 1993



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EXECUTIVE SUMMARY

The report comprises of three parts. Part I report on the "gu season programme / April 92. Part II reports on the "deyr season programme September 92 and part III presents a condensed proposal for the gu season 93 which is rather a kind of workplan.

PART I

1. The objectives of ICRC's agricultural assistance are:
 - to assist on a priority basis the riverine farmers in order to encourage them to remain self sufficient.
 - to extend ICRC's agricultural assistance to agro-pastoralists and encourage them to cultivate their subsistence crops.

2. The necessary actions to be carried out in order to achieve the objectives are:-
 - to conduct regular agricultural production and nutritional surveillance in order to identify basic needs in general.
Yes, but
between January 1991 and April 1992 ICRC could only partially visit eight regions out of the 12 regions which form Somalia. Factional fighting and inter-and-intra clashes restricted the freedom of movement. The validity of data gathered on numbers of beneficiaries kept changing with each movement of the factional frontlines.
 - to liaise with other organisations involved in agricultural assistance in order to avoid duplication :
EASY.
There was only one organisation : Accord.
 - to extend ICRC's agri-aid to areas inaccessible to other relief agencies,
IMPOSSIBLE.
In March 1992, Accord had to pull out of Brava. ICRC could not take over, security was too bad.
 - to forward information to organisation showing a keen interest to assist Somalia in the field of agriculture.
FRUSTRATING. briefings have been numerous, but brought very meagre results.

3. With regards to the limited seed stocks available on the african seed market ICRC partially reserved its seed requirement for Somalia in June 1991. In November, additional requirements (200 MT) following surveys conducted in accessible areas of Somalia could not be mobilized in Kenya. All attempts to purchase seeds suitable for the Somali environment, in third countries, failed too.

Early 1992, several NGOs and UN agencies asked ICRC to help them out with some seeds for Sudan. News had travelled that ICRC had bought most of what was available.
4. The seed supplied by Kenya Seed Company and Pop Vriend / Holland were of good quality. Delivery schedules have been respected too. The beneficiaries were much excited to find that the germination rate of the imported seed was very high when compared to their native on farm-seed.
5. In February, all seed to be shipped or airlifted to coastal and hinterland areas of Somalia have been positioned in Mombasa.
6. Mogadishu Port has always been an important military or political asset to the faction / clan who controls the port. Blocking its access is "the" mean of pressure used by clans, political factions and warlords to defend or negotiate their cause. With the rapid deterioration of the nutritional situation in Somalia, ICRC had to resort to "beach landings" and airlifts. That was the only rational way to provide regular assistance to coastal regions and to the hinterlands of Somalia.
7. The agricultural assistance has been transported to ICRC's numerous entry points to Somalia as follows : 28% has been airlifted, 37% has been "beach landed" and 35% has been trucked to entry points located on the Kenyan border.
8. The 60 MT of seed positioned in El-Wak and Mandera (Kenya) could not be channelled into Gedo and Bay Region due to General Aided's offensive against SNF (Marehan Clan) which was launched on April 24th.
9. With last November's outburst in Mogadishu of a merciless war between General Aidid (USC) and President Mahdi hundreds of thousands of persons fled the city to seek refuge in their own rural clan basis.

In Kisimayo (Dec '91) similar clashes within SPM, displaced thousands of Ogadenis residing in and around Kisimayo into rural hinterlands lying East and North of Kisimayo.

10. In the aftermath political divisions have been replaced by clan based divisions and, factional frontlines by geographical clan boundaries. Accordingly, assistance had to be channelled directly to each clan area, making inland transport more complicated.
11. The main criteria used of the repartition of the agricultural assistance among the regions were :
 - the regional population of agro-pastoralists and farmers.
 - the high or low probability of access to the regions at the time when distribution will take place : That implied a good follow up on the on going military operations.
12. Within the regions or within a clan area, seed distribution committees have been set up in major rural settlements. The members of each of these committees consisted of representatives of the local administration and elders of the surrounding villages.

Their main responsibilities were:-

 - to provide with a map / list of the villages falling under their jurisdiction, along with a list of the population. This exercise was done jointly with the ICRC agronomists. Figures on the population were often inflated, but with a lot of patience and build up of common trust the figures could be brought to a realistic level.
 - to take over and store the delivered seeds and distribute them to the individual villages.
 - to record the name of the farmers, the name of the village and the quantity of seed he received. To our surprise, several committees had maintained clear records. However many of them got lost in the whirl of fighting or with rapid collapses and resurgences of local administrations.
13. The agricultural assistance was combined with food-aid in order to support the emaciated farmer's ability to work his fields.
14. The distribution system was basically similar to the one of September 1991. One significant difference was the separation of the seed programme from the food distribution. There were several advantages to this approach.
 - The tension normally associated with food distribution was avoided. There was no looting of seeds or other security problems associated with the food distribution.

- A more accurate targeting could often be done up to sub-village level since the quantities involved are small (compared to food).
15. The seed distribution was launched on the 5th of March and ended on 3rd of May.
 16. ICRC distributed 265 MT of maize seed, 88 MT of sorghum seed, 20 MT of cowpea seed and 88,750 kits of vegetable seed. The 60 MT of seed which could not be channelled to Gedo and Bay region due to on-going military operations have been stored for next season.
 17. The cereal and cowpea seed have been distributed to 45,000 families and approximately 75,000 families have been provided with vegetable seed.
 18. The production expected from the 373 MT of cereal and cowpea seed is : 10,000 - 12,000 MT. The investment of USD 500,000 in seed and transport will generate USD 7.5 million of food assistance which theoretically does not have to be imported.
 19. For all surveys and discussions with seed distribution committees, ICRC hired local agronomists on a temporary basis. Security permitting, they accompanied the seed convoys to main distribution centres and followed up on the distributions committee's seed despatch to surrounding villages.
 20. Between June and August, each regional Somali agronomist backed up by one of two ICRC agronomist visited a maximum number of rural settlements in order to follow up on:-
 - the equity of the seed distribution undertaken by the distribution committees at village level.
 - the farmers' reactions on the seed varieties provided by ICRC.
 - regional estimates of crop production and food deficits.
 - quantification of seed allotments to be provided to regional rural settlements in September 1992.
 21. The findings of the surveys for each region are presented under point 8.2 to 8.8 of Part I.
 22. The farmers feed back on the imported varieties showed that the imported maize and sorghum seeds did not have the required yield stability, water and heat stress tolerance of the native varieties. The probability of crop failure is as high a 30% in the "gu" season and not far from 50% in the "deyr" season.

23. It is highly commendable to reduce as rapidly as possible the distribution of large amount of exotic seed over large areas and through hundreds of thousands of beneficiaries. Sorghum varieties are known to cross very easily with each other. Over the seasons, this crossings will reduce the adaptability and yield potential of the native varieties at a national level.
24. It is proposed to buy as far as possible, but within adequate limits small surpluses of food grains on the local markets as a seed. To complement local purchase and small scale local seed production with a large scale production of native seed in a safe environment. Todate, two Kenyan seed suppliers would be ready to cultivate 160 ha of sorghum and maize of Somali origin.

ICRC makes a strong lobbying among donors and FAO to promote that idea.
25. The yields of "gu" crops have been substantially affected by scarce and irregular rains. Since 1989, the gu rains have never been so poor. (See Fig 1 Page 23).
26. ICRC estimates the production of the local crop at 75,000 MT only.
27. The experience of this year seed programme (gu season 92) showed that seed distribution was an indispensable part of ICRC's relief work in Somalia. Farmers in all target areas have realized that relief food will never be enough to satisfy all the needy people.
28. Accordingly farmers feel that queuing up for a seed distribution is a better insurance against hunger than to queue for food.

PART II

1. Part II reports on the deyr season programme / September 1992.
2. The objectives and the ensuing necessary actions are similar to the ones of the gu season 92. Ref part I, point No. 1 and 2 of the executive summary.
3. In August 92, the international community finally turned their full attention towards the hunger stricken Somalia. From then onwards the large influx of NGO's and international aid-agencies highly raised the hopes of survival of the Somalis. In the field of agri-assistance, the agencies response was high too, but the time left to get organised, buy inputs and distribute them in time was extremely short.

4. The liaison with the NGOs involved in agri-aid was easy. Areas of assistance got rapidly demarcated and in general their achievements corresponded to their plans. The liaison with the international agencies was poor and their achievements almost insignificant when compared to their initial plans. ICRC had to extend some of its assistance to areas for which the concerned relief agencies could not mobilize the necessary aid to cover the most basic needs.
5. The fact that all in-coming relief agencies visited ICRC for an introductory briefing on agricultural assistance in Somalia, helped a lot to have today an agri-assistance in Somalia whose components are very homogenous.
6. Despite of the fact that the seed stocks available on the export market of the Horn of Africa remained very limited. ICRC thanks to its own flexibility and its credibility towards the donors, once more managed to mobilize 90% of its requirements in seed.
7. The seed quality supplied by the Ugandan, Kenyan and Tanzanian seed suppliers was of good quality. Delivery schedules have been respected, except for 100 MT maize seed which could not be exported out of Tanzania. ICRC's attempt to ask the government for an exceptional lift of the export ban as a humanitarian gesture failed.
8. The seed and tools to be transported to coastal or hinterland regions of Somalia have been positioned in Mombasa in August. Mombasa is the logistical base of ICRC's fleet of relief vessels and of the international communities fleet of planes.
9. The seed / tools have been transported to main entry to Somalia as follows: 34% by Ship, 53% by air and 13% by truck to entry points located on the Kenyan border.

Fishing hooks and fishing twines have been distributed to 10,000 Bantu families in Middle Jubba. This form of assistance is the best way to alleviate the sufferings of these outcast farming communities which rarely benefit from food-aid and whose crops are regularly looted.

ICRC distributed 98 MT of Maize, 295 MT of Sorghum, 375 MT Cowpea and 30 MT of millet Seeds, 50,000 hoes and 91,500 kits of vegetable seed.
10. The seed distribution campaign was launched on the 8th of September, 1992.
11. The main criteria used for the quantitative repartition of the assistance to the region were :

- The numbers of Agro Pastoralists and farmers residing in each region.
 - The nutritional situation prevailing in the region or parts of the regions i.e the physical state of the rural population.
 - The geographical repartition of the food and agricultural assistance provided by different relief agencies.
 - The availability of the agencies to fulfil or not fulfil their distributions.
12. The ICRC agronomists had to take the unpleasant but necessary decision :
- to increase the seed-aid in the less famished areas and,
 - to decrease the seed-aid in areas where the farmers were to weak to cultivate the surface which would have allowed them to produce enough grain to feed their family from one harvest to the other.
13. The massive expansion of ICRC's kitchen programme to the rural areas some 4 - 6 weeks before the beginning of the sowing was the best way if not the only way to support the farmer's limitless will to command his emaciated body and thin hands to put some seed in the ground.
14. The kitchens are the mothers of many farmers and the godmothers of each plant that the farmer had the energy to put in the ground.
15. Within the regions, or within a clan area, seed distribution committees have been set up in major rural settlements. The responsibilities of the committees are described under part I, point 12, of the executive summary.
16. The cereal and cowpea seeds have been distributed to approximately 85,000 families. About 90,000 families received vegetable seeds. These figures are however subjected to further sharing among families growing either cereals or vegetables.
17. The production expected from the 800 MT of cereal and cowpea seed will depend on the deyr rains but can be tentatively estimated at 23,000 MT.
18. The investment of USD 1.1 Million in seed and in seed transport will generate USD 16.5 millions worth of food-aid which theoretically has not to be imported.

19. Last but not least ICRC thanks all the ICRC and Somali colleagues and staff directly or indirectly involved in the seed distribution campaign which helped to raise the hopes of survival of many many farmers.
20. A special thank goes also to our local teams of agronomists who not only involved a lot of energy and goodwill in the programme but when compared to last season made enormous progress in their way to plan, organise and implement the distribution of the seed.

PART III

1. Part III, comprises a condensed proposal of the "gu" programme 93 and some working guidelines.
2. The objectives and ensuing necessary actions are similar to the ones of the gu and deyr season 92. Ref. Part I, point 1 & 2 of the executive summary.
3. The dimensions of the agri-assistance programme presented in the budget 93 for the north west of Somalia are :

215 MT of cereal seed, 0.22 MT of vegetable seed and 39,000 pieces of agri-tools.
- 3.1 The planning and implementation of the programme are under the responsibility of the agronomist based in Nairobi.
- 3.2 In November, additional information will be gathered on the following aspects.
 - revise ICRC's list of NGO's, visit them and jointly demarcate respective areas of assistance.
 - reassess the needs in vegetable seed, since Save the Children Fund retrieved its agri-assistance.
 - assess possible regional differences in the lasting of on-farm and commercial food reserves.
 - quantity differences in food deficits among resident and returnee farmers.
 - given the excellent sorghum and maize harvests, re-check if the dimensions of the agri-assistants, gu 1993 needs to be re-adjusted.

assess possibilities to buy 50% of the seed-aid on the local cereal markets. The objective is to provide the farmers with native seed which is best adapted to the Somali environment.

3.3 Purchase of inputs and delivery schedules are as follows:-

- 39,000 agri-tools; and 220 kg of vegetable seed have been ordered. ETA Djibouti, Dec. 92.
- 100 MT of sorghum and 15 MT of maize seeds will be purchased in the regions of Adwal, North-West and Togdher. Deadline for purchases end of November. About 50 - 100 MT of Sorghum seed (depending of re-assessment survey on needs) will be purchased in Kenya. Shipping to Djibouti or Berbera latest by the 15th of December 1992.
- Sanaag region : 20 mt of sorghum seed will be purchased in the region. Storage and distribution will be done by Partner Aid International (Swiss NGO).
- Sool region : 20 - 25 MT of sorghum seed will be purchased and stored in Garoe. The seed will be channelled to Sool ex-Garoe.
- Order of additional requirements of vegetable seed, by 30th November latest.

3.4 TIMETABLE

- deadline for last orders of inputs : 30th of November
- Deadline for positioning the seed and tools in regional ICRC or SRCS Warehouses : 15th January 1993.
- distribution : Launch on the 15th January : Complete by 20th February 1993.

4 The dimensions of the agri-assistance programme presented in the budget 93 for Somalia are:-

700 MT of cereal and 200 MT of cowpea seed, 4 MT of vegetable seed, 100,000 hoes and 750 MT of consumption cowpea as food and seed assistance.

4.1 Considering the volatility of the Somali situation, the famine stricken regions of Gedo, Bay and Bakol, the fragile nutritional situation prevailing in most of the other regions, the relief needs are, in the future, far from being covered. The dimensions of ICRC's assistance will therefore have to be maintained at the present level at least until December 1992. In the aftermath, ICRC's efforts will be adapted to the effectiveness of the already present and in-coming aid-agencies.

- 4.2 The same approach applies for the agricultural assistance. The overall needs in terms of agricultural assistance are enormous. The target population with regard to freedom of movement (mine hazards increase) and volatile security is 250,000 families (min) to 500,000 families (max). Accordingly the seed requirements lie between 2,500 MT (min) and 5,000 (max). About 1,000 MT will be required to re-activate the cereal production in the Bay region only.
- 4.3 The general planning and implementation are under the responsibility of the two ICRC Agronomist.
- 4.4 The collaboration among the aid-agencies and, the geographical demarcation of the assistance are, still date rather chaotic. With regard to the planning of the agri-assistance - gu season / April 1993, all agencies should, latest by mid December, be able to confirm in which area(s) they will work and precisely define the content and dimensions of their assistance.
- 4.5 In order to substantially improve the repartition of the agri-assistance in Somalia, the coordination between the supportive organisations has to be drastically improved.
- 4.6 The NGOs planning to buy most of their seeds locally or to produce some seed with Somali farmers should concentrate their efforts in areas where imported seed are least adapted to the Somali environment (security permitting).
- 4.7 NGOs which will provide assistance for the emergency and rehabilitation phases or even for a third phase of development, should not concentrate all their efforts around Kisimayo and Mogadishu, but divide up their presence in the different clan regions.
- 4.8 **PRODUCTION OF NATIVE (SOMALI) MAIZE AND SORGHUM SEED IN A SAFE ENVIRONMENT**

The technical aspects related to this proposal are :

- to provide the Somali farmers with native seeds best adapted to Somali environment in order to progressively reduce the distribution of large amounts of imported seed to hundreds of thousands beneficiaries throughout Somalia.

Risks of crop failure with imported varieties are medium to high and the farmer's limited working energy should not be wasted. Each seasonal input of imported seed will result in widespread crossings, which in turn will negatively affect the adaptability and yield potentials of the native varieties.

- to complement small scale seed purchases and production programmes undertaken in Somalia.
 - to produce a limited stock of basic seed (available with ICRISAT), foundation seeds and seed for crop production. These stocks could on one hand allow to restore optimal production levels in the safest areas of Somali. e.g North-East and, on the other hand allow to immediately boost national production, when a semblance of general peace will prevail.
- 4.9 Todate, FAO has been sensibilized to the idea. The planning, supervision and implementation of such a seed emergency production programme would be a tailor made project for FAO.
- 4.10 ICRC strongly lobbies on the idea. EC and USAID who are major donors to Somalia and north-east Kenya are very responsive to the idea / proposal. ICRC intends to multiply 350 kg of native sorghum and 500 kg of native maize seed with one of our kenyan seed supplier. This exercise, shall provide the first hard facts in order to better sell the feasibility of a large scale production of somali varieties in Kenya, to donors and to a potential implementing agency.

The purpose of this report is two fold

1. To report on ICRC's seasonal agricultural programmes of 1992.
2. To tentatively define the dimensions of the needs for the next cropping season (April 93).

The report will also consider experiences accumulated from past seed distribution campaigns. Finally, options concerning the sharing of the assistance between the numerous organisations involved in agricultural assistance will also be looked into.

Part I of the paper reports on the "gu" season programmes / 1992.

Part II of the paper reports on the dehr season programme / 1992.

Part III presents a condensed proposal of the agri-programme for the "gu season" programme / April 1993.

PART I

A. **AGRICULTURAL ASSISTANCE - GU SEASON - "MARCH - JULY 1992"**

This part of the report highlights the concept of the programme, planning and implementations activities.

1 PLANNING RATIONALES AND REALITIES

The planning of the first "gu" season programme/March '92 which followed the "dehr" season programme/August '91, referred to the following objectives and necessary actions.

1.1 OBJECTIVES

- to further assist displaced and resident farmers with adequate agricultural inputs.
- to assist on a priority basis the riverine farmers and further encourage them to cultivate food crops to remain self-sufficient and progressively regain their status of surplus producers.

- to extend ICRC's agricultural assistance to agro-pastoralists and encourage them to cultivate their subsistence crops.

1.2 NECESSARY ACTIONS

1. To conduct regular agricultural production and nutritional surveillance in order to identify basic needs in general, and areas in need of emergency assistance in particular.

BUT.

Over the past 14 months, factional fighting, inter-and-intra clannic clashes and increasing banditry greatly restricted the movements of the Somali and Swiss agronomists. Out of the 12 regions which form Somalia, only 8 regions could be visited extensively. With each movement of the factional frontline thousands of people got displaced. Consequently, data gathered in a region on numbers of beneficiaries and on quantitative and qualitative needs were often outdated by the time the implementation of the regional assistance took place.

In September 1991, given the low probability of a ceasing of interfactional clashes, the agronomists estimated that a maximum of 100,000 families living in relatively stable areas could be provided with seeds by March '92. In September 1991 a provision for 500 mt of cereals seeds, 200 mt of cowpea seed, 3 mt of vegetable seed and 100,000 hoes was included in the 1992 budget.

2. To liaise with other organisation involved in agricultural assistance in order to avoid duplication.

EASY.

The only organisation involved in agri-assistance was Accord. They cover Brava. ICRC topped up their maize seed quota (5mt) for Brava, with an additional 35 mt.

3. To extend ICRC's agri-assistance to areas inaccessible to other relief agencies for security reasons.

IMPOSSIBLE.

In March '92 Accord pulled out of Brava. Security had deteriorated to such an extent that ICRC could not take over from Accord.

4. To forward information to organisation showing a keen interest to assist Somalia in the field of agriculture

FRUSTRATING.

- the time spent to regularly brief several organisations (FAO, UN, CARE, PARC, CRS) and to visit with some of them (CRS, Nisan) certain parts of Somalia brought very meagre results. Fruitful collaboration was only achieved with Accord.
5. To conclude, the fluid political, military and clannic situation prevailing during the seed distribution campaign led to several quantitative and qualitative readjustments. Flexibility and much extra-polation based on common sense were and will remain the leitmotif of the planning and implementation of the agricultural assistance in Somalia.

2. SEED PURCHASE

1. In June 1991, when seed delivery schedules for the "dehr" season agricultural programme were discussed with Kenya Seed Company (KSC), the production manager expected substantial losses in seed production, due to punctual drought conditions and poor rains.
2. Within the week, the agronomist decided to reserve 300 MT of cereal seed and 200 mt of cowpea seeds as a provision for the seed programme (Somalia and South Sudan) scheduled for April '92.
3. In November, KSC informed us that only 50 mt of good quality cowpea seed had been collected from their contract growers. In the same line, the request for an additional requirement of 200 mt of cereal seed, following surveys conducted in Somalia (Nov 91) could not be placed with KSC.

4. Immediate inquiries with seed suppliers in Malawi, Uganda, Zimbabwe were disappointing too. Either only small quantities were available, or when available, the varieties were not suitable for Somalia (hybrids, or varieties for which the supplier was not ready to commit himself about their suitability for Somalia). While correspondence was exchanged, the clock marking the agricultural seasons kept on ticking. In a last desperate resort, we tried to buy some good consumption cowpea in replacement of the missing cowpea seeds.

But alas, consumption cowpeas too were an extremely rare item in the whole Horn of Africa. When they were finally found, a timely delivery for distribution was no more feasible. These cowpea (150 MT) are stored for the dehr season, September, 1992.

5. Between January and April '92 several NGO's and UN agencies asked ICRC if we could provide them with some seeds for their operation in South Sudan. The news had gone around that ICRC had bought most of what was available on the export market.

3. QUALITY OF PURCHASED AGRI-INPUTS, PACKING-DELIVERY SCHEDULES

1. The seeds supplied by KSC/Nairobi were of good quality. The material used for the overall packing (50kg bags) and the sub-packing in 2 or 10 kg bags supported very well the extensive handling and transporting over long distances and on rough roads.
2. The packing of the vegetables seeds in kits of 4 pkts, greatly facilitated the distribution. However, the carton boxes used by Pop Vriend VB/Holland were too weak. Too many boxes were already damaged on delivery at Nairobi airport.
3. In general, the seed suppliers kept to the delivery schedules. The best feedback of the programme is the overall satisfaction of the farmers on the germination rate of our seeds. The local villagers who were not too willing to take the word of "outsiders" about providing high quality seed, did their own germination test.

They were excited to find that germination indeed approached 90%, which is far more than their native seed.

4. TRANSPORT

1. In February, the seeds to be channelled into coastal regions of Somalia, through main ports and "beach landings" (*) were positioned in Mombasa, the logistical base of ICRC's fleet of "food assistance vessels".

(*) "Beach Landing" : coastal regions with small ports or no ports at all are provided with food and non food relief with barges and tugs which shuttle between the high capacity vessel anchored at sea and the small ports.

2. With the closure of Mogadishu port, Mogadishu could no more be used as main entry point to channel the seed supplies into the regions of Hiran and Lower Shebelle.

The strategic function of the port as the gateway into the country meant that the party to the conflict not in control of the port did its most to block its access. The seeds for Lower Shebelle, have been supplied through Merca and Gesira by "beach landings". The area of Brava had to be left out, deterioration in the security, made the area inaccessible both by ship and by road (ex-Kisimayo or Merca).

3. The seed for Hiran region were finally airlifted from Mombasa to Beletweyn with ICRC's Hercules.
4. The seed for the districts of Kisimayo, Gelib and Jamama (western area of middle Jubba region) were supplied through Kisimayo port.
5. The coastal area of Lower Jubba region, was supplied through beach landings in Ras-Camboni, Khuda and Burdubo.
6. The seed for the regions of Lower Jubba (inland part) Middle Jubba (eastern part) and Gedo have been positioned at ICRC's 4 main entry points located near the Kenyan-Somalia border.
7. The vegetable seed (3mt) were lifted by ICRC's small aircrafts to regional entry points or main distribution centres.

8. From the main coastal and border entry points, the seed were transported by Somali truckers to their final destinations. Out of all the convoys sent, only one truck (10mt) was diverted from its final destination. This minimal diversion can be related to two main decisions:

- Seed and food convoys were sent off separately.
- The public, especially at main points of entry were informed that the seeds are dressed and if they eat them, they might become impotent. This statement is an obvious lie, but the impact was good, and looters kept away from seed convoys.

5. DISTRIBUTION - HIGHLIGHTS

1. With last November's outburst in Mogadishu of a merciless war between General Aidid (USC) and President Mahdi, hundreds of thousand of persons fled the city to seek refuge in their own rural clan bases. In Kisimayo (Dec '91) similar clashes within SPM displaced thousands of Ogadenis residing in and around Kisimayo into the rural hinterlands lying east and north of Kisimayo.
2. In the aftermath political divisions have been replaced by clan based divisions and, factional frontlines by geographical clan boundaries. Accordingly, assistance had to be channelled directly to each clan area, making transport logistics more complicated.
3. The main criteria used for the repartition of ICRC's limited seeds stocks among the regions in need of assistance were:
 - The regional population of agro-pastoralists and farmers. The farmers mostly belong to the Bantu ethnical group. The Bantu people are considered as non-Somalis. Accordingly they often get an inappropriate share of the food relief. Seed-aid can be provided to the Bantu people without many problems but their standing crop are unfortunately a major source of food for uncontrolled armed groups.

- The high or low probability of access to the regions at the time when distribution would take place. That implied a good follow-up on on-going military operations, especially in the regions of middle and lower Jubba.
4. Within the regions or within a clan area, seed distribution committees have been set up in major rural settlements. The members of each of these committees consisted of members of the local administration and elders of the surrounding villages.
 5. The committee's responsibilities are:
 - To provide ICRC with a map/list of the villages falling under their jurisdiction, along with a list of the population and their estimate of seed requirements.

This exercise was done jointly with the committee and the ICRC's agronomist's. Information on the numbers of empty or inhabited villages was often reliable. A fascinating aspect was their skill to map out the position of villages located around a main township, including distances in km.

Figures on population were often inflated, but with a lot of patience and a good build up of common trust, the figures could be brought to a realistic level. One should not forget that with the collapse of the government services, the loss and destruction of existing records and the perpetual movement of groups of population, an estimation of the population is a difficult task. So is any attempt to define the percentage of the agro-pastoralists among a population which is essentially pastoralist.

- To take over and store ICRC's seed deliveries.
- To allocate seed quantities to individual villages.
- To record the name of the farmer, the name of the village and the quantity of seed he has been given.

To our surprise, during first field visits, several committees have maintained clear records. However, many of these records got lost in the whirl of fighting or with rapid collapses and resurgences of local administrations.

6. The seed and tool distribution campaign was launched on the 5th of March in Middle Jubba.
7. Agricultural assistance was combined with food aid in order to alleviate the farmers' and agropastoralists' nutritional situation, regenerate their energy to work in the fields and avoid consumption of seed as food.
8. The distribution system was basically similar to the one of September 1991. One significant difference was the separation of the seed programme from the food distribution. There were several advantages to this approach.
 - The tension normally associated with food distribution was avoided. There was no looting or other security problems associated with the food distribution.
 - A more accurate targeting could often be done up to sub-village level since the quantities involved are small (compared to food).
9. It is clear that the described distribution system, was affected in each area / region by many minor or major problems. Somalia is known for its solidarity, but solidarity exists only within the smallest tribal unit (sub-sub-clan). The more homogenous a population is, the easier it is for a committee to find distribution modalities acceptable to all groups.
10. The agronomists spent countless hours in discussing distribution systems, security escorts, truck hiring tactics in order to neither favour or disfavour people of different sub-clan affiliations.
11. What shall also be mentioned is that the stress to which ICRC relief staff are exposed day in and day out also applies in different ways to members of Somali distribution committees. As far as the pressure is concerned, it is certainly higher on Somali staff, by the sheer fact that they belong and are tied to clan-lines.
12. The seed campaign ended in Merca with the distribution of the last 30 mt of maize seed, on the 3rd May 1992.

13. The regions in which the seed programme is expected to have the best impact are Hiran, middle Shebelle, lower Shebelle and lower Jubba (eastern part). These regions, except for lower Shebelle, and middle Shebelle faced less severe nutritional problem than other northern regions, but above all they enjoyed a relative stability during the sowing time.
14. The regions of middle Jubba and Bakol were prone to military operation either shortly before or shortly after the seed distribution had taken place.
15. In Gedo and Bay regions, seeds could not be distributed due to General Aidid's offensive against SNF (Marehan clan) which was launched with the fall of Baidoa on April 24th.
16. To conclude, the key for a smooth implementation of relief operations in Somalia is:
 - To build up confidence and understanding among the interlocutors (elders, local administration, police etc). One day trips in the interior of Somalia or meeting of a few hours with local town authorities, to collect information or set up a delivery and distribution system are not commendable. Human relations can not spark off during such short visits. The agronomist considers that one day's visit with a stay over night (people are very hospitable they also love to "chaat" and chat in the evenings) has much more impact than several short visits of a few hours.
 - To take an exact census of all various tribal families, clans and sub-clans found within the working area, and to respect their numeric importance are very important tasks. The fact of ignoring one group or underestimating another one will lead irremediably to distrust, tensions and possible use and abuse of force.

6. **FACTS AND FIGURES**

6.1 **DISTRIBUTION TABLE**

| REGIONS | MAIZE SEED MT | SORGHUM SEED MT | COWPEA SEED MT | VEGETABLE SEED (*) KITS |
|-----------------|---------------|-----------------|----------------|-------------------------|
| LOWER JUBBA | 70 | 38 | 20 | 10,350 |
| MIDDLE JUBBA | 60 | - | - | 24,000 |
| GEDO (**) | - | - | - | - |
| BAY (***) | - | - | - | - |
| BAKOOL | - | 4 | - | - |
| HIRAN | 68 | 48 | - | 16,650 |
| MIDDLE SHEBELLE | 39 | - | - | 13,500 |
| LOWER SHEBELLE | 30 | - | - | 22,750 (****) |
| TOTAL | 296 | 88 | 20 | 86,750 |

(*) : Vegetable Seeds, each region received 33% of 3 different kits.
Each kit contains 4 different vegetable packets

- Kit 1. Watermelon, pumpkin, tomato and hot pepper
- Kit 2. Watermelon, pumpkin, tomato and green pepper
- Kit 3. Watermelon, pumpkin, tomato and onion

(**) - (***) : Seed distribution could not take place due to military operations

(****) : Stock - September 1992

e.2. STOCK POSITION

| PRODUCT | INITIAL STOCKS | AMOUNT USED MT | BALANCE MT | REMARKS |
|-----------------------|----------------|-------------------|---------------|---|
| A. MAIZE | | | | |
| SO 2046 | 250 MT | 248 | 2 | - |
| SDK 3195 | 50 MT | 17 | 33 | 20 MT POSITIONED IN IN MANDERA (REF **/****) |
| B. SORGHUM | | | | |
| SO 2044 | 118 MT | 88 | 28 | 20 MT POSITIONED IN MANDERA (REF **/****) |
| C. COWPEA | | | | |
| SO 2045 | 68 MT | 20 | 48 | 2 MT LOSS, RAIN 20 MT POSITIONED IN MANDERA (REF **/****) |
| TOTAL A/B/C | | | | |
| VEGETABLE SEED | | | | |
| SO 2055 | 78,000 PKTS | 64,500 PKTS | 13,500 PKTS | 13,500 PKTS POSITIONED IN MANDERA (REF **/****) |

** / **** : Ref Page 10

6.3 COMMENTS

1. Maize seeds were above all distributed to riverine and coastal areas.
Main groups of beneficiaries : Bantu community.
2. Sorghum seeds were above all distributed to northern regions (lower seasonal rainfall).
Main group of beneficiaries : agro-pastoralists.
3. Vegetable seeds, the biggest bulk was allocated to riverine areas.
Main group of beneficiaries : Bantu community
4. The cereal and cowpea seed have been distributed to about 40,000 - 50,000 families and approximately 80,000 - 90,000 families have been provided with vegetable seeds. These figures are subjected to further sharing within families growing either cereals or only vegetables.
5. The production expected from 373 mt of cereal and cowpea seed will be around 10,000 - 12,000 mt.
6. The investment of USD 500,000 in seed and seed transport will generate USD 7.5 million of food assistance which theoretically does not have to be imported

7 "EXTENSION ACTIVITIES"

1. For all surveys and discussions with seed distribution committees, ICRC hired local agronomists on a temporary basis.
2. The local agronomists functioned as translators and guides in the field. In most cases they also accompanied the ICRC seed convoy to the main regional distribution centres. Whenever possible they also followed up on the seed distribution upto the village level.
3. Their most important duty, was to inform and re-inform the elders and villagers
 - * that due to shortage of Katumani seed (open-pollinated), on the seed market, ICRC had to buy some Pwani maize seed (hybrid) for distribution.

* that hybrid seed and open-pollinated seeds should be sown in different fields, the yield from the Pwani field will be used for food only whereas the Katumani fields can be used for food and seed.

4. In Hiran, middle Shebelle and Kisimayo, Jamama, Gelib (Power Jubba) the explanations could be kept short, as the farmers said that they knew that the hybrid seeds, could be used only once. They had learnt it with the watermelon (hybrid seed) distributed by the Italians.
5. In middle Jubba (Afmadu district) and Gedo, the elders and farmers were rather suspicious, thinking that this story of one time use maize seed was a cover up for low quality seed. The issue was resolved by asking the following set of questions to the suspicious farmers.

Extension team (Ex Te) : What are the advantages of the donkey?

Farmers (F) reply : The donkey supports hot weather, it tolerates thirst, and survives on poor and thorny fodder but carries less load than the camel.

Ex Te : What are the advantages of the horse?

F : The horse carries more load than a donkey, but is less tolerant to heat and poor fodder

Ex Te : What happens if you cross a horse and a donkey?

F : We get a mule.

Ex Te : The mule has a major problem!!! what is it?

F : Everybody laughs..... the mule is sterile

Ex Te : Well, it is exactly the same for the Pwani hybrid seed, they too cannot have any ascendance.

Ex Te : Why do people cross horses with donkeys?

F : To get an animal which has the advantages of both the horse and the donkey.

Ex Te : Excellent answer, again it is the same for hybrid maize. The seed scientists did the same with two varieties of maize to combine their respective advantages.

These talks, got rid of the farmers doubts on ICRC trying to supply them with low quality seeds.

8. IMPACT MONITORING AND FOOD SURVEILLANCE

8.1 INTRODUCTION

Between June and August, each regional Somali agronomist backed up by the ICRC agronomist visited, security permitting, a maximum number of rural settlements, in order to follow up on:

- the equity of the seed distribution undertaken by the distribution committees at village level.
- on the farmers' reactions on seed varieties provided by ICRC
- regional estimates of crop production and food deficits
- quantification of seed allotments to be provided to regional rural settlements in September 1992.

8.2 GEDO, BAY AND BAKOL

Agri-assistance for the gu season could not be provided to these three regions due to on-going military operations. General Aided's campaign to overthrow the remainder of Barre's army and to capture the whole area once more lead to bloody violence, enormous destruction of homes and shelters, and displacement of thousands of people within the region and to the refugee camps in Kenya. Almost all food and seed reserves, and hundreds of domestic animals have been taken by the combatants and the uncontrolled armed groups trailing the path of the combatants.

While the population of the regions of Gedo and Bakol primarily consists of pastoralists, Bay is essentially agro-pastoralist. Sorghum production has always been the economic backbone of Bay region.

The military operations which took place in April 92 totally disrupted the sowing of the crops. the most appalling consequences were:-

- compared to pre-war times only 2-5% of the cultivable area could be sown which also represent less than 25% of the area cropped in September 1991.
- From no crops at all to very late sowing. Farmers in Awal Badar said "MOST OF US SOW OUR FEW SEED DURING THE NIGHT WHEN THE MOON WAS BRIGHT. WE WERE TOO SCARED TO GO TO OUR FIELDS DURING DAYTIME.
- By mid - June, Bay and Bakol were faced with a rapidly increasing mass starvation. ICRC immediately started to airlift each month 1,000 - 1,500 mt of food.
- ICRC's urban and rural kitchen network could unfortunately not contain the ever expanding starvation.
- By August the horrible death toll finally shook the international communities into action.
- Looting, distress, selling and consumption totally depleted the small livestock.

Food assistance to these three regions until the harvest of the next crop (Dec 92) are estimated at 7,000 MT per month.

The farmers working energy and their subsequent area of cultivation will primarily depend on the regularity of the distribution of dry rations and cooked meals in rural kitchens.

8.3 LOWER JUBBA AND MIDDLE JUBBA

The numerous factional and clannic clashes in the areas of Gelib, Doble, Afmadu and to some extent in Badhade, largely disrupted food assistance to rural villages.

The most affected people are once more the Bantu population who search food and shelter in Kisimayo and other major rural settlements.

The most regular assistance which provided support to the rural areas were the seed and above all the veterinary assistance.

Food assistance to these two regions until the harvest of the next crop (Dec. 92) are estimated at 3,000 MT per month.

8.4 LOWER SHEBELLE

During the four months of war which put ablaze the Metropolis of Mogadishu the rural areas of Lower Shebelle extensively supported with grains their urban kinsfolk. Despite of heavy sacrifices, the rural population, of Afgoi, Korioley, Audingle and Merca managed to crop in maize, an area equivalent to 115% of pre-war times.

The regular and generous "gu" rains provided for an excellent maize harvest.

Today, the rural areas of Lower Shebelle continue to support their kinsfolk in major centres such as Mogadishu South, Merca and Brava. Their help also extends to the thousands of hunger stricken displaced from Bay Region.

As a result the produced cereal surpluses are not expected to last beyond November, 1992.

Distribution of dry rations and cooked food in major towns remains essential to keep the present fair nutritional status at level. The food assistance will also encourage the rural resident population to further increase their production of grains and at the same time also provide job opportunities to some displaced.

Minimal food input per month until December 1992 : 800 MT (Mogadishu town excluded).

8.5 MIDDLE SHEBELLE

To a greater extent, the general situation in Middle Shebelle is similar to the one of Lower Shebelle except for the fact that the cereal producing areas,

expected to support about the same numbers of urban kinsfolk (as in Lower Shebelle) represents only 30% of acreage grown in cereals in Lower Shebelle.

Most of the maize is produced in the riverine areas. The area cultivated in maize when compared to last deyr season (Sept 91) has decreased by 25%. The semi-arid zone in the North East of the region, is one of the major cowpea producing area of Somalia.

Since the beginning of the war, cowpea production has decreased by 80% due to draught and lack of seed.

Since ICRC opened kitchens in the rural areas, many displaced, especially Bantus have returned to their villages.

The monthly food input until December 1992 is estimated at 1,300 MT, Mogadishu-North excluded.

8.6 HIRAN

This region after initial destruction of physical infrastructures and loss of properties which occurred right after the ousting of Siad Barre, was then spared from major military operations. Nevertheless the food reserves of the region rapidly melt away as the population got gradually cut off from their major cereal supply source, namely Bay region and Middle Shebelle.

As a land-locked clan region, regular food assistance has to be airlifted into the region.

Currently, Beletweyn shelters some 30,000 displaced from Bay, Bakol, Ethiopia and from Bulo Burti (mainly Bantus).

Displaced people in major settlements such as Dusa Mareb, Bulo Burti, El-Bur and Jalalaxi amount to 25,000 - 30,000 people. They above all are small agro-pastoralists from surrounding rural villages, who lost their animals and their crops by looting or drought. Many pastoralists who used to buy cereals from the main towns have their herds reduced by 20-30% because of food needs.

The ICRC food airlifts which started in Mid-March 92, and the profuse agri and vet-assistance has prevented further deterioration of the nutritional situation to levels witnessed further South or West of the Hiran region.

The areas cultivated in sorghum and maize during the "gu" season were similar to previous cropping seasons. The major factors limiting the cereal production in this relatively stable region is the lack of agri-machinery and irrigation facilities (wrecked at the beginning of the war).

Minimal monthly food input until December 92 is estimated at 800 mt.

8.7 NORTH EAST SOMALIA

North East Somalia comprise the regions of Bari, Nugal and Mudug. These regions have not been directly affected by the war. Nevertheless it had to support some of the consequences, notably the influx of about 50,000 people belonging to regional clans who lived in other areas before the war.

ICRC's food assistance aims at helping the indigenous community to support their displaced relatives. In general commercial food is available through the port of Bossasso. This food is financed by the export of livestock, frankincense and lobsters (small scale).

The agricultural sector plays a minor role. The population essentially consists of pastoralists, hence the vet-programme is of priority in this part of Somalia. In October ICRC supplied 220 kg of vegetable seed to main oases which got re-equipped with water pumps. This seed input aims at replacing the farmers old seed stocks by fresh seed, free of seed borne diseases.

Food assistance required until December 92 : Nil

8.8 NORTH WESTERN REGION

Ref. report "Agricultural Assistance, Northern Somalia, period May 92 - April 93, dated 26/05/92, Ref. MOG 92 R45

8.9 AGRONOMICAL ASPECTS

- The maize and sorghum varieties supplied as seed by International Agencies (ICRC included) and NGO's are "Katumani" maize and "Serena" or "Seredo" Sorghums. These varieties are easily available and widely grown in Sudan, Kenya, Uganda and Tanzania. However those varieties are not well adapted to the agro-climatic conditions of Somalia which are special when compared to other semi-arid areas of Sudan or Kenya.

- The agronomists observed that : the imported varieties do not have the required yield stability over the seasons, the water and heat stress tolerance and the storage qualities of the native maize and sorghum varieties. These main varieties locally named "Sintex" (maize) or "Bay Sorghum" are a crossings between local and imported genetical material from ICRISAT.
- The coastal farmers observed that : the imported varieties require more water to yield as much as the local varieties. The imported varieties require 1-2 supplementary irrigations. The probability of crop failure with imported varieties is about 30% higher than for indigenous cereal varieties. At present, the small farmers who lack seed to produce their subsistence crop, appreciate the imported varieties because they mature 10-14 days before the local varieties and are an early food source. The same farmers with regard to production of possible cereal surpluses (security permitting) will not sow these exotic varieties.
- The farmers of the hinterlands observe that : the probability of crop failure of the imported varieties is 50% higher than for the indigenous sorghum variety. Other comments are similar to the ones of their coastal colleagues, except for some cynical comments such as "if the sorghum does not produce any grains for us at least our animals will have some valuable fodder.
- The agronomists recall that :

The greatest variability in both wild and cultivated sorghum is in the North-Eastern quadrant of Africa.

The wild and cultivated sorghums affect each other continuously by gene exchange. All species and varieties of sorghum cross readily and, as there are no barriers of sterility or differences in genetic balance, the whole range of genetic characters combine easily. The ease with which the varieties of cultivated sorghum cross, and also with the wild sorghum, is a headache for the breeders, the seed producers and for the taxonomists too.

Given the above enumerated agronomical aspects; The ICRC agronomists jointly with agronomists from different NGO's are much concerned about the safe-keeping of the Somalian cereal genotypes and so are some agronomists of the Clemson University in USA (Ref Annex I).

The following recommendations are of primary importance.

- i) Limit as rapidly as possible the import of exotic maize and sorghum varieties in order to restrict the spreading of these varieties over large areas through hundreds of thousand of beneficiaries. Each of these seasonal wide scale input of imported varieties will lead to widespread crossings with the local varieties which are best adapted to the Somalian environment. Over the time and the seasons a gradual decrease in yield of the local varieties can be expected at a nation wide level.
- ii) Contract local farmers to progressively produce and provide for regional seed requirement. Oxfam plans to start seed multiplication with local farmers in September 1992. Given the present fluid situation in Somalia; there is a considerable risk of the harvest being stolen at the farmer's house or at the NGO's warehouse.
- iii) Local purchases of consumption cereals as a seed source have also to be considered. That however is only feasible in areas which are able to produce small surpluses. Such purchases are possible in the regions of Hiran and Lower Shebelle. The quantities purchase should in no way create a substantial price increase on the local cereal market. Barter can also be considered, but again only in a small scale.

The exchange of large amounts of food aid against large amounts of local cereals would have to be done through local dealers which in turn may create tensions at the sub or sub-subclan level and eventually block the whole exercise.

iv) In order to reduce the risk of being unable to purchase locally large quantities of food cereals as a seed, it is also strongly commendable to multiply some local seed in a safe environment, the main objectives being : -

- To take up the matter with the Kenyan Government in order to multiply some Bay region sorghum and some Shebelle maize in Kenya and this in accordance with the Kenyan seed production rules. Two Kenyan seed producers are in fact ready to immediately start with production. They also proposed some positive and negative selection to improve the seed quality. The launch and supervision of a seed emergency production programme would be a tailor-made project for FAO, till date they are less than lukewarm on the idea.
- To produce at mid-term 400-600 mt of maize and sorghum seed in order to complement small seed stocks, purchased or produced locally by NGO's (Accord, World Concern, Oxfam, Concern etc) active in Somalia.
- Last but not least to plan according to the evolution of the political situation, the production of foundation seed, basic seed and seed for food production (500-1000 mt). These seed stocks, when peace prevails would allow to immediately boost the cereals production and rapidly eliminate the side effects of the imported exotic seed. Clemson University, Blackville / USA and ICRISAT can acail at any time some germplasm of the bay region sorghum. Shebelle maize germplasm has yet to be traced.

Full attention should be given to the above considerations and proposals. A successful implementation would above all imply a strong coordination among agencies involved in emergency assistance only and agencies mandated for emergency and rehabilitation programmes with openings for

development activities (OXFAM, FAO). Such an operation could be a premier of an operation which includes components aiming at integrating basic elements of future rehabilitation programmes. In the present case that means to set the cornerstone of a future re-establishment of cereal surplus production thus optimize the reduction of food assistance and, at the same time follow ecological trends on respecting natural resources i.e. Somalia's varietal cereal heritage.

To conclude, ICRC and other international agencies are yet compelled to import large amounts of seeds, to complement small local purchases. This is an immediate measure to fight famine and minimize large food gaps. Nevertheless some means if adequate on a short term basis can become most inadequate in the long run. They could eventually engender more harm than good.

With regard to ICRC's wide experience in Somalia, it is ICRC's responsibility to sensitize itself and incoming aid agencies on the potential negative impacts of the provided assistance. ICRC's role shall however be restricted to sensitize aid-agencies to the problems and to their possible solutions. The implementation should be done by agencies involved in emergency and rehabilitation programmes e.g Oxfam, Accord, Concern etc.

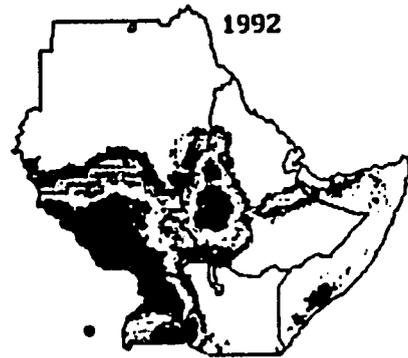
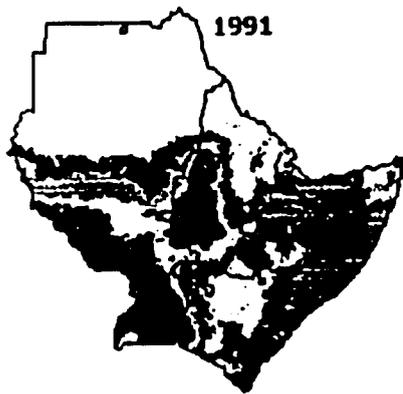
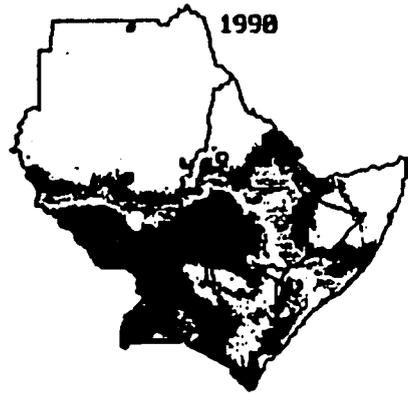
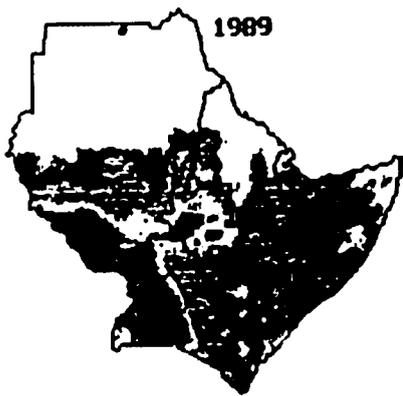
9. CLIMATE

The yields of the main staple crops have been substantially affected by erratic and scarce rains. Since 1989 the summed up "gu" rains have never been so poor. See Fig 1 page 23.

The areas which got sufficient rains to produce a medium to good harvest, are all situated on the coast, namely the regions of Middle and Lower Shebelle and Gelib / Middle Jubba. The hinterlands i.e the sorghum belt, faced severe yield reductions. For instance, in Bay region, sorghum yielded 150-300 kg per ha. Normal yields usually lie between 500-800 kg.

10. NATIONAL PRODUCTION

ICRC estimates that out of the 600,000 ha which were under cultivation before the war, just about 150,000 ha were cropped in April 1992 and, yielded about 75,000 MT of food of which 20% were produced out of ICRC seed.



MAR - JUN
1989 - 1992

CUMULATIVE COLD CLOUD DURATION

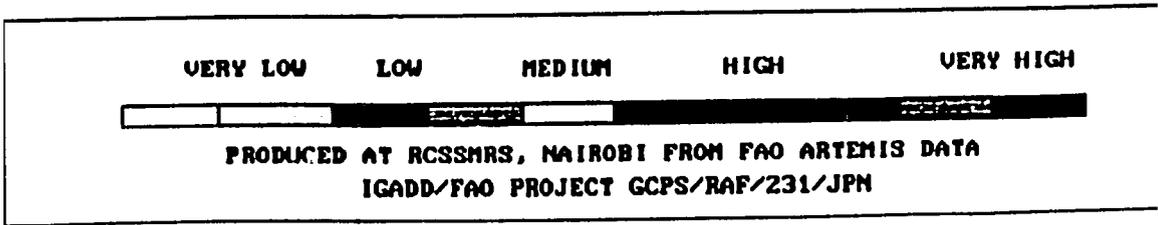


FIGURE 1

The small vegetable growers who depend on their vegetable sales to buy their staple food, request ICRC to assist them with seeds at intervals of 3-4 months. That would increase the regularity of their cash income and allow them to sell the produce of their irrigated crops at a better price. Indeed the seasonal rainfed vegetable production quickly saturates the local market as consumers spend their limited cash first on staple food "qaat" and then only on vegetable.

11. CONCLUSION

The experience of this years seed programme (gu season 92) showed that seed distribution was an indispensable part of ICRC's relief work in Somalia. Farmers in all target areas have realized that relief food will never be enough to satisfy all the needy people.

Accordingly farmers feel that queuing up for a seed distribution is a better insurance against hunger than to queue for food.

PART II

B. AGRICULTURAL ASSISTANCE - DEYR SEASON - "AUGUST - DECEMBER 1992"

This part of the report highlights the planning and implementation activities.

1. PLANNING RATIONALES

The planning of the "deyr" season 1992 referred to the following objectives and necessary actions.

1.1 OBJECTIVES

- to further assist displaced and resident farmers with adequate agricultural inputs.
- to assist on a priority basis the riverine farmers and further encourage them to cultivate food crops to regain self-sufficiency.
- to extend ICRC's agricultural assistance to agro-pastoralists and encourage them to cultivate their subsistence crops.

1.2 NECESSARY ACTION

1. To conduct regular agricultural production and nutritional surveillance in order to identify basic needs in general and areas in need of emergency assistance in particular.

Related to the findings of the regional surveys (see para 8, pg 14 - 18) conducted between June and August 1992, the following aspects have been retained for the planning of the seed distribution.

- In August, the international communities finally turned their full attention towards the hunger stricken Somalia. From then onwards, the large influx of international aid-organisations and NGOs, highly raised the hopes of survival of the Somalis.

In the field of agricultural assistance, the agencies response was high too, but the time left to purchase seeds and distribute them in time was extremely short.

The agencies rapidly demarcated their areas of assistance and thus enabled ICRC to readjust geographically and quantitatively its own seed distribution campaign.

- Given the desperate nutritional situation prevailing in some regions, ICRC expanded its kitchen network to major rural settlements. These expansions were of vital importance in the regions of Bay and Bakol and greatly helped:-

- i) to reduce the movements of rural people in search of food to regional or district town-centres.
- ii) to incite displaced farmers to return to their villages.
- iii) to provide the farmers with regular meals to regenerate their physical strength, hence their ability to crop some of their land.
- iv) to minimize the consumption of the seed at the time of the distribution.

- It was also necessary to adapt the distribution of imported sorghum seed according to agroclimatological restrictions (ref part I, para 8.9 Page 18) in order.

- i) to limit the risk of crop failure, especially in famine prone areas.
- ii) to incite NGOs to distribute local sorghum seed on a priority basis in those areas.
- iii) to compensate for the reduced sorghum seed input by substantially increasing the distribution of cowpea seed.
- iv) to avoid crossings of the local sorghum variety (best adapted to the environment) with the imported variety which is less tolerant to heat and water stress.

Distribute in a small scale some millet seed in order to incite farmers to eventually reverse to their historical crops which were best adapted to prevailing agroclamatological conditions. With the advent of agricultural development, the traditional crops such as sorghum and millet have been replaced by maize and sorghum respectively.

Given the destruction of the agricultural infrastructures the re-introduction of the millet crop in areas such as Gedo, Bay and Bakol could substantially limit crop failure (sorghum) and increase food production, especially in the deyr season. As the millet crop disappeared from Somalia some 30-40 years ago, the Somali farmers will not revert from sorghum to millet as easily as the Angolese farmers reverted from maize to sorghum.

2. To liaise with other Organisations involved in Agricultural Assistance in order to avoid duplication
EASY with Ngos, DIFFICULT with International Agencies

GEDO REGION

TROCAIRE, Irish NGO became active in Gedo in August. At that time, relief operations were regularly disrupted by disagreements among the local town authorities and by tensions with the fundamentalist brotherhood. As Trocaire showed a sound interest in agri-assistance, ICRC handed its seeds over to Trocaire. That allowed Trocaire to get familiar with the farmers' seasonal problems and needs. ICRC appreciated their help as they had more time to organize, cancel, reschedule a seed transport, whenever a possibility to reach one of the regional destinations arose.

Gu season, April 1993 : Trocaire plans to provide Gedo region with the necessary assistance.

MIDDLE AND LOWER JUBBA

The geographical demarcation of the agri-assistance was planned as follows. The districts of Kisimayo, Giamama and Gelib (10,860 families) would be assisted in seed, tool, fuel and pesticides by UNICEF / OXFAM.

The districts of Badhade, Afmadu and Buale (20,000 families) will be assisted by ICRC. In September, ICRC diverted 20 MT of seed foreseen for Afmadu, to Gelib and Giamama. These seed have been distributed to 3,050 families and covered about half of the families which could not be assisted by UNICEF.

GEDO, BAY AND BAKOL

CONCERN, Irish NGO distributed seed and tools to 6,519 families. Their agri-inputs have been purchased locally. Concern will also assist their beneficiaries with food until the harvest time. Concern's achievements and conscientious work are exemplary.

CARE planned to distribute 750 mt of seed. In September, they confirmed that they have 450 mt of sorghum on stock in Mombasa. In October, CARE started to buy local sorghum in Beletweyn in replacement of the 450 mt which presumably were not on stock in Mombasa. By the 20th of October they had distributed 47 mt of sorghum seed in the districts of Uegit and Rapdure / Bakol. The ICRC agronomists were rather relieved that CARE distributed local seed instead of imported seed (high risk of crop failure). Finally, the assistance of CARE and ICRC were perfectly complementary, as 90% of ICRC's seed-aid consisted of cowpeas.

MIDDLE SHEBELLE

ACCORD, British NGO provided for the needs in seed and tool of the district of Brava.

UNICEF / OXFAM were supposed to assist the districts of Afgoi, Koriola, Merca while ICRC would assist the district of Uanla Uen. Here again, ICRC distributed 20 mt of cowpea seed, vegetable seed and tools for 10,000 families in areas which were supposed to be assisted by UNICEF.

Save the Children Fund provided assistance to several villages in Beletweyn and Afgoi. Their inputs have been purchased locally, except for the vegetable seed.

FAO started to set up an agri-assistance programme by end of September. By mid October they realized that sowing time will be over by the time their seeds will arrive in Beletweyn and Baidoa. On ICRC's advice, they may distribute them to farmers growing irrigated crops (not dependent on seasonal rains) in Lower and Middle Shebelle.

To conclude, a lot of energy and goodwill was spent for small achievements and many farmers have been disappointed.

3. To extend ICRC's Agri-Assistance to areas inaccessible to other Relief Agencies for Security Reasons.
NOT NECESSARY.

Except for sporadic security incidents, all areas targeted for seed assistance have been freely accessible to any organisation. The only exception was Berbera, a military stronghold which kept on changing hands.

ICRC extended its assistance to areas for which the concerned relief agencies could not mobilize or buy enough seeds, to cover the most basic needs.

4. To forward information to organisations showing a keen interest to assist Somalia in the field of Agriculture
REWARDING.

All Relief Agencies visited ICRC for an introductory briefing on Agricultural Assistance in Somalia. That certainly greatly helped to have at present an agricultural assistance in Somalia whose qualitative and quantitative components are very homogenous. The only exception is UNICEF who started to distribute fuel to the farmers thus revived last year's endless request of the local authorities and the big farmer for fuel assistance. Besides UNICEF, all relief agencies do not favour fuel distribution because it is difficult to reach the few small farmers who own a pump. These farmers easily become the target of civil or military gun-cars and other looters. It is also unfair to incite small farmers to expand their irrigated areas while it is evident that due to fluid

security situations, relief agencies can not guarantee for regular supplies. A disruption in the fuel assistance during ten days may kill the crop.

2. SEED AND TOOL PURCHASE

1. In the Horn of Africa, the seed availability on the export market was even more limited than in the second semester of 1991. Between April and August, 1992, nearly 90% of our seed requirement could be mobilized through numerous small purchases in Kenya, Uganda and Tanzania. That also includes the seeds on stock for South-Sudan (operation on standby).
2. Out of the 900 MT of staple seed, 100 MT of maize and 10 MT of sesame seed could not be delivered by the suppliers. For the maize, the Tanzanian Government put a ban on all maize seed export just before the supplier finished with the packing. ICRC's appeal to the Government to exceptionally lift the ban as gesture of humanitarian solidarity was rejected.
3. As during last gu season, the attempt to purchase 750 MT of consumption cowpea as a seed and food assistance for the pastoralists and agro-pastoralists of the region of Galgadud and Mudug failed once more. ICRC Nairobi and ICRC Geneva managed to mobilize 150 MT only.
4. ICRC is indisputably known for its ability to have no break downs in its relief pipeline. Accordingly, the several relief agencies, especially the incoming NGOs often requested ICRC to help them out with food, seed and fishing material. Some NGOs, unable to find seed on a rather empty market, requested ICRC to use its connections to mobilize some seeds for them. ICRC restricted its help in introducing them to our seed suppliers. The higher prices paid by these NGOs for the seed, showed that ICRC's regular contacts with the seed suppliers do pay off.
5. Vegetable seed (3.12 MT) have been ordered with Pop Vriend / Holland. An additional 0.22 MT have been purchased with Horti-Tec in Kenya to cover needs identified in the North-East of Somalia.

Horti-Tec produces vegetable seed for Pop Vriend, packing is simple but good. The prices are 30% to 40% lower.

6. TANYA LIMITED / Nairobi, manufactured 50,000 hoes. The shape of the original Somali hoe had to be slightly modified, as the necessary raw material was not available in Kenya. The Somali farmers were not happy about it. Subsequently, ICRC bought 10 mt of second hand vehicle spring leaves. The idea was to supply this raw material to Somali blacksmiths, in areas where destroyed military vehicle were rare. Unfortunately, the Kenyan Government put a ban on the export of all vehicle scrap material (this as an attempt to limit the wave of car thefts in Kenya). This 10 MT of scrap will be transformed into "Somali" hoes built out of genuine raw material. Spring leaves are indeed the only material which allows to ally shape and solidity.

3. QUALITY OF PURCHASED AGRI-INPUTS, PACKING AND DELIVERY SCHEDULES

- 3.1 The seeds supplied by Kenya Seed Company / Nairobi, Meiser Trading Company / Uganda and Sluis Brothers / Tanzania were of good quality. The material used for the overall packing (50 Kg bags) and the sub-packing in 2 or 10 bags supported very well the extensive handling and transporting over long distances and on rough roads.
- 3.2 The different kits of vegetable seed supplied by Pop Vriend, were not packed as stipulated by ICRC. Geneva will ask for justifications. On the other hand they followed our instructions to use stronger carton boxes for the overall packing. None of the boxes were damaged during transport.
- 3.3 The agri-tools, supplied by Tanya Limited / Kenya were of good quality and so was the packing.
- 3.4 In general, the agri-input suppliers kept to the delivery schedules except for Pop Vriend (tolerable delay), Meiser Company, who could not supply for this season.

4. TRANSPORT

1. In August, the seed and tools to be transported by sea or air into coastal and hinterland regions of Somalia were positioned in Mombasa. Mombasa is the logistical base for ICRC's fleet of vessels and for the International communities' fleet of relief planes.
2. All possible attempts to ship seeds through the main ports of Kisimayo and Mogadishu before the start of the distribution failed. These two ports have kept their strategic and political function. Any party whose commercial and / or political requests were not satisfied did its most to block the access of the port until an acceptable solution to their demands was found.
3. The seed / tools for Lower and Middle Jubba (southern part) have been airlifted to Kisimayo. The seed for the coastal area of Lower Jubba have been shipped to Burgabo and Khuda. Ras Camboni could not be supplied as the captain of the vessel refused to go to Ras Camboni when he already was at sea.
4. The seed / tools for the Western parts of Lower Jubba were trucked from Nairobi to Holuquo and Liboi (entry points on the Kenyan border)
5. The seed / tools for Gedo region have been on stock in El Wak and Mandera since April as Aideed's military invasion definitely stopped the seed distribution.
6. The seed / tools for Lower and Middle Shebelle have been positioned in Merca and Moga North through beach landings.
7. The seed for the regions of Hiran, Baidoa and Bakol have been airlifted ex Mombasa.
8. From the warehouses of the main entry points, the seed and tools have been transported to their final destinations by Somali trucks. The security of the convoys consisted of armed guards and gun-cars. In Hiran region, 17 mt of seed out of 53 mt got stolen during the general looting of ICRC's warehouse in Beletweyn. The looters tried to sell these seeds in Hoddur / Bakol. As ICRC had just completed its distribution in Hoddur,

the truck continued towards Uegit. They knew that ICRC had not yet distributed in Uegit so there was a good guarantee to sell the seed for a better price. Another lot of 20 mt got diverted during its transport to Jalalaxi.

9. A truck with 10 mt of seed and tools, detonated on a land mine in Middle Jubba. Fortunately nobody got hurt, farmers from the surrounding villages unloaded the truck and transported the seed / tools on donkeys to their villages.

5. DISTRIBUTION HIGHLIGHTS

1. The seed distribution campaign was launched in Baidoa on the 8th September.
2. In general, the country remained divided in clan areas and the assistance had to be channelled directly to each clan area.

In comparison to the gu campaign (April 92) new military alliances, increased use of mines, clashes among sub-clans made transport more complicated.

3. The increase in numbers of airlift and in relief goods to be handled in each destinations brought good business opportunities. Everyday, new born handling / transport agents offered their services to the relief agencies. Their large numbers (45 agents in Beletweyn) prevented many of them to be employed and, the unemployed ones did their most to block the relief operations. For instance in Beletweyn, they put mines on the airstrip to prevent the plane from landing. All these minor incidents disrupted weekly or daily flight plans, lead to numerous rescheduling, created chaos and disrupted the proportion among the different type of seeds, which had allowed for immediate distribution.
4. The main criteria used for the quantitative repartition of ICRC's agricultural assistance among the regions were :
 - The numbers of agro-pastoralist and farmers residing in each region and their geographical repartition.

- The nutritional situation prevailing in the region or parts of the regions i.e the physical state of the rural population and the possibility to regularly feed them, seed consumption being directly proportional to food availability.
 - The geographical repartition of the food and agricultural assistance provided by different relief agencies.
 - The availability of the agencies to fulfil or not fulfil their distributions (Ref point 2, pg 24).
- 5 The farming community of Somalia can be divided into two main groups
- the agro-pastoralists, who are of Somali origin and
 - the Bantu farmers who migrated to Somalia in the middle of last century

The Bantu people are considered as outcast people by the Somalis. Their share in food-aid is small in hunger stricken areas and almost nil in famined areas.

To a lesser extent, the same rules apply for the agri-assistance. The best way to help the Bantu community is and will remain the distribution of fishing gear. The Somalis, except for some minor coastal clans, do not eat fish and despise fish eaters.

6. The ICRC agronomists had to take the unpleasant but unnecessary decision :
- to increase the seed-aid in the less famished areas and,
 - to decrease the seed-aid in areas where the farmers were too weak to cultivate the surface which would have allowed them to produce enough grain to feed their family from one harvest to the other.
7. The massive expansion of ICRC's kitchen programme to the rural areas some 4 - 6 weeks before the beginning of the sowing was the best way, if not the only way to support the farmer's limitless will to command to his emaciated body and thin hands to put some seed in the ground. The yields

of this small crop too will depend on the care the farmer can provide to his crop. The provided care (number of weedings, earthing up etc) will be directly proportional to the received food-aid.

8. The kitchens are the mothers of many farmers and the godmothers of each plant that the farmer had the energy to put in the ground.
9. Within the regions, or within a clan area, seed distribution committees have been set up in major rural settlements. The members of each of these committees consisted of members of the local administration and elders of the surrounding villages. The responsibilities of these committees are described under point part I point 5, page 7.
10. Given that the deyr rains in Bay and Bakol are usually poor, the ICRC substantially reduced the distribution of imported sorghum seed, which are poorly adapted to the environment. It would have been monstrous to waste the farmers little working energy on a crop which has a too high probability of failure. To compensate, the ICRC increased the distribution of cowpea seed, best adapted to the environment. Cowpea seed can also be sown without land preparation.

"Just hit the ground with a hoe, put 3 - 4 seeds in the hole and the work is done". There is no need to strenuously break the soil to prepare a seed bed.
11. In Gedo Region, some 30 MT of millet seed have been distributed to physically better of farmers in order to give them an opportunity to check and to see that under the current war and famine situation, millet may yield more than sorghum. (Ref also 2nd para, Page 27). The 30 MT of imported sorghum have been allocated to the surroundings of Baidoa. In this area, the deyr rains are twice as generous as in the rest of the region.
12. During the distribution, ICRC had to divert some seed to areas which were supposed to be assisted by UNICEF in order to cover some of the very basic needs. Ref point 2 Page 27).

13. The biggest part of the vegetable seed have been distributed to the riverine areas i.e. to the Bantu farmers. However, the riverine areas between Gelib and Berdera could not be supplied due to mine hazards. The small vegetable growers repeatedly asked ICRC to provide them with seed at intervals of 3 - 4 months in order to insure regular cash income.
14. The number of distributed agri-tools, was limited due to manufacturing problems. (Ref point 2/6 Page 31).
15. The fishing equipment provided by the Norwegian Red Cross will arrive in Mombasa by the end of November. In the meantime ICRC purchased some fishing hooks and fishing twines which have been distributed to 10,000 Bantu families in Middle Jubba.
16. The 150 MT of food cowpea which could be mobilized out of a requirement of 750 MT have been distributed in the triangle of Adale - Gal Hareri - El Dere region which is another major cowpea growing area could not be supplied. (Ref Point 2/3, Page 30).
17. The 800 MT of cereal and cowpea seeds have been distributed to approximately 80,000 - 90,000 families. About 90,000 families received vegetable seeds. These figures are however subjected to further sharing among families growing either cereals or vegetables.
18. The production expected from the 800 MT of cereal and cowpea seed will depend on the deyr rains but can be tentatively estimated at 23,000 MT.

The estimated yield has been calculated on a seed input reduced by 20% which is very probable estimate of the seed consumed as food.
19. The investment of USD 1.1 million in seed and in seed transport will generate USD 16.5 million worth of food-aid which theoretically has not to be imported.
20. Last but not least ICRC thanks all the ICRC and Somali colleagues and staff who have been directly or indirectly involved in the seed distribution campaign and, helped to raise the hopes of survival of many many farmers.

21. A special thank goes also to our local teams of agronomists who not only involved a lot of energy and goodwill in the programme but when compared to last season made enormous progress in their way to plan, organise and implement the distribution of the seed.

FACTS AND FIGURES

6.1 DISTRIBUTION TABLE

| REGIONS | WATER (SEED MT) | PUMPKIN (SEED MT) | TOMATO (SEED MT) | GREEN PEPPER (SEED MT) | ONION (SEED MT) | PACKETS |
|-----------------|--------------------|----------------------|---------------------|---------------------------|--------------------|---------|
| LOWER JUBBA | 18.49 | | 36.8 | 6.0 | - | 3,000 |
| MIDDLE JUBBA | 8.24 | | 92.10 | 52.35 | 22,050 | 7,000 |
| GEDO (**) | 20.0 | | 20.0 | 20.0 | 19,350 | 5,000 |
| BAY (***) | - | 20.05 | 21.8 | 77.2 | - | 5,000 |
| BAKOOL | - | 9.95 | 10.4 | 47.0 | - | 5,000 |
| HIRAN | - | | 53.0 | - | 22,200 | 5,000 |
| MIDDLE SHEBELLE | 52.65 | | 30.55 | 132.0 | 13,050 | 10,000 |
| LOWER SHEBELLE | - | | 30.0 | 40.0 | 14,850 | 10,000 |

(*) : Vegetable Seeds, each region received 33% of 3 different kits.
 Each kit contains 4 different vegetable packets

- Kit 1. Watermelon, pumpkin, tomato and hot pepper
- Kit 2. Watermelon, pumpkin, tomato and green pepper
- Kit 3. Watermelon, pumpkin, tomato and onion

6.2. STOCK POSITION

6.2.1 CEREAL AND COWPEA SEED

| PRODUCT | INITIAL STOCKS | CONTRIBUTED | IN BALANCE | REMARKS |
|-------------------|----------------|-------------|------------|-------------------------------|
| A. MAIZE | | | | |
| SO 2005 (1) | 5.24 | 4.41 | 0.83 | GOVERNMENT BANNED SEED EXPORT |
| SO 2046 | 2.0 | 2.0 | 0.0 | |
| SO 2084 | 0.0 | 0.0 | 0.0 | |
| SO 2085 | 4.0 | 3.97 | 0.03 | |
| SO 5004 (2) | 33.0 | 33.0 | 0.0 | |
| SDK 3159 | 56 | 56.0 | 0.0 | |
| B. BORGHUM | | | | |
| SO 2006 (3) | 8.82 | 8.82 | 0.0 | |
| SO 2044 | 27.98 | 26.83 | 1.15 | |
| SO 2067 | 100.0 | 100.0 | 0.0 | |
| SO 2071 | 60.0 | 60.0 | 0.0 | |
| SO 2083 | 30.0 | 30.0 | 0.0 | |
| SDK 3111 | 13.3 | 13.3 | 0.0 | |
| SDK 3160 | 56.0 | 55.70 | 0.3 | |
| C. COWPEA | | | | |
| SO 2045 | 47.95 | 47.93 | 0.02 | SEED NOT TREATED |
| SO 2048 | 132.0 (4) | 132.0 | 0.0 | |
| SO 2086 | 150.00 | 140.0 | 10.0 | |
| SDK 3197 | 54.62 | 54.62 | 0.0 | |
| D. MILLET | | | | |
| SO 2091 | 30.0 | 30.0 | 0.0 | |

- 1) CHANGED SDK 3104 INTO SO 2005 : TRANSFER OF ITEMS SUDAN TO SOMALIA PROGRAMME
- 2) CHANGED SDK 3195 INTO SO 5004 : TRANSFER OF ITEMS SUDAN TO SOMALIA PROGRAMME
- 3) CHANGED SDK 3105 INTO SO 2006 : TRANSFER OF ITEMS SUDAN TO SOMALIA PROGRAMME
- 4) 18 MT WERE LOADED IN MOMBASA FOR KITCHEN PROGRAMME

6.2.2 VEGETABLE SEED AND HOES

| PRODUCT | INITIAL | DISTRIBUTED | UNUSED | REMARKS |
|----------------------------|----------------|----------------|----------|---------|
| HOES SO 2079 | 50,000 PCS | 50,000 PCS | 0 PCS | |
| VEGETABLE SEEDS SO 2055 | 13,500 PKTS | 13,500 PKTS | 0 PKTS | |
| SO 186 | 78,000 KITS | 78,000 KITS | 0 PKTS | |
| TOTAL | 141,500 | 141,500 | 0 | |

PART III

C. AGRICULTURAL ASSISTANCE - GU SEASON "NOVEMBER - APRIL 93"

This part of the report presents a condensed proposal of the agri-programme for the gu season 1993 and also some working guidelines.

1. PLANNING RATIONALES AND NECESSARY ACTIONS

The objectives and the necessary actions are the same as for the deyr season / September 1992. For details ref. part II, point 1.1, Page 25.

2. AGRICULTURAL ASSISTANCE - NORTH WEST SOMALIA

2.1 PLANNED AND BUDGETED FOR IN JULY 1992

215 MT of cereals
210 Kg of vegetable seed
39,000 pieces of agri-tools

2.2 WORKPLAN NOVEMBER 1992 - MARCH 1993

2.21 PERSONNEL

The general planning and implementation activities are under the responsibility of Juerg Eglin, ICRC Agronomist / Nairobi and Abdulahi Hersi, Assistant Agronomist, ICRC Hargeisa. During the seed distribution they will be assisted by the ICRC delegate, the ICRC Relief Administrator and the Regional Somali Red Crescent Society.

2.22 SURVEYS

In November, the ICRC Agronomist will gather complementary information on the following aspects

- i) Revise ICRC's list of NGOs, contact NGOs involved in agri-assistance and demarcate with them respective areas of assistance.

- ii) Given that last August, Save the Children Fund retrieved its agri-assistance, a re-assessment of the needs in vegetable seed is necessary.
- iii) Assess possible regional differences in the lasting of the traditional food reserves and in the supply of commercial food grains.
- iv) Quantify difference in food reserve deficits faced by the resident farmers and the returnee farmers. ICRC's last survey showed that the returnee farmers, whose families partially leaves in Ethiopian refugee camps, managed to crop at best 0.3 - 0.4 ha. The rest of their time had to be spent in earning their daily food (work for others, sell firewood etc), and repair their destroyed homesteads.
- v) With regard to first information on excellent maize and sorghum yields, especially in Boroma, Arabsio and Gebiley and, to the findings of this survey, the agronomist will have to decide:-
 - If as per hear-say and as per internal ICRC rumours (not factualized) it would eventually be justified to reduce the foreseen volume of our assistance in cereal seed.
 - If instead to decrease the volume of the seed-aid it would be justified to double if not triple the amount in cereal seed for the returnee farmers. By now they should be partially re-settled and able to devote more time to their crops. An average family needs to crop 1-1.5 ha to be self-sufficient in food grains.
- vi) Assess the possibilities to buy 50% of our requirement in cereal seeds on the local food market. Identify potential suppliers and ask them to submit their quotations.

2.23 PURCHASE OF INPUTS AND DELIVERY SCHEDULES.

- Agri-tools: 39,000 pieces have been ordered by ICRC GVA. ETA Djibouti December 1992.
- Vegetable Seed: 220 Kg ordered by GVA. ETA Djibouti, December 92. Additional requirements to be ordered by 15th November 92. ETA Djibouti 15th January 93, latest.

- Sorghum Seed :

- Region of Adwal, North-West and Togdher : 50% of the seed requirement will be purchased in Kenya. Variety Seredo. In these regions, Seredo Sorghum is appreciated by most of the farmers. The adaptability of Seredo to the environment is acceptable, because the seasonal rains are regular and generous. Transport from Mombasa to Djibouti or Berbera by sea. Deadline 15th December. Transport from Djibouti to the regions by truck. If the road is not safe from Djibouti to Hargeisa, the other option is Berbera Port. The remaining 50% of the seed will be purchased on the local markets of Boroma and Hargeisa. Both towns should be considered for these purchases in order to avoid clannic favoritism. The purchases are split fifty-fifty because it cannot be guaranteed at 100% that the seed purchased and stored locally may not get looted before the distribution. Tensions may again arise with the re-launch of UN's food monetisation programme and with the re-attempt to form a national army out of the local armies.
- Saanag Region : Seed requirements will be submitted by PAI in November. Purchase should be possible locally within the region. Dimensions of assistance of 2,000 families at the most. If the seed have to be supplied from an outside source, the entry point will be either the port of Maidh or via North Eastern Somalia. The relationship between the Isaac and the Warsangeli are usually bad. Their "cousins" in Mejerthinia are usually more social.
- Sool Region : To channel seed-aid via Berbera-Burao into Sool is quite impossible. Accordingly, the assistance (20-25 MT of seeds) will be bought and stored in Garoe and channelled into Sool by road ex-Garoe.
- Maize Seed : 15 MT to be purchased by 30th November, variety : early local, 90 - 110 days crop. Area of Distribution : Sheikh. If not available locally replace by Katumani Seed / Kenya. Transport by sea Mombasa Djibouti or Berbera (depends on security in Berbera Port) by sea, latest by 15th December, along with the 80 - 100 MT of Sorghum Seed bought in Kenya.

2.24 TIMETABLE

- Deadline for pending orders : 30th November.
- Deadline for positioning the seed / tools in ICRC or SRCS Warehouses : 15th January.
- Distribution : launch by 15th January. Complete by 20th February.
- Assess fairness of distribution at village level and quality of germination by beginning of April 1993.

3. AGRICULTURAL ASSISTANCE - SOMALIA

3.1 PLANNED AND BUDGETED FOR IN JULY 92

700 MT Cereal Seed

200 MT Cowpea Seed

750 MT of consumption cowpea as a food and seed source for the regions of Mudug and Galgadud (details Ref point 2/3, Page 30).

4 MT of Vegetable Seed

100,000 Hoes (genuine Somali hoes)

3.2 WORKPLAN - NOVEMBER 92 - APRIL 93

3.2.1 INTRODUCTION

With the unarmed intervention (3,500 troops) to be dispatched in Mogadishu, Kisimayo, Bossaso and the growing interest / support of the international community which is pushing the UN to take the lead on the relief effort to Somalia, the ICRC will have to adapt its role / assistance to the success of this intervention.

Considering the volatility of the Somali situation, the famine stricken regions of Gedo, Bay and Bakol, the fragile nutritional situation prevailing in most of the other regions, the relief needs are, in the future, far from being covered. The dimensions of ICRC's assistance will therefore have to be maintained at the present level, at least until December 1992. In the aftermath, ICRC's efforts will be adapted to the effectiveness of the other organisations.

The same approach applies for the agricultural assistance. The overall needs in terms of agricultural assistance are enormous. The target population with regard to freedom of movement (mine hazards increase) and volatile security is 250,000 families (min) to 500,000 families (max). In a volatile situation the farmer will at best be able to grow a subsistence crop i.e 1 to 1.5 Ha. In case of a relatively stable situation the farmer's ability and interest to grow some surpluses will rapidly increase i.e 2 - 4 Ha. Accordingly, the seed requirements lie between 2,500 MT (min) and 5,000 MT (max). About 1,000 MT will be required to re-activate the cereal production in the Bay region only.

3.22 PERSONNEL

The general planning and implementation are under the responsibility of the two ICRC Agronomists and Mohammed Abdi Ware assistant agronomist. During the seed distribution they will be assisted by the ICRC Relief Delegate and by the regional or clan affiliate agronomists.

3.23 COLLABORATION WITH NGOs AND INTERNATIONAL AGENCIES

For past collaboration, ref part II, Point 2, Page 27.

The collaboration among the aid-agencies and, the geographical demarcation of the assistance are, still date rather chaotic. The main reasons are that most of them became active shortly before the beginning of the cropping season. Everybody was busy in carrying out assessments, seed purchases and distributions of whatever amounts of seeds they have been able to mobilize. For several organisations it was somehow compulsory, for reasons of public relation, fund raising ..., to work in the most famished areas.

That on one hand led to an overcrowding of agencies in these areas and on the other hand, the regions where the situation if not catastrophic is nevertheless critical, have been left aside i.e Hiran, Middle and Lower Jubba, Galgadud and Mudug which need cowpea seed.

With regard to the planning of the agri-assistance - gu season / April 1993, ICRC together with Concern, World Concern and FAO will arrange, by mid-November,

a meeting with all agencies involved in agri-aid in order to have preliminary discussions on the geographical demarcation of the assistance. All agencies should, latest by mid December, be able to confirm in which area(s) or region(s) they will work and precisely define the content and dimensions of their assistance.

Accord, Trocaire, World Concern, ICRC and eventually Care will have at hand, by mid November, a first draft of their respective agricultural assistance programme. The other organisations like Oxfam, Save the Children Fund, Unicef and FAO should avail their proposals by mid December.

In order to substantially improve the repartition of the agri-assistance in Somalia, the coordination between the supportive organisations has to be drastically improved. For example everybody knows that the volume of assistance in form of maize seed and sorghum seed varies according to the climatical zones. If the areas of assistance are not clearly defined before the respective agencies place their seed orders, several aid agencies are going to have at their disposal quantities of maize seed and sorghum seed which may not tally with the needs. Consequently the content and the dimension of the assistance will be determined by quantities and types of seed at hand and not by real needs. The risk of duplication will increase too.

The NGOs planning to buy most of their seeds locally or to produce some seed with Somali farmers should concentrate their efforts in areas where imported seed are the least adapted to the somali environment (security permitting).

NGOs which will provide assistance for the emergency and rehabilitation phases or even for a third phase of development, should not concentrate all their efforts around Kisimayo and Mogadishu, but divide up their presence in the different clan regions.

3.24 PRODUCTION OF NATIVE (SOMALI) MAIZE AND SORGHUM SEED IN A SAFE ENVIRONMENT

The technical aspects related to this proposal are:

- to provide the Somali farmers with native seeds, best adapted to the Somali environment in order to progressively reduce the distribution of large

amounts of imported seed to hundreds of thousands beneficiaries throughout Somalia. The imported seed varieties are indeed far from being well adapted to the agroclimatological conditions of Somalia. Risks of crop failure are medium to high and, the farmer's limited working energy should not be wasted. Each seasonal input of imported seed will result in widespread crossings, which in turn will negatively affect the adaptability and yield potentials of the native varieties.

- to complement small scale seed purchases and production programmes undertaken in Somalia.
- to produce a limited stock of basic seed (available with ICRISAT), foundation seeds and seed for crop production. These stocks could on one hand allow to restore optimal production levels in the safest areas of Somalia e.g North-East and, on the other hand allow to immediately boost national production, when a semblance of general peace will prevail.

Today, FAO has been sensibilized to the idea. The planning, supervision and implementation of such a seed emergency production programme would be a tailor made project for FAO. In a first phase these seed could be produced with Kenyan Seed Companies and in a second phase, some seed could be produced with needy farmers of the North-East of Kenya. The production could be supervised by agencies involved in cross border operations. Such seed multiplication programmes would help the Somali farmers (in seed) and the Kenyan farmers (in cash income).

ICRC strongly lobbies on the idea. EC and USAID who are major donors to Somalia and north-east Kenya are very responsive to the idea / proposal. ICRC, EC, USAID should do a maximum of efforts to identify one or more organisations interested in the implementation of such seed production programmes.

ICRC, is presently the organisation which distributes the largest amount of imported seed to Somalia in order to fight famine and minimize large food gaps. But at the same time, ICRC is also responsible for the long term negative impact of these inputs on Somalia's varietal "heritage". THIS MEANS WE CAN IN NO WAY HIDE BEHIND THE SCREEN OF EMERGENCY ASSISTANCE, OUR CREDIBILITY TO PROVIDE ADEQUATE AGRICULTURAL ASSISTANCE IS ALSO AT STAKE.

For the next season ICRC plans to start with local seed purchases in Somalia. However these local purchases are limited by the availability of surpluses, by a rapid increase of local market prices at the expense of the local consumers and by the risk of losing the seeds through looting.

The possibility that the international community and some NGOs are ready to multiply some seed in Kenya for the next season, are extremely low. ICRC intends to supply and multiply 350 kg of sorghum and 500 kg of maize seed with one of our kenyan seed supplier. The expected yield will be around 50 MT of sorghum and 60 MT of maize seed, which will be re-injected to Bay region and to coastal maize growing areas.

This exercise, shall provide the first hard facts in order better sell the feasibility of a large scale production of Somali varieties in Kenya to donors and to a potential implementing agency.

3.25 PURCHASE OF AGRI-INPUTS AND DELIVER SCHEDULES

- Native Somali hoes :

100,00 pieces. An order for 28,00 pieces has been place in Kenya. The manufacturing of the balance will be subject to availability of raw materials in Kenya or its import from Germany. The shape and solidity of the native hoe makes it compulsory to use raw material (steel) used for the fabrication of vehicle spring leaves.

Between November and December, ICRC will also place several orders for small quantities of hoes with reliable Somali blacksmiths.

- Vegetable seed : 4 MT of vegetable seed will be ordered by Geneva by the end of November. ETA Kenya : Feb. 1993.

- Maize Seed : 400 MT. An order for 100 MT has been placed in Uganda. The balance will be purchase in Kenya, availability permitting. Eventual deficit in purchases could be solved by Magric / Uganda. The first processed seed will be available by end of January 93.

- Sorghum Seed : 300 MT, orders for 260 MT have been placed with Sluis Brothers, Arusha / Tanzania: 30 MT; Oil Crop Development Limited, Nakuru / Kenya : 50 MT, Horti-tec, Naivasha / Kenya : 100 MT, and Meiser Limited / Kenya : 80 MT. Balance requirements can easily be mobilized until December 1992.
- Cowpea Seed : 200 MT; according to availability, the following orders have been placed : Sluis Brothers, Arusha / Tanzania : 100 MT, Balance requirement : Medium possibility to mobilize until February 1993.
- Consumption Cowpea : 750 MT; Intention of purchase signed for 255 MT with Comet Freight, Nairobi / Kenya. Purchase of balance requirement to be coordinated with purchase section / Geneva.
- Local purchase in Somalia:
Timing : January - February. Source : Deyr crop, sown in September - October 1992. These local purchases will be in the tune of 50 - 100 MT. They will serve to spare some seed out of the 900 MT as reserves for South Sudan or as reserves for the seed distribution in Somalia in September 93. Storage conditions in Nairobi are good.

3.26 WORKPLAN SEE WORKPLAN DIAGRAMME : 3.27

- a) Purchase seed and tool requirements for the "gu" programme 1993.
- b) Purchase of 20 - 50 MT of cereal seed and 5,000 - 10,000 hoes in Somalia.
- c) Keep in touch with seed suppliers in Kenya, Uganda and Tanzania.
Follow up on seed stocks available on the export market. Plan purchase for the deyr programme according to seed demand and supply situation.
- d) Assess jointly with regional somali agronomists fairness of seed distribution at village level, and estimate the lasting of the food grains produced by the deyr crop, and forecast food deficits for the period of January - June 1993.

- e) Distribute fishing equipments provided by the Norwegian Red Cross to riverine and coastal areas.
- f) Focus on the necessity of all agencies involved in agricultural assistance to rapidly demarcate their areas of assistance.
- g) Continue to sensibillize donor and potential implementing agencies on the need to produce larger quantities of native (Somali) cereal seeds in a safe third country e.g Kenya.
- h) Follow up on and gather data on the small scale production of native cereal seeds carried out by Horti-Tec Kenya, on behalf of ICRC.
- i) Assess regional needs in seed and tools in ICRC's demarcated areas of assistance.
- j) Finalize seed distribution plan, add last changes related to probable population movements and / or to eventual gaps in assistance of other organisations.
- k) Position seed and tools to be shipped or airlifted to Somalia in Mombasa.
- l) Position seed and tools at ICRC's entry points located on the Kenyan border.
- m) Launch the seed distribution campaign by last week of February. Complete the distribution latest by 10th April, 1993.

WORKPLAN DIAGRAM

| WORK | OCTOBER 1984 | NOVEMBER 1984 | DECEMBER 1984 | JANUARY 1984 | FEBRUARY 1984 | MARCH 1984 | APRIL 1984 |
|------|-----------------|------------------|------------------|-----------------|------------------|---------------|---------------|
| a) | XXXX | XXXX | XXXX | XX | | | |
| b) | | | XX | XXXX | XXXX | | |
| c) | | | | | XXXX | XXXX | XXX |
| d) | | XX | XXXX | | | | |
| e) | | | XXXX | XXXX | XX | | |
| f) | XXXX | XXXX | XX | | | | |
| g) | XXXX | XXXX | XXXX | XXXX | XXXX | XXX | XXXX |
| h) | | XX | XXXX | XXXX | XXXX | X | |
| i) | | X | XXXX | X | | | |
| j) | | | | XXX | X | | |
| k) | | | | | XXX | | |
| l) | | | | | XX | | |
| m) | | | | | XX | XXXX | X |

a,b,c,.....ref 3.26

1/2/3/4 : WEEKS

DB

on/sec

17.03.92 05:21

ANX: I

CLEMSON UNIVERSITY
Division of Agriculture and Natural Resources
Edisto Research and Education Center
Blackville, SC 29817

FG R
FACSIMILE LEAD SHEET

AL
MU:
OPITAFEW

TO:

MARCOS DOLDER

RELIEF DIVISION, ICRC

FAX 011.41.22.733.2057 TL

FROM:

PAUL PORTER

Department of Agronomy & Soils

CC: BAE
SO 14
DSI

FAX # (803) 284-3684
Voice Phone: (803) 284-3343

Number of Pages: (3)
(Not including this sheet)

Time Sent: 15:00 (6hr diff) Date: Sept 16, 1992

By: PMP

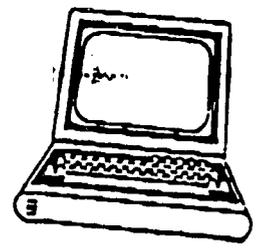
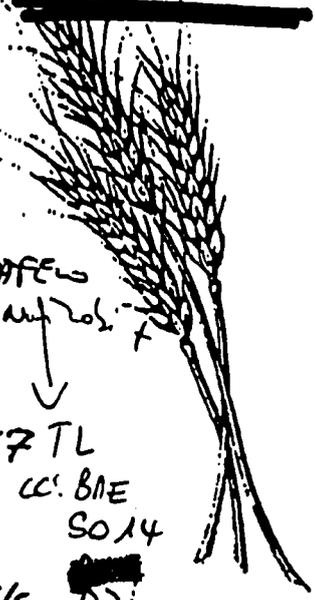
Comments: Ray Region Sorghum - SOMALIA

Your speedy response is appreciated.

*Sincerely,
Paul Porter*

22 SEP 1992

Relief (3x)
PS
GT: 14



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College of Agricultural Sciences

S.C. AGRICULTURAL EXPERIMENT STATION/EDISTO BRANCH STATION



Sept. 16, 1992

To: Dr. Marcos Dolder
Relief Division, ICRC
tel 41.22.734.6001 FAX 41.22.733.2057

From: Dr. Paul Porter, agronomist - Clemson University
P.O. Box 247
Blackville, SC 29817 USA
tel (803) 284-3343 FAX (803) 284-3684

A handwritten signature in black ink, appearing to read 'Paul Porter'.

Subject: Future distribution of Bay Region Somali sorghum

I worked in Baidoa, Somalia, from 1986-1988 as an agronomist with the "Wyoming Team" under contract with USAID. I am interested in knowing what ICRC or others are doing (or plan to do) in the Bay Region with regards to distributing seed for farmers to plant. My interest is to see that farmers have seed to plant in the upcoming "gu" season (April, 1993). The assumption is that sorghum seed for planting is quite limited because of the drought and fighting.

While it is relatively easy to bring in other sorghum varieties to the Bay Region (for example from Uganda, Ethiopia, ICRISAT and the USA), those varieties are not well adapted and do not have the yield stability over seasons, threshing qualities, or storage qualities of the "Bay Region Sorghum." Ultimately it would be best to reintroduce the "Bay Region Sorghum" (and perhaps certain mungbean and cowpea varieties) back into the region.

Perhaps it would be prudent to plant the "Bay Region sorghum" in a safe environment for seed increase. The ultimate goal would be to send the seed back into Somalia for planting when conditions allow. Other sorghum seed could be sent into the area as a stop-gap measure for food/fodder. By having planted a small amount of land with the "Bay Region Sorghum," the farmers could then save that seed to plant the next season if they so choose.

At this moment the feasibility of obtaining viable seed from Somalia is being ascertained by DART. If that is not possible then it may be necessary to use the "Bay Region Sorghum" germplasm from ICRISAT and the USA (I have some and so do researchers in Texas).

Enclosed is a rough draft of a proposal aimed at getting "Bay Region Sorghum" seed multiplied out and back into the region. I am currently talking with Peter Smith of OFDA and Richard Record of USDA about this proposal, but would like to make sure efforts are not duplicated. Please contact me if you have any suggestions on how to further stimulate people into acting on this concept.

1 of 3

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Collection/Multiplication/Distribution of Small Sorghum

Objective:

Distribute sorghum seed of local germplasm to farmers in the Bay Region for use as seed for future crop.

Assumptions:

1. The Bay Region traditionally produces 50-60% of Somalia's sorghum.
2. Most farmers do not have viable sorghum seed to plant.
3. Imported seed is adequate for emergency planting, but lacks yield stability across seasons/environments.
4. Local sorghum germplasm is best adapted to environment and should be re-introduced as quickly as possible.

Procedure:

1. Collect viable seed from Bay Region. (Oct. '92)
2. Plant that seed in stable environment. (Oct. '92)
(Ethiopia, India, Belize)
3. Packet treated seed for distribution to farm households. (March '93)
4. Distributed seed will yield enough sorghum seed for future planting season. (March '93)

Facts as we know (or knew) them:

- | | |
|--|--------------------|
| 1. Bay Region produces 50-60% of Somalia's sorghum. | |
| 2. "Farmers" in Bay Region: | 450,000 |
| 3. Farm villages in region: | 1,500 |
| average size of village: | 300 people |
| 4. Average farm "household" size: | 5.8 people |
| 5. Farming households in region: | 78,000 households |
| 6. Average sorghum acreage/household: | 4 ha |
| 7. Sorghum acreage in region: | 310,000 ha |
| 8. Sorghum plant population: | 60,000 plants/ha |
| 9. Seeding rate [assumes 75% stand establishment]: | 80,000 seeds/ha |
| 10. Seed size: | 2.5 g / 100 seed |
| 11. Seeding rate | |
| [assumes 80,000 seeds/ha and 2.5 g / 100 seeds]: | 2.0 kg/ha |
| 12. Seed required per household to produce future crop | |
| [4 ha/household X 2 kg/ha =]: | 8.0 kg/household |
| 13. Average yield in Somalia: | 500 kg/ha |
| 14. Planted acreage required to produce seed for future crop | |
| [8 kg/household X (1 ha/500kg) =]: | 0.016 ha |
| 15. Acreage needed per household to produce enough seed for future crop [2 kg/ha X 0.016 ha =]: | 0.032 kg/household |

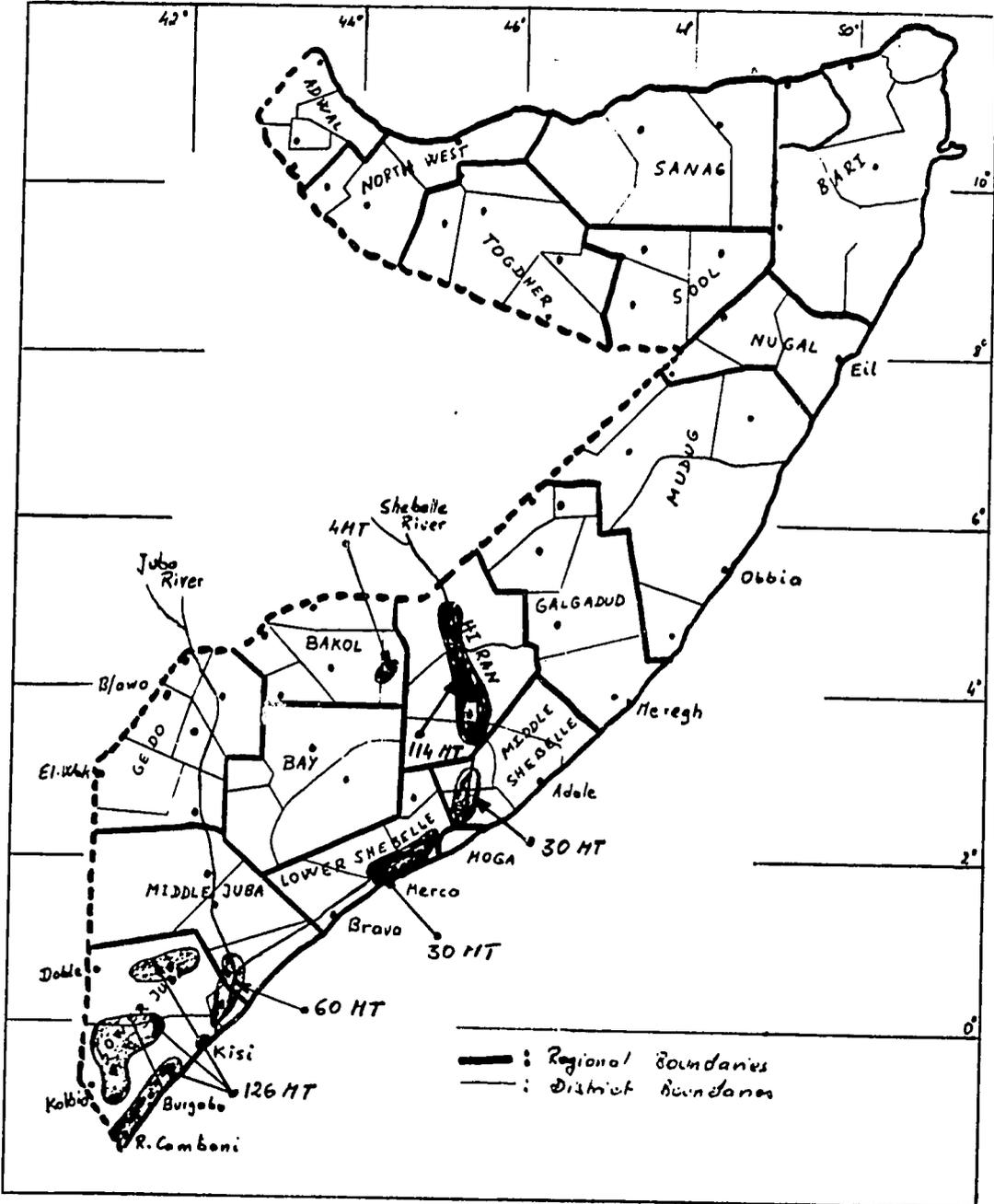
SOMALIA

ANNEX II/A

regions and districts

AREAS OF SEED DISTRIBUTIONS

DEYR SEASON

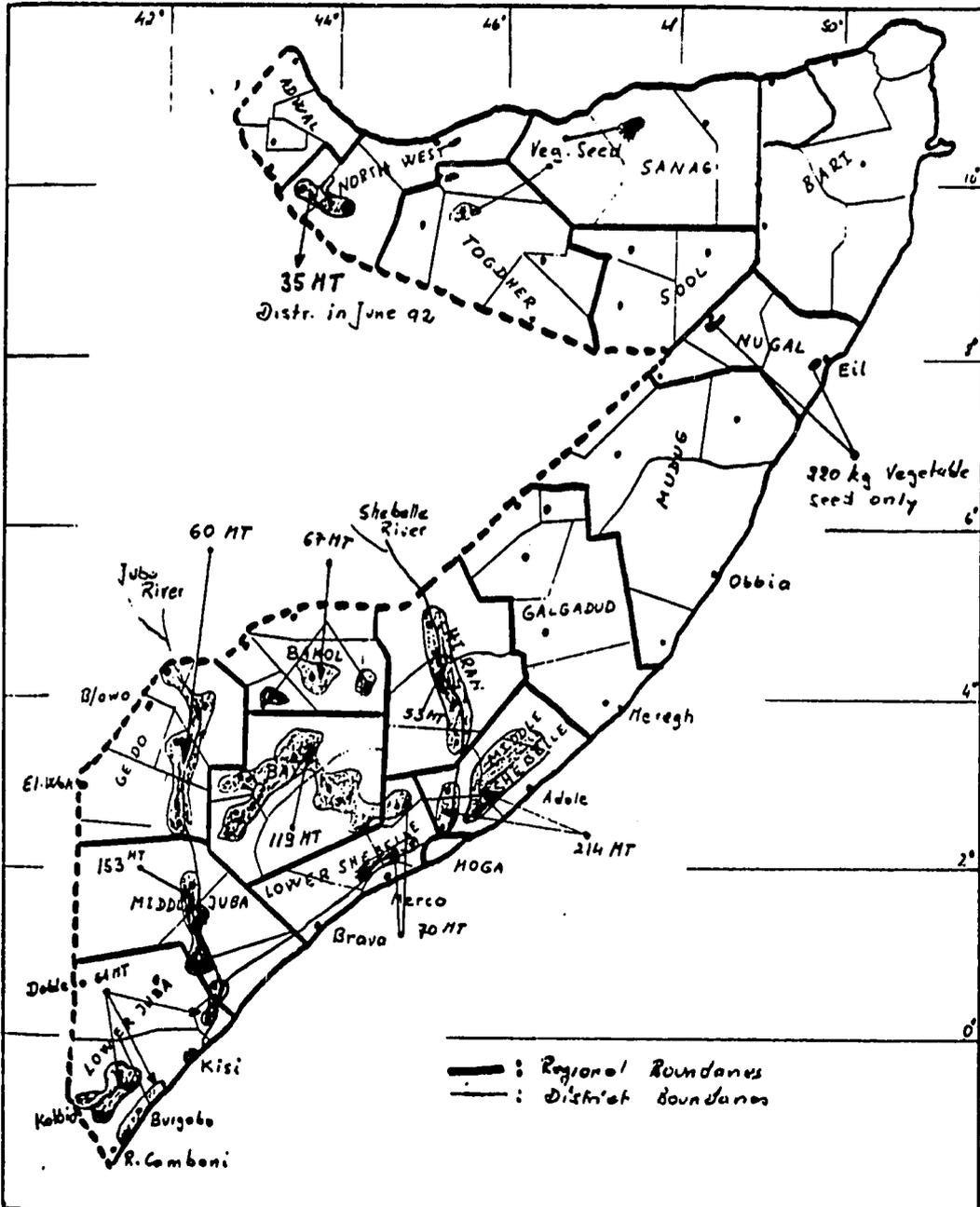


SOMALIA

regions and districts

REAS OF SEED DISTRIBUTION:

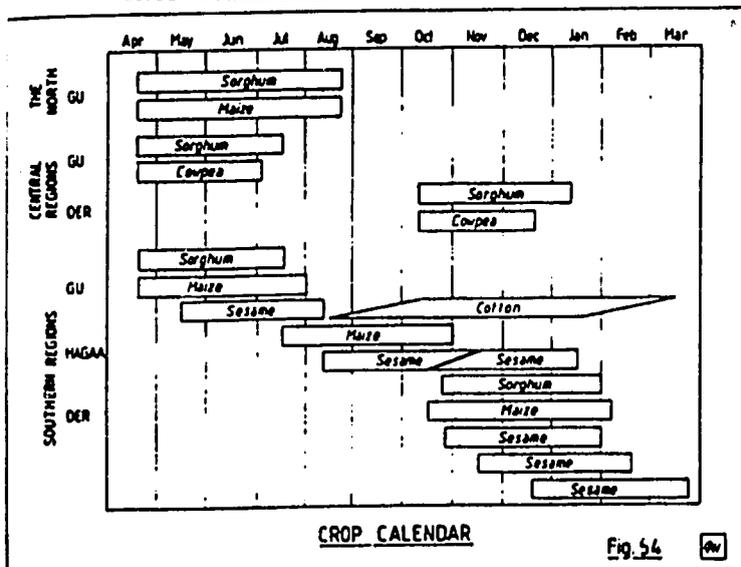
"GU" SEASON



MONTHLY AND ANNUAL RAINFALL AT VARIOUS STATIONS

| Station | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL |
|-------------|------|------|------|-------|-------|-------|------|------|------|-------|-------|------|--------|
| Afgoi | 2.7 | 1.4 | 7.6 | 87.8 | 92.9 | 57.6 | 53.8 | 22.9 | 11.9 | 55.2 | 106.9 | 36.7 | 537.4 |
| Afnadu | 4.9 | 12.3 | 32.3 | 101.8 | 80.9 | 22.7 | 29.5 | 13.0 | 17.5 | 83.8 | 97.2 | 53.4 | 549.2 |
| Alessandra | 1.8 | 2.6 | 6.3 | 136.1 | 140.2 | 73.3 | 54.2 | 19.4 | 21.1 | 67.1 | 69.7 | 45.4 | 637.2 |
| Baldoo | 2.4 | 4.7 | 23.4 | 152.9 | 110.8 | 15.2 | 16.9 | 7.4 | 13.0 | 141.1 | 85.8 | 11.4 | 584.8 |
| Baled | 6.9 | 1.9 | 7.9 | 88.8 | 87.1 | 50.7 | 21.1 | 14.7 | 14.9 | 61.0 | 87.6 | 33.5 | 476.1 |
| Bardera | 5.4 | 6.1 | 23.0 | 97.8 | 61.0 | 12.3 | 20.0 | 6.4 | 7.8 | 74.4 | 80.0 | 24.3 | 418.7 |
| Balet Uen | 0.1 | 0.4 | 6.2 | 61.4 | 71.5 | 9.6 | 1.8 | 2.0 | 9.6 | 66.5 | 30.5 | 6.3 | 266.1 |
| Berbera | 5.2 | 5.2 | 10.9 | 10.9 | 8.5 | 0.6 | 1.6 | 2.3 | 2.1 | 2.2 | 3.5 | 3.7 | 56.7 |
| Borama | 5.1 | 12.7 | 33.0 | 78.7 | 76.2 | 38.1 | 33.0 | 53.3 | 73.7 | 71.1 | 25.4 | 15.2 | 516.0 |
| Bosaso | 0.3 | 0.0 | 0.5 | 5.2 | 2.8 | 0.0 | 0.0 | 0.0 | 0.0 | 2.1 | 5.2 | 2.0 | 18.1 |
| Brava | 0.4 | 0.0 | 2.8 | 49.8 | 83.3 | 95.9 | 66.4 | 22.5 | 17.3 | 14.3 | 20.1 | 10.0 | 382.8 |
| Bulo Bertl | 2.5 | 2.4 | 15.9 | 73.1 | 66.4 | 3.9 | 4.3 | 2.8 | 12.1 | 87.6 | 62.0 | 5.7 | 338.7 |
| Burao | 1.3 | 0.6 | 8.4 | 35.1 | 56.9 | 14.6 | 10.9 | 12.8 | 25.2 | 20.7 | 11.6 | 1.7 | 199.8 |
| Bur Hakaba | 3.0 | 0.2 | 11.7 | 129.2 | 84.3 | 15.1 | 21.0 | 3.6 | 9.7 | 106.1 | 56.4 | 10.0 | 450.2 |
| El Bur | 4.7 | 1.2 | 13.8 | 52.4 | 49.2 | 1.5 | 3.4 | 1.1 | 6.6 | 49.0 | 20.0 | 6.7 | 209.7 |
| Erigavo | 12.1 | 9.6 | 23.2 | 29.6 | 58.3 | 45.1 | 6.5 | 30.3 | 80.3 | 4.9 | 8.6 | 1.2 | 309.7 |
| Galcayo | 0.2 | 1.4 | 3.0 | 29.2 | 53.3 | 4.3 | 0.4 | 1.5 | 3.2 | 46.5 | 14.5 | 1.3 | 158.7 |
| Gehiley | 2.9 | 3.9 | 22.5 | 53.3 | 49.3 | 49.5 | 74.3 | 89.3 | 67.7 | 13.4 | 9.4 | 2.2 | 429.8 |
| Genele | 1.0 | 0.1 | 5.7 | 109.9 | 82.3 | 78.1 | 61.3 | 48.4 | 18.3 | 27.0 | 54.4 | 21.1 | 507.6 |
| Hargeisa | 5.7 | 19.9 | 38.9 | 61.4 | 67.5 | 46.3 | 43.5 | 70.9 | 60.8 | 25.3 | 13.7 | 3.6 | 457.5 |
| Hoddur | 1.9 | 0.6 | 10.9 | 109.2 | 67.2 | 1.6 | 4.7 | 0.8 | 15.5 | 97.3 | 46.2 | 4.5 | 360.3 |
| Jamaame | 1.5 | 3.7 | 7.4 | 70.0 | 101.5 | 83.9 | 62.5 | 24.4 | 36.5 | 27.6 | 38.5 | 19.6 | 382.9 |
| Jowhar | 4.8 | 1.2 | 21.3 | 94.0 | 88.2 | 25.4 | 25.8 | 15.7 | 10.9 | 105.9 | 79.9 | 21.4 | 494.5 |
| Jowhar(HTS) | 8.1 | 4.0 | 23.3 | 86.5 | 113.7 | 30.2 | 29.3 | 19.9 | 6.0 | 111.6 | 87.3 | 21.6 | 541.4 |
| Kismayo | 0.5 | 0.8 | 3.1 | 39.6 | 103.3 | 106.0 | 57.6 | 24.7 | 22.5 | 14.3 | 16.3 | 4.8 | 393.5 |
| Las Anod | 1.0 | 0.8 | 3.7 | 14.1 | 51.8 | 1.3 | 0.0 | 0.0 | 14.8 | 29.7 | 10.1 | 2.3 | 171.6 |
| Lugh Ganane | 1.5 | 3.2 | 26.7 | 102.0 | 40.8 | 0.8 | 2.6 | 0.2 | 1.2 | 46.3 | 57.1 | 15.7 | 298.2 |
| Mogadishu | 0.5 | 0.9 | 7.3 | 60.1 | 61.5 | 79.8 | 66.3 | 40.8 | 20.1 | 30.3 | 49.4 | 9.2 | 426.1 |
| Obbia | 10.3 | 1.8 | 16.9 | 29.0 | 45.2 | 3.6 | 0.3 | 0.1 | 2.6 | 28.9 | 45.7 | 19.1 | 203.5 |
| Qardo | 0.2 | 0.9 | 6.7 | 24.7 | 31.6 | 3.4 | 0.5 | 3.1 | 7.2 | 18.7 | 3.8 | 1.3 | 102.0 |
| Sheik | 5.5 | 5.8 | 24.8 | 82.1 | 71.9 | 35.0 | 30.7 | 57.5 | 74.0 | 68.6 | 28.1 | 14.0 | 499.9 |
| Wanle Uen | 5.1 | 4.3 | 8.1 | 165.0 | 87.5 | 29.8 | 33.1 | 18.1 | 14.4 | 95.2 | 71.2 | 26.9 | 558.7 |
| Zaile | 11.5 | 4.3 | 8.0 | 17.2 | 7.1 | 0.0 | 2.1 | 4.2 | 1.2 | 7.1 | 24.2 | 13.3 | 99.9 |

CROP CALENDAR



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ANNEXE IV

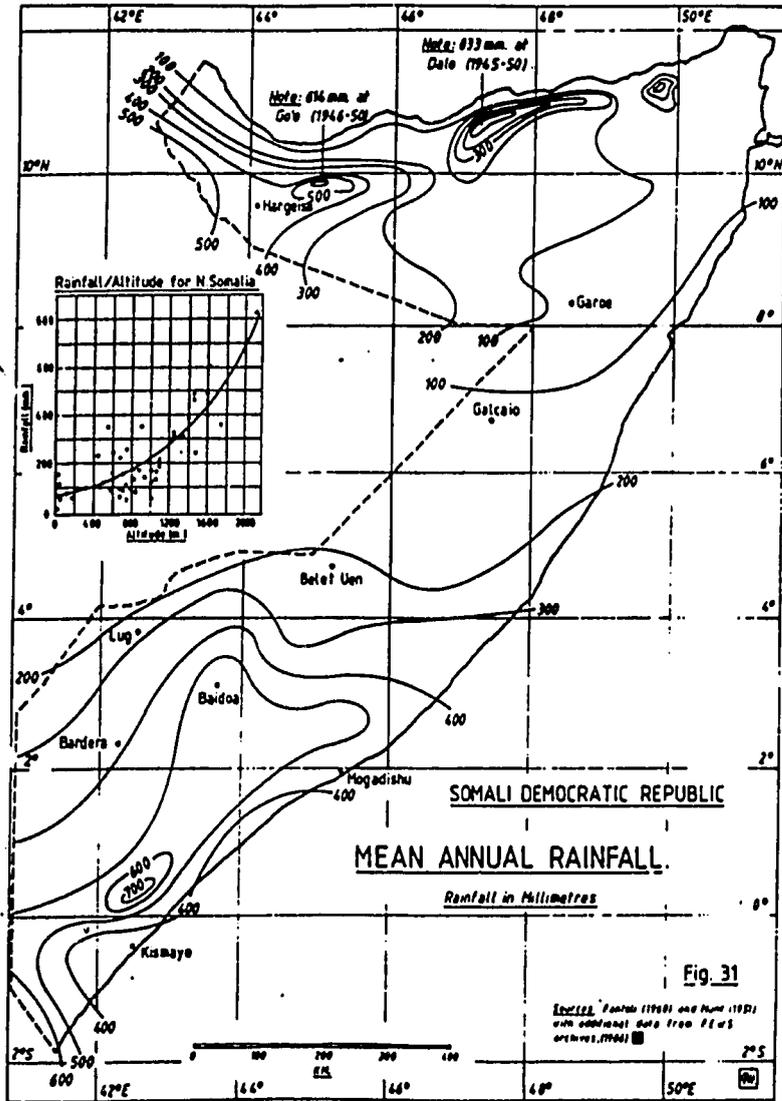
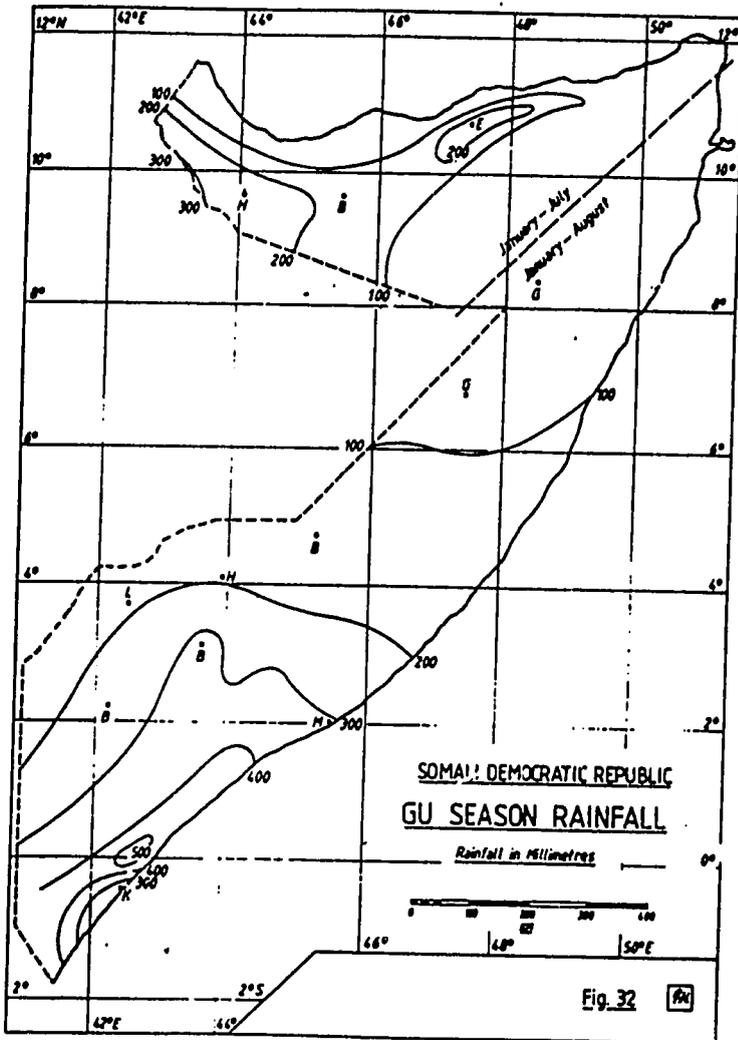


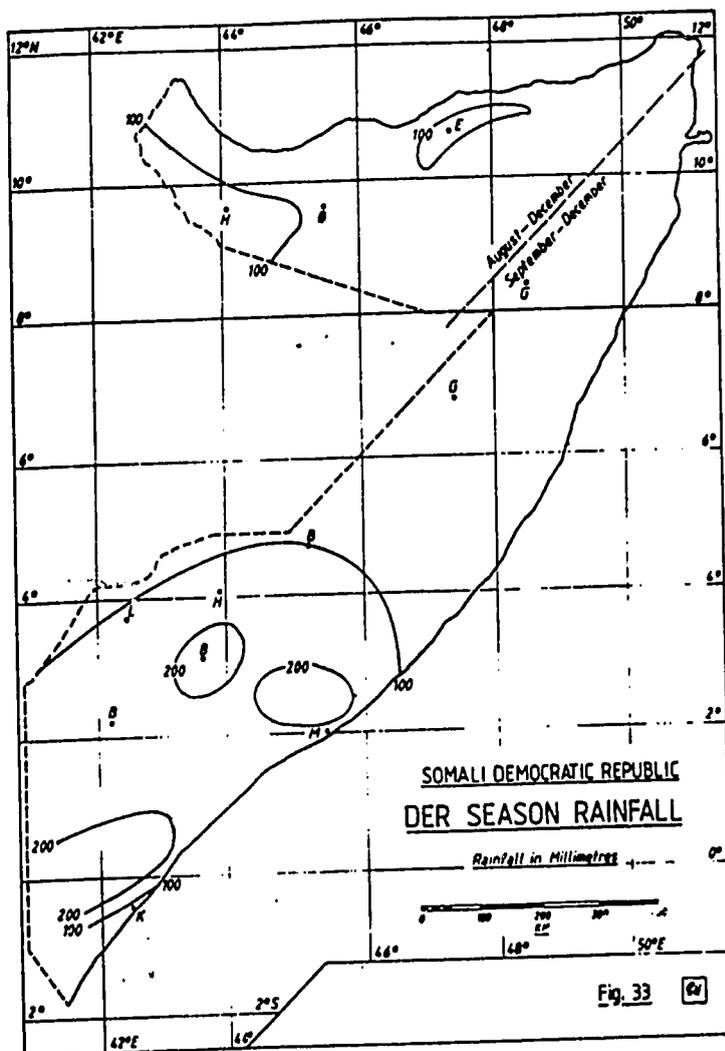
Fig. 31

BASED: FAO (1968) and Harb (1971) with additional data from FEWS archives (1961)

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ANNEXE VI



9

Table 2:
Land Tenure Characteristics, Smallholder Sample, Shalambod Study Area

| | Male Respondents | Female Respondents | Total Respondents |
|--|------------------|--------------------|-------------------|
| Number of Respondents | 44 | 12 | 56 |
| Total Family Size | 9.0 | 6.5 | 8.3 |
| Farm Size Distribution (Farms): ^a | | | |
| 0.0 to 0.99 ha | 6 (14) | 5 (42) | 11 (20) |
| 1.0 to 1.99 ha | 19 (43) | 6 (50) | 25 (45) |
| 2.0 to 4.99 ha | 11 (25) | 1 (8) | 12 (21) |
| 5.0 ha plus | 8 (18) | 0 (0) | 8 (14) |
| Mean Average Farm Size (Hectares) | 2.61 | 0.87 | 2.24 |
| Number of Farms With: ^a | | | |
| 1 parcel | 27 (61) | 11 (92) | 38 (68) |
| 2 parcels | 13 (30) | 1 (8) | 14 (25) |
| 3 or more parcels | 4 (9) | 0 (0) | 4 (7) |
| Average Parcels Per Household | 1.5 | 1.2 | 1.4 |
| Average Years Parcel has been Held ^b | 18.2 | 13.8 | 16.0 |
| Main Parcel was Acquired By: ^{a, b} | | | |
| Inheritance | 6 (14) | 4 (34) | 10 (18) |
| Settled from unclaimed land | 8 (18) | 3 (25) | 11 (20) |
| Bought | 5 (11) | 1 (8) | 6 (11) |
| Allocated by the Govt following failure of the Crash Program | 4 (9) | 3 (25) | 7 (12) |
| Allocated by the Govt after departure of Italian owners | 21 (48) | 1 (8) | 22 (39) |

a. Figures in parentheses are percentages of total respondents in each category.

b. Figures for parcel acquisition refer to the main parcel only, thus data may underestimate the importance of acquisition by transactions.

Sources: Michael Roch, Harry Lemel, John Bruce, and Jon Unruh, An Analysis of Land Tenure and Water Allocation Issues in the Shalambod Irrigation Zone, Somalia, Madison: Land Tenure Center, University of Wisconsin, March 1987.

Table 1:
Land Concentration and Average Land Holdings,
Land Tenure Profile, Shalambood Study Area

| | Number of Farms | Total Area Controlled (ha.) | Avg. Area Per Farm (ha./farm) |
|---------------------------------------|--------------------|-----------------------------------|-------------------------------------|
| Independent Smallholders ^a | | | |
| Surveyed areas with complete data | 1,386 | 1,390 | 1.0 |
| areas with incomplete farm data | | 290 | |
| Smallholder Ag. Cooperatives | | | |
| Ispahaysi cooperative | 800 | 950 | 1.2 |
| Dayax cooperative | 48 | 60 | 1.3 |
| Matrico cooperative | 159 | 158 | 1.0 |
| Large Group Cooperatives | | | |
| National Petroleum cooperative | 2 | 690 | |
| Charcoal cooperative | 2 | 458 | |
| Building and Public Transport coop. | 1 | 50 | |
| Sample average | | | 239.6 |
| Crash Program Areas | | 2,285 | |
| State Farms | | | |
| AFMET Demonstration farm | 1 | 400 | |
| Kamiro, MOA Ag. Strengthening farm | 1 | 100 | |
| Prison farm | 1 | 310 | |
| Police farm | 1 | 60 | |
| Sample average | | | 217.5 |
| Large Private Farms | 14 | 1,342 | 95.9 |
| Total | | 8,543 | |

a. 'Surveyed' means that land areas were verified by data collected by either: (a) the Land Tenure Center; (b) Tippetts, Abbott, McCarthy and Stratton, "Genale Irrigation Rehabilitation Project: Feasibility Study, Annex I, Natural and Human Resources," Washington, September 1986; or (c) Richard McGowan, Larry Johnston, Alfred S. Waldstein, Gus Tillman, John Speed, "Irrigation Water Lifting in the Shabelle Water Management Project," Associates in Rural Development, Burlington, Vermont, 1986. Remaining areas were inferred from maps of the area, but number of farms are unknown.

Source: Michael Roth, Harry Lemel, John Bruce, and Jon Unruh, An Analysis of Land Tenure and Water Allocation Issues in the Shalambood Irrigation Zone, Somalia, Madison: Land Tenure Center, University of Wisconsin, March 1987.