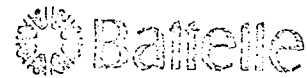


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Dr. Joseph Maher
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Dear Dr. Maher:

Issues pertaining to the current relocation and rehabilitation program of the Marshall Islands has been brought to my attention by Dr. John Hébert at HARC. He suggested that I respond to you concerning my thoughts about potential problems concerning ERDA's current and continued involvement in the rehabilitation effort.

As I understand it, three federal agencies (i.e., United States Energy Research and Development Administration, United States Department of Defense, and the United States Department of the Interior) are participating in the rehabilitation, specifically the rehabilitation of Enewetak, and in general the adjoining islands and atolls in the Marshall Island chain. ERDA's main responsibilities consist of providing assistance and advice to Defense and Interior concerning safety levels of radioactive soil and finding a disposal solution for contamination soil. Again, I understand that steps have been taken by ERDA to communicate risks of contamination to Marshall Islanders. Latter efforts have been assessed as being largely unsatisfactory.

The processes and consequences of evacuation and removal of persons from their homelands have concerned me for some time. Invariably, the culture and lifestyle of the relocatees are dramatically altered. Home and work patterns must be adjusted to accommodate existing lifestyles in the new community. Often value conflicts emerge between residents and relocatees adding to the complications. Issues of this kind are complex, and frankly, not well understood by social scientists. The status of the Marshall Islanders appears to fit this pattern and I fully expect adjustment problems to occur.

Rehabilitation of Enewetak, Bikini, Japtan and some of the other atolls in the Marshall Island chain is unique since there are risks associated with the move. This risk introduces new considerations to the issue. Fortunately, for social science, there are some examples available that could provide some insight. One possibility is to consider why people would want to return to or rebuild in a high risk environment. Some examples of this follow:

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1. Californians continue to build homes on seismic faults or live in areas highly prone to floods and mudslides;
2. Residents in western Washington and central Colorado rebuilt their homes in flood plains;
3. Coal miners continue to work in mines that have a history of collapsing; and
4. Kansans, Oklahomans, and Texans rebuild farms, and homes in areas frequently hit by tornados.

Floods, tornados, earthquakes and mine cave-ins are visible and real hazards. People can see the effects almost immediately after they occur. Radioactive contamination produces slow changes in metabolism, cell growth and respiratory areas of humans. There are exceptions to the nature of the effects, of course. Nevertheless, the Marshall Islanders, like many underdeveloped societies, need to experience and visualize a risk before norms and mores can be built into their culture. That hasn't happened and until effective procedures are developed to realistically communicate the risks, I anticipate communication and educational problems to persist.

In itself, communicating technology to an underdeveloped cultural group is a complicated and delicate process; perhaps more thought and planning should be devoted to communicating the nature of energy-related technologies to groups of this kind. In addition to this immediate problem, an assortment of related issues comes to mind as follows:

1. Potential conflicts and adjustment problems of inhabitants generated by the rehabilitation process;
2. Consequence of possible radioactive contamination; and
3. Agency commitment to monitor and assess rehabilitation.

Thirty years ago, certain Marshall Islanders were relocated to other atolls and islands to make room for federal government testing of nuclear munitions. Most of the Enewetakese were relocated to Kili, located approximately 650 miles southeast of Enewetak. Kili is an island without beaches or reefs where the local economy is based on limited agriculture. Hence, fishing skills of the Enewetakese were not necessary. As a result most Enewetakese have all but lost these skills because of generation gaps and disuse. Moreover, many relocated Enewetakese have intermarried with Kilians and other island

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groups, established families and a way of life largely different from what would be required on Enewetak.

Even though the Enewetakese have expressed strong desires to relocate, past circumstances and some factual information prompts one to question commitments to return. The Department of the Interior has already constructed a few homes on the atolls and I understand that their style and structure have been disapproved by certain Enewetakese.

The soil on Enewetak is low in nutrients making agriculture a nonviable form of subsistence. A return to fishing is almost a necessity. Yet, as pointed out above, few know or remember the skills required. The period of transition for the Enewetakese will indeed be troublesome. I think the Enewetak know this and are somewhat confused about the consequences of their desire to return. I'm certain they have been told that they should reclaim their homeland from the federal government since it was theirs in the beginning.

The experiences of thirty years ago suggest some inconsistencies. For example, families who never experienced life on the atoll will experience similar kinds of adjustment problems as their parents did not so long ago. In fact, those adjustment problems are well known since the experiences have been passed on from one generation to the other. Moreover, many are still living who vividly recall the relocation and the problems they and others experienced. Hence, given this information, one would wonder why over 60 percent of the Enewetakese who never lived on the atoll would want to give up present lifestyles and attempt to return to a way of life long forgotten or never experienced.

The relocation of people to an area once used as a nuclear bomb test site has far-reaching implications. On the one hand, if the Enewetakese return and manage to survive the effects of contamination much can be said about the generalizability of this to future groups caught in similar circumstances. It suggests that people can be evacuated from an area where the danger of radiation contamination is high and then return thirty years later to resume daily living patterns.

For the moment, consider the tormenting thought that the Enewetak relocatees do become negatively affected by radioactive levels and have to be moved to other atolls again. The consequences could be alarming and have the potential of focusing public attention. Most assuredly, public resistance to nuclear fuel reactors would increase and intensify at an alarming rate and probably bring construction to a halt.

Whatever the outcome, certain humanitarian groups will be watching and closely monitoring the relocation efforts.

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I would recommend that ERDA assume a more proactive role in the total effort. It's highly unlikely that POD and DOI will do more than carry out their immediate responsibilities. Continued monitoring of radioactive levels is important as are continued efforts to communicate risks to Marshall Islanders. Moreover, I would strongly urge ERDA to consider monitoring the adjustment and interaction processes of island groups. From my experience in working with American Indian groups involved in similar relocation efforts, I can assure you that the transition will not be a smooth one. The following questions are but a partial list of issues that could be addressed:

1. What steps will be taken to assist the Islanders to eventually develop a self-supporting economy?
2. What relearning of former methods of subsistence will occur and what will be their effect on the quality of life?
3. What norms and sanctions will emerge that will prevent Islanders from frequenting off-limit areas? How will they be enforced?
4. To what extent have western ways affected the culture of the people?
5. Will adoption of western ways introduce forms of social deviancy, such as alcoholism, delinquency, unemployment, depression, etc.?
6. What prevention measures can be developed to reduce the possible emergence of social deviancy?
7. What adjustments will be made by Islanders and how will they effect daily living patterns?
8. What does the future hold for an island group isolated from the main flow of economic activity?
9. What are the social, educational, employment needs, etc. of Islanders?

Battelle Human Affairs Research Centers here in Seattle has competent staff sensitive to the issues just raised and can plan a long-term program to investigate a number of these issues. The tasks demand an interdisciplinary approach where staff scientists representing a broad range of social and behavioral science expertise function as a team.

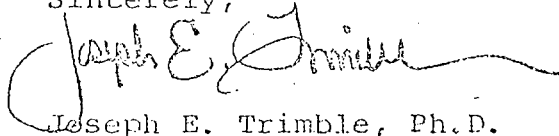
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Perhaps for the first time in history, science has an opportunity to systematically investigate the process associated with a society returning to their homeland where the risks are unusually high. The significance of findings can have long-term effects on understanding rehabilitation efforts.

I have a number of additional thoughts and ideas on the subject and would welcome the opportunity to discuss these with you in the immediate future. In the meantime, I hope the bits of information I have shared with you have been helpful.

Sincerely,



Joseph E. Trimble, Ph.D.
Research Scientist
Social Change Study Center

JET:mr