I. INTRODUCTION

Environmental changes resulting from the development of irrigation agriculture often create serious public health problems. Malaria, encephalitis, and annoyance by blood-sucking insects are among the more important. Vector-borne diseases such as bilharziasis, as well as typhoid fever, and other diseases related to polluted water (Henderson, 1952; World Health Organ., 1955, 1962a; Stead, 1957; Russell et al., 1963) are also troublesome but not necessarily limited to irrigated areas. Ecological conditions associated with irrigation are often responsible for their occurrence or intensification. Public health problems have frequently restricted agricultural, industrial, and economic development in irrigated areas, particularly in underdeveloped countries (May, 1954; Russell, 1952, 1956). Malaria alone has imposed a great burden of death, illness, and economic loss on the human population of irrigated areas in many parts of the world, and the prevention or control of this disease removes a tremendous barrier to economic and social progress (Russell, 1951).

Irrigation agriculture will play a major role in providing the additional food supplies needed to keep pace with the increasing world population. If maximum benefits are to be derived from existing and future irrigation developments, adequate provision must be made for the prevention and control of public health problems. This requires a mutual understanding of these problems and close cooperation and coordination between the various agencies and groups concerned with irrigation agriculture and public health.

II. VECTOR-BORNE DISEASES AND RELATED PROBLEMS

Many insects of public health importance as well as the snail hosts of bilharziasis are produced in aquatic habitats associated with irrigation. Mosquitoes are by far the most important of these insects. Several species serve as vectors of human diseases such as malaria and encephalitis, and some create public health problems because of their vicious biting habits. Other insects of public health importance that may be produced in habitats associated with irrigation include horse flies and deer flies (Tabanidae), black flies (Simuliidae), and several species of small