

had already spent twelve years away from their homes, because the first tests took place in the summer of 1946, one in the air and the other under water. Research teams sent to the atoll by the AEC in 1964 and 1967 observed that the islands had made a striking recovery. Vegetation had sprung up on the islands where the soil had not been disturbed, and populations of birds, fish and animals were back to the levels common before the explosions. Rat populations, which had passed through many generations, showed no abnormalities when dissected, and seemed to be reproducing at a rate limited only by the supply of food. Environmental radioactivity was low enough for habitation, except on a few of the smaller test islands.

But the expeditions also encountered less encouraging evidence. The coconut trees on all the islands had suffered severely and, although a few coconuts had survived on the more distant islands, it was thought that intensive planting would be necessary before the island economy based on coconuts could again become viable. The land crabs, which feed on coconuts, had accumulated large quantities of strontium 90 in their shells. Although the shell is periodically sloughed off, this did not produce any reduction in the amounts of strontium 90, because it was later observed that the crab eats its shell piece by piece after it falls off. In this way, the strontium is allowed to accumulate.

Because of this, the AEC recommends that if people are to go back to Bikini, the population of land crabs should be sharply reduced. Scrap metal from islands near to the test sites should be removed, and any village construction on Bikini Island should involve covering the site with coral rock. (The AEC points out that this is a local custom, in any case.) And, because the greater part of the radioactivity which fell on the atoll still remains on the top of the soil, fruit trees should only be planted after the top two inches of soil have been removed. In the first place, settlement should be allowed only on the islands of the Bikini-Eneu complex, and the first villages and agriculture should be set up on Eneu. After a year of inhabitation, the body burdens of caesium 137 and strontium 90 should be determined, and special efforts should be made to see that the Bikinians get a balanced diet—including, says the AEC, powdered milk to reduce the calcium deficiency which is typical of Bikini residents. When calcium is absent, the body is more ready to take up strontium 90. All this may make life on Bikini rather more hectic than it used to be, but the Bikinians will doubtless be glad to have the chance of going back all the same.

DEMOGRAPHY

Immortality Postponed

THE rapid decline in mortality which occurred early in this century in many countries has now ceased and in some cases the crude death rate has actually increased. A number of recent studies of this phenomenon in the United States, Chile, England and Wales make it possible to try to identify the common characteristics, and a fourth study has just been published on Japan (*Recent Retardation of Mortality Trends in Japan*, US Public Health Service Publication No. 1000, 35 cents). After the Second World War, mortality in

Europe and the Americas declined until about 1950, when retardation of the earlier mortality decline began to show up. In the United States, this trend was observed in infants and most other age groups, both white and non-white; it is suspected that there may be a specific underlying cause. In Chile, there has been a significant retardation in the middle-aged groups of men; this was attributed to infectious diseases because of inadequate public health services. In England and Wales, on the other hand, a retardation of the mortality trend between 1955 and 1961 was attributed to an imbalance between increase of coronary artery disease and diminishing improvements in infectious and respiratory diseases.

In Japan, a study of the mortality figures for certain diseases between the years 1900 and 1963 indicates that the regular rate of mortality decline changed abruptly about 1955 and was especially noticeable in the middle-aged group of males throughout the country, mainly because of infectious diseases; the retardation index was noticeably high for pneumonia, bronchitis, enteritis and nephritis. Possible factors influencing this retardation trend include virus mutation, radiation, cigarette smoking, antibiotics and other drugs, changes in diet, air pollution, urbanization and public health activities. Most of these are of doubtful significance but need to be investigated more fully before being eliminated. It is certainly true that a generally decreasing trend of bacterial and viral infections showed a breaking point about 1953-55 and the increase in resistant bacterial strains seems to have become more rapid since 1955. These factors may be essential for the sudden retardation of mortality, but more work certainly needs to be done.

FOREIGN AID

Change but No Change

DESPITE another grim year for overseas aid, the Overseas Development Institute has contrived to produce a reasonably cheerful annual report. In his last report as director, William Clark (who has now joined the World Bank) writes that British devaluation has meant a cut in British aid of between 8 and 10 per cent. A ceiling of £205 million has been imposed for the next two years. In the United States, the smallest aid Bill since the war was reduced still further by Congress. The UNCTAD meeting in New Delhi was generally regarded as a failure, at least by the countries which were supposed to benefit from it. There is a climate of disillusionment with aid, just at the moment when the need for it is increasing. Unless the Pope's encyclical on birth control has jolted people into a realization of what is at stake, organizations like ODI face several years in which they are likely to face criticism and even hostility.

Mr Clark hopes that this attitude is not shared by the younger generation—"which has never lost an empire, nor yet failed to find a role in the world"—and the ODI has therefore determined to go ahead as before. The report argues that the "conspicuous loss of momentum in the advanced countries' efforts to help the poorer two-thirds of the world is partly attributable to public misunderstanding", an argument in favour of intensifying the efforts to explain the issues to the public. The staff of the ODI have