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LIMITED

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UNITED NATIONS CHILDREN'S FUND

Programme Committee

LEBANON

Recommendation of the Executive Director
for an Apportionment for Continued
Malaria Control

1. In this paper the Administration recommends, subject to the availability of funds, an apportionment to Lebanon of \$6,000 from the Eastern Mediterranean Area allocation for the provision of DDT for the continuation in 1954 of the country-wide malaria control campaign to be carried out along the lines set by a WHO Demonstration and Training Team which worked in the country from September 1951 through December 1953.
2. If this recommendation is approved, it will represent a complement to the previous apportionment in October 1952 of \$8,000 (E/ICEF/R.355) which was made in the form of assistance with DDT to supplement the Government's malaria control work.
3. The recommendation for the previous apportionment, as well as the relevant plan of operations, stipulated ~~(E/ICEF/R.355 Para. 18(b))~~ that the Ministry of Health would make the necessary budgetary provisions for the purchase of the insecticides necessary for the continuation of the campaign in 1954. Because of changes in the country's financial position such provisions could not be made, and the Government has again approached UNICEF for assistance with insecticides for one further year.

The Problem

4. Document E/ICEF/R.355 presented a general picture of the malaria problem in Lebanon. Continued research and surveys have confirmed the variety of causes for malaria in Lebanon, the most conspicuous of which are: the climatic conditions, with a clement temperature and a high humidity particularly favourable

multitude of small rivers with very low rate of flow in summer, water wells and reservoirs preciously kept by mountaineers for their cultivation in terraced highlands, swamps, seasonal lakes and, last but not least, the movements of labourers in the olive gathering season, who move southward from highly malarious regions in northern Lebanon at the very period of transmission. The expanding banana plantations along the coastal strip constitute a new and latently dangerous cause for malaria.

Control Work Undertaken to Date

5. Following the epidemic which flared up in 1943, the local authorities became more conscious of the malaria danger in the country and have tried, in the early years unfortunately in an incomplete manner, to combat the disease mainly by anti-larval work and partial DDT sprayings.

6. At the request of the Lebanese Government, a WHO Malaria Control Demonstration and Training Team started to work in September 1951 and succeeded, before concluding its work in December 1953, to survey thoroughly the whole of the country and train fully competent national teams with whose cooperation they have protected in 1952 and 1953 the 135,000 persons living in malaria infected regions of the country.

7. Outstanding features in the malaria control work as conducted during recent years have been: the introduction of hand spraying in certain areas, the exact delimitation of foci of infection and, in one case, the pinning down of a seat of anopheles which are presenting a dangerous evidence of resistance to DDT. The previously reported substantial reduction in the per capita cost of malaria control (E/ICEF/R.355) has been reaffirmed in the last year.

8. Another illustration of the success of the control work is given by the endemicity statistics from the highly malarious regions of Akkar and Hermel which have respectively shown a drop in spleen index of from 60% to 6% and 10% to 1.7% and in parasitic index from 6% to 0% and from 1% to 0%.

Plan of Operations

9. General - A detailed plan of operations for the continuation of work in the immediate future as well as for coming years has been elaborated by the WHO Malaria Adviser, and, after technical approval from WHO, has been presented to the Government as a working document. In conformity with the recommendations of WHO,

/the Ministry

the Ministry of Health has recently earmarked exclusively for malaria control (salaries, equipment, supplies and maintenance) LL 100,000 out of a total of LL 240,000 budgeted for communicable disease control for 1954. In thus establishing a separate malaria budget, the Government has, for the first time, taken an important step for the recognition of the autonomy of malaria control work (ref. E/ICEF/R.355, Para. 18 (c)).

10. With a view to taking full advantage of the various efforts made in the field of malaria control by the Karagheusian Foundation, the US FOA (Point IV) and UNRWA, the Ministry of Health has recently arranged to bring these agencies together in periodical meetings. During the course of these meetings, information about technical improvements will be exchanged, results compared and, generally, agreement sought on overall strategy.

11. The objective of the plan of operations is the ultimate eradication of malaria from Lebanon within a period estimated at four years (including 1954), through the repetition each year of the survey and protection work done throughout 1952-53 under the WHO Team, and through special complementary measures as developments may require. In this connection, it is noteworthy that a system of case-reporting through the network of provincial health officials already is in operation.

Plan of Action 1954:

(a) Surveys

12. For 1954, the control work will be undertaken as follows: the year-round country-wide survey initiated in December 1953 will be conducted twice for regions of higher endemicity, once for regions with hypo-endemicity and occasionally for regions where infections might be suspected.

(b) Sprayings

13. Spraying operations, covering all malarious areas in the country and directly protecting 135,000 persons, will start in April to be concluded by the end of June and resumed, for the area of Akkar, in the second half of August. This re-spraying covering a portion of the population evaluated at 10,000 - 11,000 persons, is necessitated by the particular endemic conditions of the area, as well as the nature of constructed surfaces.

/(c) Dosage

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14. The methods of spraying will consist, according to the requirements of particular areas, of normal spraying, hand spraying, anti-larval work (in swamps, river banks, wells and reservoirs) and combined spraying and anti-larval work in certain areas.

(d) Chimio-Prophylaxis

15. For the particular region of Lebanon (Arida East) where the anopheles are showing evidence of resistance to DDT, the team, in combined efforts with the local health authorities, will undertake chimio-prophylactic measures as a complement to sprays and anti-larval work.

(e) Organization

16. All operations will be directed from the Malaria Control Centre, located in Beirut which is well-staffed and equipped for the purpose. The spraying will be carried out by 20 units, each consisting of 1 foreman and 4-5 labourers, every 3 units being directed and controlled by 1 supervisor.

(f) Coordination

17. Coordination with anti-malaria work in neighbouring countries will be assured by contact between the Lebanese team and teams of the respective countries, either directly, or through the intermediary of WHO Regional Office.

UNICEF Commitments

18. If this recommendation is approved, UNICEF will provide DDT as follows:

75% wettable powder	8 tons	\$4,300
25% emulsion	6 tons	1,700
	TOTAL:	<u>\$6,000</u>

Target Time Schedule

19. It is hoped that the insecticides from UNICEF can be provided before the start of the spraying season at the end of March 1954.

Government Commitments

20. The Government will provide a separate malaria budget of LL 100,000 for 1954 control programme. This represents a summary of the detailed budget as it has been accepted by the Government subject to ratification by Parliament:

/1. Salaries

1. Salaries(a) Qualified personnel:

(1 malariologist, 2 entomologists, 1 sanitary engineer,
1 public health nurse, 2 sanitary inspectors, 3 insect
collectors, 1 microscopist, 1 designer) LL 35,000

(b) Auxiliaries:

(1 laboratory assistant, 1 secretary, 7 inspectors,
120 foremen and labourers, 5 drivers, 1 mechanic,
2 warehousekeepers) LL 45,000

2. Transport

Petrol, oil, repairs, insurance LL 5,000

3. Replacement of Material

LL 8,000

4. Office

Rent, telephone, postage, etc. LL 3,000

5. Contingencies

LL 1,000

TOTAL LL 100,000

(US \$31,250)

WHO Participation and Technical Approval

21. WHO has given its technical approval to this project. WHO has in the years 1951-1953 provided some \$100,000 for personnel, equipment and insecticides for malaria control work in Lebanon. The WHO-assisted training and demonstration phase has been successfully completed by the end of 1953. WHO Advisers have worked out with the Government the plan for the malaria control in 1954 as described in the above outline and continue to hold a strong interest in its execution accordingly.

Previous Allocations

22. Previous allocations to Lebanon have been as follows:

	<u>Shipped</u>	
	<u>Through 1953</u>	<u>1954 and after</u>
Maternal and Child Welfare	\$ 18,300	\$ 7,700
Anti-Malaria Campaign	6,900	1,100
BCG Campaign	<u>22,100</u>	<u>-</u>
Total	\$ <u>47,300</u>	\$ <u>8,800</u>

/Recommendation

Recommendation

23. The Administration recommends, subject to the availability of funds:
- a) the apportionment of \$6,000 to Lebanon from the Eastern Mediterranean Area allocation for insecticides to continue the anti-malaria campaign through 1954;
 - b) that the Administration be authorized to approve the extension of the plan of operations as outlined above.