Churches: a model for community water supply projects in Micronesia?

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Introduction

Newcomers to Chuuk are often surprised that there can be water shortages in an area that experiences in excess of one hundred inches of rain per year. They logically wonder how this is possible if large cities elsewhere in the world manage to survive quite comfortably with only a small fraction of this rainfall. After living on Chuuk for a while, they might discover that there are numerous springs in the mountains, some of which appear to flow all year round. Again, very logically, they conclude that it will be a simple matter to develop a spring and pipe water from it to a tank located in a coastal village. Residents in the vicinity of the tank would have a convenient and reliable source of safe water and problems would be solved! The more ambitious of these projects call for a distribution system that feeds water to individual homes. Indoor plumbing. This is the thought process behind the "classic" water supply project. It is all very logical. Unfortunately, these projects rarely, if ever, work out as planned. This is the sad lesson that has been learned not only in Chuuk but elsewhere in Micronesia and throughout the undeveloped areas of the world.

The implicit assumption appears to be that the government will take care of itself or that government and the government will take care of it. This is a fallacy. Even if one were to accept the premise that government is the solution, one would have to ask oneself whether government would work any better in the rural areas of Chuuk. After all, the government is responsible for the maintenance and operation of the system.

Vandalism may occur (from a drunkard, malicious youth, a landowner feeling that he was not compensated properly, etc.). Water supply systems that use PVC pipe are most vulnerable to vandalism as the pipe is readily damaged by rocks, machinery, fine, etc.

7. The system deteriorates or a part breaks due to lack of preventative maintenance, inappropriate design, or just plain rough use. Inevitably, the system needs service.

8. No-one is available to repair the system and/or no supplies or spare parts are available for making the repairs.

9. The system stops functioning or it produces less and less water. Ultimately, it is abandoned.

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The churches as a model

As one tours the outer islands of Chuuk, one is hard put to find projects that have survived for a long time. School buildings, dispensaries, even fishing boats and pickup trucks, all are victims of the same maladies that afflict our classic water supply system. The problems encountered with water projects are not only the same as the problems encountered with other projects. For better or worse, water projects have simply been studied more on a worldwide basis.

However, as a person continues his tour of the outer islands, he notices an exceptional project that has, in fact, survived for a very long time: the church. They not only address a physical need, but a non-physical one as well: the church. They not only address a physical need, but a non-physical one as well. The church has been a part of the culture: they not only address spiritual needs, they perform social functions, play a role in births, marriages, and deaths, and influence numerous other aspects of daily life.

Let's take a brief look at the history of the churches in Micronesia as well as the way they operate today and see what we can learn from their examples:

1. Initially, a dedicated leader resided at the project site and lived what he was advocating. This person became a permanent member of the community. He or she must be an example to prove that what he is advocating is necessary. Without an example, it may not attract the leadership needed to see the project through.

2. Education: This leader must be able to educate and reeducate the population he is serving concerning the relation of safe water supplies to physical health. The educational program must be directed at men, women, and children. It cannot be too much education. A water education program is not a success until it is a part of the culture.

3. Management: While the leader described above is responsible for setting an example and for providing an educational program, some sort of management structure (such as a water committee) is required for project implementation, operation, and maintenance. This includes the role of a local caretaker to operate and maintain the water supply system, stocking spare parts required, and collecting a user fee to fund these activities. The leader may play an important role on the committee. However, it is the committee that brings about broader community participation in a project. The committee is an ongoing entity for the life of the project.

4. Facilities Construction: Facilities should be constructed with unpaid local labor and every effort made to generate local funding for the purchase of construction supplies. Among other things, this prevents the technology chosen for use in the project should be at a level that can be operated and maintained on the local level.

How does our classic project fare in light of these guidelines? The first problem might be lack of leadership. The newcomer, perhaps a Peace Corps worker, is not really a permanent member of the community. He may be able to serve as an example during his brief stay on an island, but this is not long enough. Likewise, may be able to provide educational services. But, two years of them are not enough either. If these guidelines for leadership and education are valid, it is easy to see why the classic water project probably hasn't been too successful. There is little difference between these church-based guidelines and the previously listed guidelines insofar as management and construction of the water facilities is concerned.

Conclusion

There are similarities and differences between the two sets of water project guidelines. They are summarized below:

<table>
<thead>
<tr>
<th>Type of Guidelines</th>
<th>International</th>
<th>Church</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Community</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Education</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Sensitivity to culture</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Local management</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>User fee</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Local construction</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Local operation and maintenance</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

The "No" in the church model deals with sensitivity to the need for change. The church model does not have an "No" in the "Education" category. The "No" in the International model deals with leadership. This does not imply that no leadership is necessary. Rather, it implies that leadership is extremely important in the church model.

Finally, I must admit that the proposed guidelines are very hard to follow. I have never followed them completely on any project I have been responsible for. However, I believe they are worthy of serious consideration. I will certainly be attentive to them in the future.

References