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Deserts
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think it is a fallacy that deserts are man-made. Some say, "If man made the desert, man can fix it." We cannot fix it; we have to learn to live with it. A third of our earth mass is arid lands; 20 percent of it is barren desert. It is huge and unutilized, and that is very important. I am a proponent of settlements in the desert to lessen population pressures on the cities. But we must live with the desert and within its resources and not plant rice as they did in the Kharga Oasis of Egypt, where each pound of rice requires the equivalent of 6,000 pounds of water. We can make small areas green for settlements, tourism and industry. Many oases can be rangelands; if date and fruit trees are planted, grass will grow under them. For that you need very little water.

There is historic evidence in the desert—rainfall, lakes, valleys wider than the Nile Valley, and animal remains—that tell us our weather was completely different 6,000 years ago. Long before intensive farming or industries, a whole belt about 30 degrees north and another 30 degrees south of the equator started drying up. Meteorologists say it is a natural process of change. The desert today is part of the natural environment of the earth and has been for at least tens of thousands of years.

If we are going to do anything about it, we have to better understand it: why it expands and the rates of expansion.

The desert is a natural phenomenon, but our misuse of it can have a disastrous effect in increasing the desert area. We abuse the land with over-irrigation which leads to salinization; we interfere with the natural contours of the land, exposing soil to wind; the removal of trees for use as firewood exposes the ground; and too often we plant the wrong crops. This puts many areas in peril.

Our awareness of this problem has grown phenomenally over the past decade. The layman now knows about desertification, and international programs have begun. But some local specialists are not aware of the dimensions of the problem, for if they consider it only locally and not regionally significant, the results can be disastrous.

The missing link is a good basic understanding of the terrain itself and the geological processes that act on the terrain. By a freak of luck, the planet Mars is providing some answrs. It is all desert and has the same kinds of features as Earth. As the photos of Mars are interpreted, it suggests what may happen to us in the future.

Even so, not enough research is being done. There should be more experimentation on making the desert habitable. The knowledge just is not there to tell us which way to go. I think lots of small local programs can be instituted right away like the Israeli settlements. They are successful because they are small and use all the natural resources of a given region. The Australians have done even more, a small piece at a time. →

Research projects must be initiated in all desert countries. International agencies can make sure the flow of information and experience is provided to everybody—on unsuccessful as well as successful programs. I would like to see just once a UN report say a $2 million project is down the drain and should never be done again. At UNEP conferences what government representative will say, "We messed up."

What we need is a real Desert Information System with a central computer that has everything everybody has ever done. Along with it we need a network of automated meteorological data collection centers in the open desert, not in the cities. They would transmit information to satellites to make it available to the whole world. These stations could be relatively cheap—maybe $10,000—solar powered and wholly automatic. The first and only one so far is in Flagstaff, Arizona. As people become more aware of the desert environment and its uniqueness and the scanty information we have, the better chances are that this network will work out.

We can project the desert's growth only if we are able to say how it expanded and contracted in the past. It is a matter of scientific honesty. Do we really know what we are taling about? The answer is no. We need more research and information so we can make the right choices.

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