

Disease of living style

A case study of parasite disease and rural environment in Pingtung region

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The Kaoping River with its tributaries flows through Kaohsiung City and Pingtung County and empties into the Taiwan Strait at Linyuan. With water supply by Kaoping River, Pingtung region is renowned for its prosperous agricultural production since the 18th century. However, since the 1970s, industrialization and urbanization gradually pollute the water while the production of agriculture continued. According to latest investigation, Before the 1970s, no survey on water quality exist, but data of causations of disease and death may bring some clues to scholars who are interested in knowing the relationship between health and water use on Pingtung region.

Based on contemporary knowledge of diseases pattern, certain type of illness could link to specific causation of living style. As the preliminary study suggests the Kaoping River has been polluted by various forms: human waste, wastewater from piggery, urban rubbish, and industrial hazard etc. All kinds of pollutants cause different public health threat in various time and space. Two stages could be identified. The first stage is agriculture period between 1920s and mid-60s while the second shows more impacts of industrialization and urbanization. The features of two stages are basically confirmed by measuring the public health data, especially calculation of epidemiological patterns. On the first stage, high morbidity and mortality rates of gastrointestinal diseases imply the major pollutants was bio-waste or water-borne parasite. The phenomena also support the main lifestyle on the region was still agriculture-oriented. Certain disease such as Amebiasis and Clonorchis Sinesis are zoonosis indicate the distance between farmer and livestock was very close, especially in the cycle of food-chain. They both lived close to the river for water but polluted in return. The debate of water pollution in the Kaoping River rise since late-1960s, and in the 70s the debate evolves to series of violent demonstrations till the early 21st century. During this period, the deterioration of water quality highly linked to chemical pollutants after the piggeries retreated in the 1970s.

By taking health and disease information, the study estimates the evolution of water quality of Kaoping River and people's lifestyle along the basin. To the

preliminary result, the study demonstrates the features and time of water deterioration in two stages and plots the possible location where the problem started.