

forting that the steady rise of agricultural productivity in the temperate zone of the Northern Hemisphere shows no sign of coming to a halt. For at least some time to come, the war against famine will have to be fought on the prairies of North America. In the long run, countries now undeveloped may practise novel forms of agriculture—or even buy wheat by exporting manufactured goods. At this stage there is no knowing just what will happen, but disaster and a repetition of familiar patterns are not the only possibilities.

MEDICAL RESEARCH

THE Medical Research Council is one of the most successful of the research councils responsible for the support of research in Britain, and the annual report for 1965-66 now published (see page 1009, this issue) is another cheerful story. Good works continue. New projects are being started, and promise to fill glaring gaps in the pattern of what is being done. The clinical research centre now being built will obviously do well, for example, even if it is not entirely clear why it should not have been created by the development of a teaching hospital.

Why does the Medical Research Council persist in getting such good value for its money? Much probably depends on the way in which the council organizes its grant giving. More than half the annual budget last year was spent on supporting what are called the research units—groups of people ranging in size from a handful to a hundred—who are employed full-time by the council, kept supplied from the same source with equipment, yet free to play a full part in the intellectual life of the university or hospital in which they are sited. Although units like these are not unknown in other fields, the Medical Research Council has made by far the fullest use of them. A part of the reason for this, no doubt, is that it is often easier to specify a field of study than a particular objective, but the council has also been shamelessly but successfully living by the principle that it is better to back a man than a problem. Obviously there is a model here for other research councils to study if not to copy.

That said, however, it should be recognized that there may be snags. One is that the council may not be able to spend as much as it should on the support of research by young graduates, medically qualified and otherwise. Another is that the first charge on the council's budget is bound to be the salary bill of its full-time staff, not to mention their pension rights and other needs. An awkward consequence is that the budget must be less flexible than its total size would indicate. There is possibly a case for saying that the council would be happier with more elbow room within the framework of its budget. And there is certainly a case for asking that in future annual reports the council should substitute for the scant half-dozen pages now devoted to administrative matters a thorough discussion of the evolution of ways in its policies on these and other matters.

NEWS AND VIEWS

Fresh Thoughts on Water

PRESIDENT KENNEDY said that whoever solved the problems of water deserved two Nobel prizes—one for science, one for peace. The committee of the National Academy of Sciences which has just taken a cold look at water resources in the United States will certainly not get the latter for its frank analysis of what is wrong with American policies for managing water. The trouble is, in brief, the "quick fix" approach. Enthusiasts spring up, hot to build desaturation plants, hydroelectric dams near the Grand Canyon or—the champion here is President Johnson himself—clean whole rivers such as the Potomac from top to toe. Each of these plans, the N.A.S. report says flatly, is short-sighted. What is needed is intelligence and an end to rigid, departmental thinking.

There is no question that it is possible to make drinking water by removing the salt from sea water. But it is expensive and, once elaborate installations are set up for the purpose, little thought is given to alternatives which may be cheaper. The President's plan to purify the Potomac is fine—but prepared without sufficient attention to the changes that its proposals would bring to the soil, plant and animal and even human life along the sweep of the river. And, while conservationists see no lack of arguments for opposing the proposed dams on the Colorado River, the N.A.S. report makes a point that will hurt the advocates of water power; not enough thought has been given to the possibility that hydroelectricity will lose its value in the years to come.

In general, the committee found that the United States would have enough water to drink for the rest of the century, even though regional scarcities will persist. But there are big gaps in research into water resources, and the committee hopes that these will be filled. More should be known about the ways in which the environment—particularly when it is overlaid with tarmac—affects water. New techniques should be developed for treating waste water and, above all, people should start thinking about how to tap the underground supplies which constitute 97 per cent of the world's usable water.

Nothing the N.A.S. report said will dampen spirits in California, where mutual congratulations are being exchanged over the completion of a complicated agreement between the federal government, local authorities in Los Angeles and private electricity companies to build the world's largest desalination plant. A quick fix could not be applied in a better spot than parched populous southern California, in a constant wrangle with neighbouring states to use their water. (It now has eyes on the Columbia River far to the north-west.) The Los Angeles station, to be built on a man-made island offshore, will use nuclear power and do double duty, generating 1.8 million kWh of electricity a day while refining 150 million gallons of sea water as well, and at a cost which, if estimates are borne out in practice, will be as little as 23 cents a thousand gallons. The plant will cost \$438 million, of which the federal share will be \$72 million, and should go into action in 1971.