



EMERGENCY LOGISTICAL OPERATION

(for containment of the smallpox epidemic in Somalia)

by

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BACKGROUND

In the spring of 1977 the World Health Organization Smallpox Eradication Programme was faced with unexpected and extensive foci of smallpox in Somalia. It was initially reported that cases were only occurring in the capital city of Mogadishu but during March and April a joint WHO/national investigation team discovered widespread outbreaks amongst nomadic and rural village populations. With this discovery came the mutual decision between WHO and Somalia to quickly institute a full-scale eradication campaign to interrupt smallpox transmission as rapidly as possible. However, at that time a shortage of vehicles and material supplies prevented proper containment of known outbreaks - let alone any search of northern regions. At least 16 vehicles, spare parts, radios, and related supplies were needed immediately to bring the Smallpox Programme up to an effective operation level.

These requirements were fulfilled with collaborative efforts by the Somalia Government, international agencies and donor countries in less than one month. This note presents the process used in meeting the emergency requirements.

IDENTIFICATION OF THE PROBLEMS

There were two main problems encountered in meeting the critical programme logistical needs: first, emergency funding was necessary for the purchase and delivery of the needed supplies, and second, acquisition and rapid delivery of the vehicles and supplies. While both problems were interrelated during the ensuing emergency operation, each problem was unique and will be discussed separately.

Funding

The cost of providing this material support was estimated at over US\$ 400 000, none of which was available from the existing WHO smallpox budget.

On 16 May Emergency Relief Operations (ERO) at WHO advised the headquarters smallpox staff that if the smallpox epidemic in Somalia was recognized by the United Nations Disaster Relief Office (UNDRO) as a "disaster" beyond the resources and ability of Somalia to control, considerable assistance could be expected quickly from a variety of donors. Representatives from several foreign missions in Geneva concurred with the ERO suggestion and indicated their governments could be receptive to an UNDRO appeal for smallpox. This information was given by cable to the Somalia Government and on 18 May the Somalia Minister of Health issued a formal appeal through WHO to UNDRO which included a request for 16 vehicles, spare parts, and airlifting them to Somalia.

On 19 May, ERO forwarded to UNDRO Somalia's appeal for emergency assistance, and simultaneously, requested further information from the Smallpox Programme staff in Somalia. First, they were requested to consult with the United Nations Development Programme (UNDP)

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Resident Representative on all items needed, and second, to confirm that all local resources which might meet at least part of the required assistance had been exhausted. UNDRO's primary prerequisite in accepting the coordinating role in this operation was having a credible basis upon which to approach potential donors and sufficient background information with which to answer donor queries.

Appeal to donor countries

Following considerable cable traffic between Geneva and Mogadishu and much consultation with the Somalia Government, the UNDP Resident Representative, Mogadishu, agreed to support the appeal on 23 May and a more detailed list of urgently needed supplies was forwarded to WHO and UNDRO. In answer to UNDRO's requests for verification the Resident Representative confirmed that local military or other governmental resources could not be used and at least 16 additional vehicles and other supplies would have to be brought immediately into the country. On 26 May ERO/WHO again outlined the situation to UNDRO, pointing out the impossibility of Somalia meeting these demands from national resources. On 27 May UNDRO accepted the appeal due to the severity of the epidemic, the unavailability of local resources to control the epidemic, and the urgency of global smallpox eradication and issued an appeal to international donors for support.

Donation

Between 27 May and 3 June cash contributions totalling US\$ 194 250, and in-kind contributions estimated at US\$ 215 500 were received from Canada, the Netherlands, Norway, the League of Red Cross Societies, Sweden and the United Kingdom. Delayed spare parts orders necessitated an additional appeal for funds on 13 June. On 30 June the donation of an additional US\$ 50 000 raised the total value of contributions received through UNDRO to US\$ 459 750.

TABLE 1. DONATIONS

Date WHO notified of contribution	Donor	In kind	Cash	Value or amount in US\$
30.5.77	United Kingdom	3 vehicles from UK 1 airlift via commercial air charter		74 000
1.6.77	Norway		Used to purchase vehicles	9 487
1.6.77	Netherlands		"	64 763
1.6.77	League of Red Cross Societies	Medical supplies and cash for purchase of one Land Rover which was airlifted with the three from the UK		41 500
3.6.77	Canada	Estimated value of 2 RCAF airlifts		100 000
3.6.77	Sweden		Used for purchase of airlift, 1 Land Rover, 100 tyres, 100 tubes, spare parts, 20 batteries, 20 battery chargers, 10 2-way radios, spare parts and other supplies	120 000
30.6.77	Sweden		Cash for spare parts	50 000
				<u>459 750</u>

On 30 May OXFAM, a private non-profit relief organization in England, responded to the UNDRO appeal by offering one diesel Land Rover. WHO was unable to take advantage of the OXFAM offer because of difficulties in coordinating the vehicle's shipment with the other vehicles and because the 16-vehicle need was met with the UNICEF and United Kingdom vehicles.

#### Acquisition and delivery of vehicles and supplies

Land Rover vehicles were indicated for use in Somalia due to parts and repair facility limitations. However, as delivery of these vehicles from the factory in England could have taken over a year and the supply of other available vehicles in countries surrounding Somalia had already been exhausted by the Programme, other sources were investigated. It was discovered that UNICEF maintained an emergency reserve of Land Rovers in Copenhagen. UNICEF responded favourably to WHO's appeal to make 16 vehicles available although only 12 were eventually purchased. The rest of the requirement was fulfilled with three Land Rovers donated by the United Kingdom and one donated by the League of Red Cross Societies.

Since sea-freight of the vehicles once acquired would have been too slow (three months minimum delivery time) the only feasible method of transportation was by air. Also, in May, problems were being encountered in air-freighting supplies to Somalia as the two airlines serving the country had embargoed further shipments for one month. As tons of urgently needed supplies were being purchased and assembled in Europe, their rapid delivery to Somalia became dependent on a special airlift. The emergency operation was ultimately accomplished with four airlifts.

#### Airlift I

The United Kingdom was the first country to respond to the UNDRO appeal by donating three vehicles and airlifting them and the Red Cross vehicle to Somalia. The United Kingdom charter flight originated from Manston Airport in England on 3 June and arrived in Mogadishu on 4 June. The type of aircraft used was a "Stretch Hercules" (C-130) which has the capacity of carrying four long-wheel-base vehicles. An important feature of this aircraft was its self-contained ramp for loading and unloading the vehicles, which facilitated delivery in Mogadishu. Also on this flight were supplies transferred from Geneva to London, including 500 000 doses of vaccine, a long carriage typewriter and 10 000 reward posters. By 7 June the four vehicles had been licensed, insured and despatched to the field. The cost and all arrangements for this airlift were courtesy of the Overseas Development Ministry in the United Kingdom.

#### Airlift II

On Friday afternoon, 3 June, the Canadian Government informed WHO that the Canadian International Development Authority was backing the airlift of six Land Rovers from Copenhagen to Mogadishu with two RCAF "Hercules" aircraft. The regular "Hercules" has room for only three long-wheel-base vehicles. With excellent coordination between UNICEF Copenhagen, the Canadian Mission and the Danish Military, Airlift II departed Denmark on 4 June - only two days after WHO's initial contact with the Canadian Mission in Geneva. Although Airlift II left Denmark on 4 June, complicated international overflight clearances delayed the plane several days in Athens and it finally arrived in Mogadishu on Wednesday, 8 June, with three vehicles.

#### Airlift III

This airlift departed Denmark on Tuesday, 7 June. Since all overflight clearances were obtained in advance, the flight arrived in Mogadishu on Thursday, 9 June, with the other three vehicles. These and the other three vehicles were despatched to the field within two to three days after arrival.

Airlift IV

The remaining six vehicles departed Copenhagen in a chartered DC8 cargo aircraft on Monday, 13 June, and arrived in Mogadishu on Tuesday, 14 June. Utilizing the cash contribution to UNDR0, WHO contracted with a commercial air cargo company to make this shipment at a cost of US\$ 58 000. Additional supplies were assembled in Copenhagen and included in this vehicle shipment. The other supplies included 200 tyres and tubes, photocopier machines with paper, 50 jerry cans, batteries, and battery chargers. The arrival of the remaining six vehicles fulfilled the transportation requirements and operations were immediately intensified in known outbreak areas and initiated in the northern regions.

DISCUSSION

The initial appeal for assistance was issued by the Somalia Government on 18 May and all basic supplies initially requested were in Somalia by 14 June. The total response time was 27 days. It took nine days for UNDR0 to evaluate and issue their formal appeal and 18 additional days to complete the entire operation. In a relatively short period of time, a task that might have otherwise taken many months to accomplish was completed in less than one month. By mid-June smallpox activities were fully operative with 23 WHO epidemiologists and operations officers, 3000 national workers, 50 vehicles, and tons of essential supplies. By the end of June, smallpox incidence had started to decline. By late October active smallpox cases were limited to only two localities under strict surveillance in Southern Somalia.

While it may appear that such an operation is expensive, the effort could actually have produced a long-range cost saving. This is taking into consideration that the completion of the emergency logistical operation made a significant difference between an effective, fully-operative programme hastening interruption of smallpox transmission, and a programme where effective surveillance and containment were not possible.

UNDR0 served as an effective focal point for contributions from donor countries. One practical benefit of working through UNDR0 was that contributions could be immediately obligated for use. Once UNDR0 received a telex confirmation of a donation, they immediately authorized WHO to spend up to the amount indicated. With normal official donations to WHO's Voluntary Fund for Health Promotion, the process from soliciting to actually receiving funds can take from several months to over a year and funds cannot be utilized until the cash is actually on deposit. As the outbreak in Somalia was not expected when the current smallpox budget was drafted, UNDR0's assistance was critical since the programme budget was fully obligated for other activities.

The operation emphasized to the Somalia Government the serious intent of WHO and its Member nations to assist the country. The dramatic nature of the airlift itself with the arrival in Mogadishu of four airplanes between 4 and 14 June carrying 16 vehicles and tons of equipment and supplies had an important effect on the morale of the programme.

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