

COMMUNICABLE DISEASES

1.4 Impact of irrigation change on the prevalence of malaria in arid and non-arid parts of Rajasthan

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Commencement: September, 2013 **Duration:** Three Years **Status:** Ongoing

Funding Agency: Department of Science and Technology, Climate Change & Health Network (Extramural)

OBJECTIVES

1. To study the impact of irrigation change on the ecological conditions with respect to vector prevalence and malaria incidences.
2. To determine key factors influencing vector/malaria prevalence and distribution using RS and GIS.

PROGRESS

The project work has been initiated in September, 2013 to study the impact of irrigation change on the ecological conditions with respect to vector prevalence and malaria incidences and to determine key factors influencing vector/malaria prevalence and distribution using RS and GIS. The project staff has been trained to undertake entomological survey and collect information and data for the accomplishment of the project work as per the objectives of the project i.e. collection of adult and immature mosquitoes, incrimination of vectors and carrying out active malaria surveillance i.e. collection of blood slides and examination of blood smears for the detection of malaria parasite infections, besides recording data on different parameters being investigated in the study.

Two ecologically different districts, Jaisalmer and Banswara, have been considered to carry-out the studies and in both the districts the study areas have been identified. In Banswara districts, two areas, Kushalgarh Block, which represent characteristics of rain fed agriculture and Partapur block, characterized with canal irrigated agriculture, have been included. In Kushalgarh block four villages viz., Bhagatpura, Potaliya, Churada and Nathpura have been included in the study based on the past malaria incidence, whereas from Partapur block four villages namely Kheda, Nawagaon, Bhagora and Bodiya have been selected (Fig. 1).



Fig. 1. Map of Banswara district showing study villages

In Jaisalmer district too two study areas i.e. Nachna Block which represent the canal irrigated agriculture and Pokaran Block which represent desert characteristics and has rain-fed agricultural practices. In Nachna block four villages viz., Awai, Madasar, Sankaria and Shekhon ka Tala in Canal irrigated area have been considered for the study, however, in Pokaran block the selected study villages are Ujjala, Mandwa, Beethuwas and Jhalaria (Fig. 2).

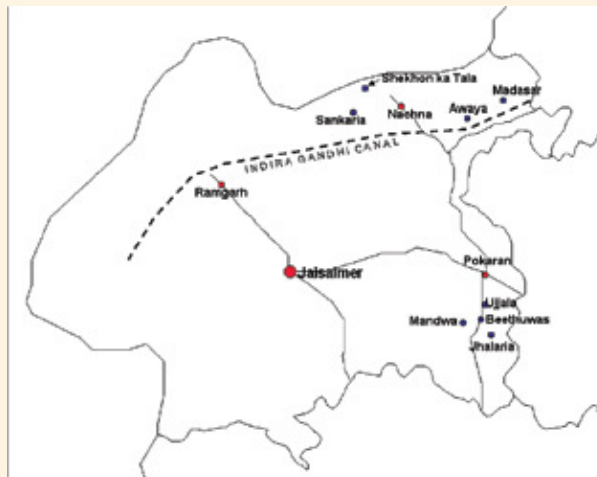


Fig. 2. Map of Jaisalmer district showing study villages

8. EXPECTED OUTCOME:

The study would identify the eco-environmental factors supporting the vector populations as well as malaria prevalence and based on which the key eco-environmental factors will be identified in view to utilize them in future as early warning tool.