

WORLD HEALTH
ORGANIZATIONORGANISATION MONDIALE
DE LA SANTÉMALARIA CONFERENCE FOR WESTERN PACIFIC
AND SOUTH-EAST ASIA REGIONSWHO/Mal/103.5 ✓
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ENGLISH ONLY

The Secretary of the Expert Committee on Malaria has the honour to communicate hereunder the following note:

INFORMATION ON THE MALARIA CONTROL PROGRAMME IN NEPAL

1. Present status of malaria control:
 - 1.1 Recently estimated population of the country about 9,000,000.
 - 1.2 Number of inhabitants living in malarious regions:
 - Low Terai - 4.0 million pop. - Malaria involves 80%
 - Mid Terai - 0.6 million pop. - Malaria involves 100%
 - Hill area - 4.5 million pop. - Malaria involves 10%

About 5.1 million people live in malarious area.
 - 1.3 Estimated cases of malaria per year (1952) - 3,445,000
Estimated deaths from malaria per year (1952) - 38,450 directly and 38,450 indirectly.
Malaria is not notifiable.
 - 1.4 5,000
 - 1.5 Map of Nepal valley attached showing areas protected as demonstration project.
 - 1.6 Attached.
 - 1.7 Spleen rates - November 1952 - 29%
(DDT used - November 1952)
June 1953 - 9%
(DDT used - June 1953)
March 1954 - 4%

Parasite rates not done.

1.8 (a) Demonstration project served purpose of developing national programme in malaria control. Military barracks in areas were free from malaria for first time. Village Development Programme is enhanced.

(b) Private school in areas had full enrolment this year. Buddhist monastery is developing without fear. People have sowed paddy without fears of not being able to harvest it. Numerous requests have come in demanding control over all of Nepal. Land investment has taken new interest in Terai.

2. Organization, methods, and training facilities of the present programme.

2.1 An Insect-borne Disease Control Bureau was created under the Joint Fund in Public Health in the Nepal-American Co-operative Programme. The Bureau is tentatively staffed by a malariologist and office staff. It operates a laboratory and training school in Kathmandu staffed by nine malaria technicians trained at the Malaria Institute of India. The Chief Public Officer of the USOM/Nepal acts as advisor to the group. Foremen and sprayers are trained at the school to operate spray teams in the valley. The Village Development Service co-operates in the programme by having its men trained by the Bureau to do organization work in the villages and volunteer support.

2.2 DDT residual spraying is the only method used at present.

2.2.1 Chloroquine tablets are used by the technicians in treating the ill they find on surveys. All malaria cases as well as those with splenic enlargement are given full therapy. No charge is made. Village Development Workers also distribute chloroquine in the village where they live for suppressive treatment. About 1,500 tablets were distributed in the malarious areas of the Valley in such manner in 1953.

2.3 The Malaria Institute of India trains all supervisory and specialized personnel. A training centre in Kathmandu staffed by malaria technicians train all field personnel. Films, filmstrips, and demonstration equipment at the laboratory provide supplemental aids.

3. Plans for the future.

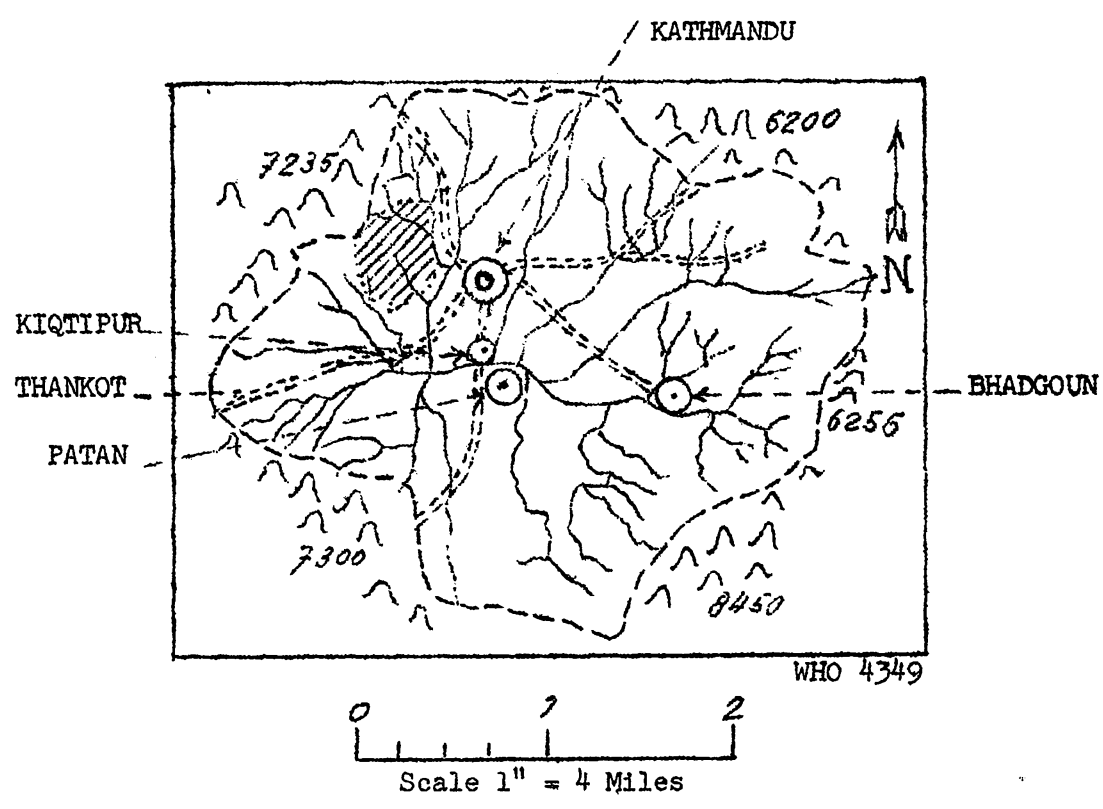
See attached map. At this date, five centres in insect-borne disease control have been started at Biratnagar, Pokhara, Bhairawa, Kathmandu and Hitaura. The centre at Biratnagar will protect about 50,000 people in a 100-square mile area. The centre at Bhairawa will protect 26,000 people in a 100-square mile area. The Pokhara centre is protecting about 150,000 people in the entire valley. The Kathmandu centre is protecting 105,000 this year in the capital valley. The centre at Hitaura is devoting its time to survey although later in 1954, the 10-15,000 people there will be protected by residual DDT. Plans for the year 1955 include the establishment of five more centres in other areas and the rapid expansion of present centres. New centres will be established along the rail heads running from India into the Terai. Each year, five more centres will be established until Nepal is covered by trained personnel spraying residual DDT twice a year.

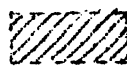
Estimated number of rooms protected this year is 80,000 in the five mentioned centres.

MALARIA CONTROL IN 1953

NEPAL

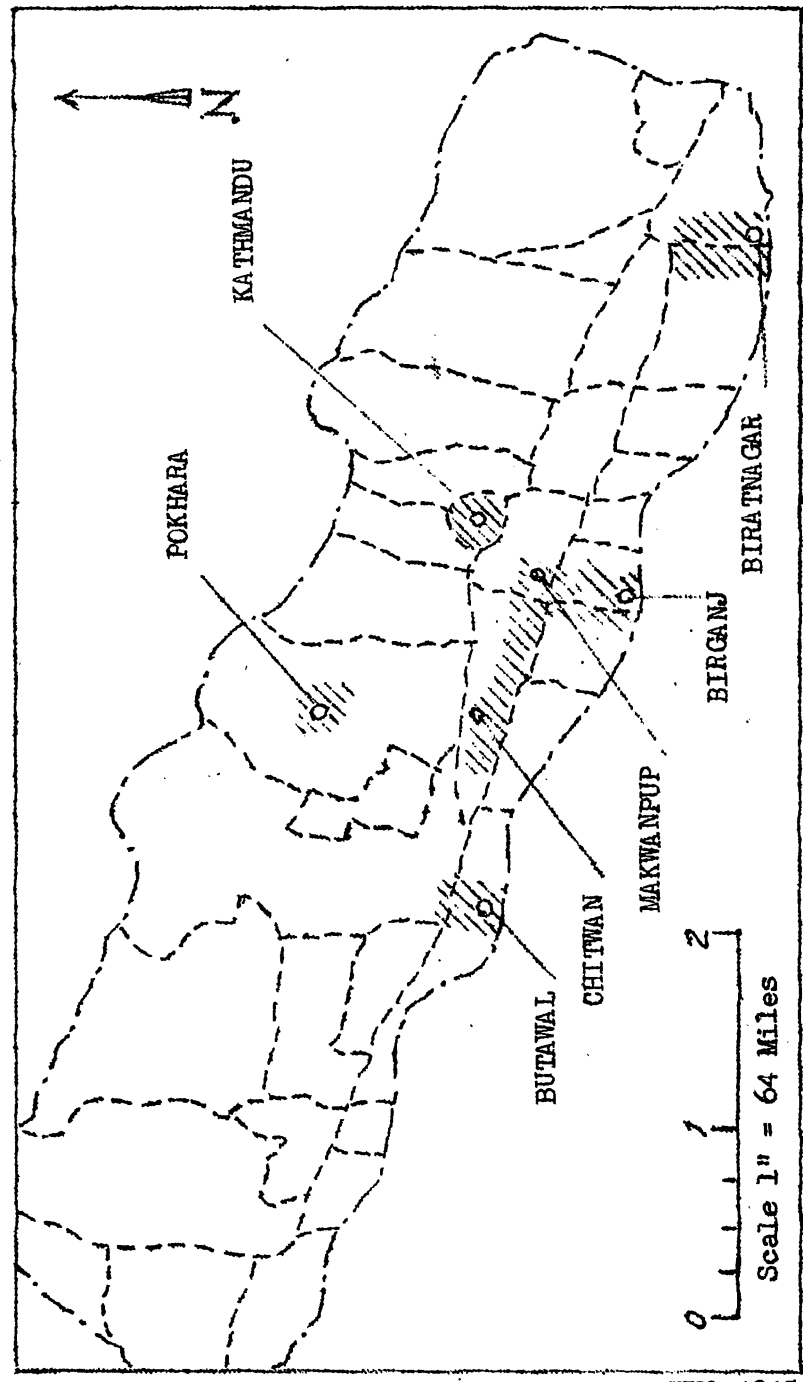
KATHMANDU VALLEY




 Malaria Control in 1953
(Demonstration Project)

MALARIA CONTROL IN 1954

NEPAL



 Malaria Control in 1954

ANNEX I

It would be appreciated if the following data could be obtained using a separate form for each year since residual spraying campaigns began.

YEAR 1953

1. Area of operations (square miles or square km)6....
2. Number of houses and all other structures
sprayed
1st cycle November 1952800....
2nd cycle June 1953800....
3. Population directly protected (i.e. living in
sprayed structures) 5,000....
4. Population protected by other methods of control0....
5. Number of sprayings in the year2....
6. Insecticides and formulations used: total annual
consumption
.....75% Wettable DDT used or 3% water solution - 767 gallons used....
.....
.....
7. Average dose of insecticide per square metre or per square
foot, for each spraying - DDT (in terms of technical grade)200 mgm
8. Types of sprayers¹ used (
.....Hudson compression sprayer - hand-operated.....
.....
9. School and Army barracks only were sprayed.
10. Average superficial area sprayed during each spraying
per inhabitant directly protected (sq.ft. or sq. metres) 1,100 sq.ft.

¹ Compression sprayers: i.e. pre-pressured either by a hand-operated pump incorporated in the apparatus or by independent compressor.

Knapsack sprayer: i.e. operated by continuous pumping.

Annex I

11. Cost of residual spraying operations

11.1	Total cost per year	\$645.00
11.2	Percentage of the total sum expended on insecticides formulations	26%
11.3	Annual cost per capita of the population directly protected by residual spraying	\$0.13