

Comanagement of Natural Resources

LOCAL LEARNING FOR POVERTY REDUCTION

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Researchers find new ways to resolve old problems in Lebanon

Communication is the key to conflict resolution

A research team in Lebanon's remote Arsaal region used an updated version of the traditional tribal council, combined with modern technologies such as videos and GIS surveys, to resolve long-standing conflicts among land users. The results have had an impact on local government across the region and served as a model for a new applied research unit at the American University of Beirut.

The sparsely populated rural watershed of Arsaal in the northeast corner of Lebanon is home to about 36 000 people, 80 000 sheep and goats, and 2 million fruit trees. The rugged, mountainous terrain is also dotted with limestone quarries that provide facing stone for the building boom in Beirut, just a half-day's drive away. It's a mix that brought conflict and near chaos to this region that, despite being so close to the capital, is isolated in both political and religious terms.

In the shadow of the Anti Lebanon Mountains that form a border with Syria, the Arsaal is a land of steep slopes, rocky outcrops and poor soils. With an average annual rainfall of just 300 mm, the Arsaal is marginal for most forms of agriculture. For centuries, goats, sheep, and low-input cereal agriculture

were the main sources of income. This pastoral way of life relied on clan-based relationships between large and small herders, and on consensus decisions about the use of common pastures. It was a complex system that involved the



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This traditional pastoral system began to break down in the 1950s, however, when a few enterprising farmers discovered that rain-fed fruit trees could provide four times the income for less work than herding sheep and goats, and that there was a ready market for their cherries and apricots in the cities to the south. As newly minted fruit growers enthusiastically planted more and more trees, they also enclosed lands that had previously been regarded as common property. As a result, herders were forced to use marginal and more distant grazing lands, and shortages of fodder became critical, especially in dry years.

The conversion of steep slopes from grazing lands to orchards also contributed to land degradation. With all these changes in a relatively short time, conflict between the pastoralists and the orchardists was inevitable. Indeed, the conflict created by these changes was a major contributor to the dissolution of the Arsaal municipal council in the mid-1960s. It was a time of growing political and military conflict throughout Lebanon, and formal elections would not be held in Arsaal for the next 33 years.

Power vacuum

Taking advantage of the power vacuum created by the collapse of local government, some local and external entrepreneurs moved in on government land and created limestone quarries to provide stone to face new buildings in Lebanon's cities. The quarry operations, and the heavy trucks that hauled equipment and stone, damaged roads and were a major source of dust, which coated leaves and fruit and reduced the productivity of both pastures and orchards.

Fast-forward to the early 1990s. Researchers from the International Center for Agricultural Research in the Dry Areas (ICARDA) conducting an IDRC-funded regional study

of agricultural changes were surprised at the extent of the changes that had taken place so quickly in Arsaal. Their study attracted the interest of an emerging multidisciplinary environmental research group at the American University of Beirut (AUB). With IDRC support, this group set out to explore the socioeconomic and biophysical sustainability of the changes in Arsaal.

The researchers found numerous sources of conflict in the region. Many of these had their roots in changes that had taken place over many decades, but some were much more recent. When civil war cut off urban employment options, many young men who had migrated to the cities returned to the Arsaal and expanded the fruit growing area or turned to smuggling goods across the mountains from Syria. The quarries, many of them illegal, had also expanded into the most productive ecological zone in the watershed, sometimes displacing both orchards and grazing land.

Nothing short of chaotic

These rapid changes in the social and livelihood systems, combined with traditional clan animosities, differences in class, in generations, in ethnicity, and in religion served to entrench conflicts and impoverish those with the least power. "The disruption of the original pastoral system was nothing short of chaotic," according to Shadi Hamadeh, principal investigator for the AUB research team. "Some communal lands were used for cherry production. Some government lands were expropriated for quarries. In many instances these events coincided with periods where there was a lack of local authority. Simply put, nobody was there to regulate all of this."

In the absence of any effective government structures in Arsaal that might support better resource management, the researchers looked for ways to improve the sustainability of agricultural practices and reduce land use conflicts. For inspiration, they turned to traditional tribal pasture-management practices, which involved consultation, face-to-face negotiations, and consensus building within the traditional *majlis*, or community councils.

The researchers worked with local community leaders and with the Arsaal Rural Development Association (ARDA), a local NGO, to help establish a Local Users Network (LUN) inspired by the *majlis*. This informal organization emphasized communication, participation, and learning, and served as a platform to bring together the diverse interests of the various resource users. The network was a flexible structure that included pastoralists and orchardists, men and women from the community, traditional decision-makers, and new local power figures, as well as the outside researchers and development project staff. They met regularly for face-to-face discussions of resource management problems.

The network also spawned a number of subgroups that focused on areas of common interest. Learning tools included discussions, interviews, and on-farm trials led

by researchers and farmers. The researchers stressed the importance of communications among the resource users themselves and between users and researchers. Communications media included videos and artwork, as well as brochures. Youth in the community were engaged to help build environmental awareness programs. In each area of activity, researchers helped farmers and local leaders to design and test resource management interventions, to secure livelihoods, and to reduce land degradation. Because the local people were directly involved in the process, the results were highly relevant, well accepted, and widely disseminated to local users.

As local people gained confidence and experience in the LUN process, they hosted groups of visiting farmers and officials from other parts of the region. The LUN has since served as a model for the establishment of similar community-based organizations in several other districts. A key outcome when local government was reconstituted in 1999 was that many of the newly elected councilors came from the ranks of LUN leaders. Despite this, the main focus of the LUN remains research and shared learning, not political involvement.

Long-standing conflicts

There remained, however, the decades-old conflict between the herders, the fruit growers, and the quarry workers. For many years, there had been no legitimate mechanisms through which the parties could address their disputes, explains Hamadeh. In the polite, formalized setting of the *majlis*, they found it difficult to confront the issues. Finding a resolution here might have taken years. And even after a new municipal council was elected in 1998, there was reluctance to address these long-standing conflicts in the formal setting of a public meeting — it simply would not be a culturally appropriate setting to resolve a dispute. So some groups were in danger of losing out in the land-use debate simply because they were unable to communicate their positions effectively.

“The reactivation of the local municipality brought back a political consensus to the village, which urged people to sit down and talk about the problem. So it triggered the dispute resolution process,” Hamadeh says. Finding a way to break this stalemate was a key success of the LUN, and it came about almost by accident. Young members of the LUN, in the process of making two video documentaries about the problems in the community, found that people were willing to speak very frankly to the camera. For them, the camera was a neutral object, not a person.

Seizing the opportunity, the researchers used the video interviews with the stakeholders to expose issues and challenge assumptions in ways that would not have been possible in face-to-face discussions. This proved to be extremely valuable for generating discussion and awareness. When those involved in the disputes watched the documentaries they began to understand and accept the viewpoints of others.

The videos were also invaluable to the researchers. “Through the process of making the video people became much more candid,” says Hamadeh. “For us, it was clear that there were conflicts, but we were unsure of their nature. Was it a land tenure problem? Or was it a traditional conflict between clans? By getting people to voice their real opinions about the conflict we became sure the problem wasn’t confined to clans.”

Now that they were sure where the real issues lay, the researchers provided a common geographic information system (GIS) database for all sides to use in their discussions, and they helped by suggesting win-win solutions — such as intercropping leguminous forages in the orchards to provide fodder for livestock and improve the soil at the same time. Using GIS tools, the researchers also worked with the fruit growers to identify those areas that were suitable for expansion with the least risk of degrading the land. In the process, the growers gained an understanding of the causes of degradation and that there are trade-offs in any form of land use. Extension efforts with the orchardists also led to improved orchard management, better pest control methods, and better marketing techniques.

For the herders, the very low return from livestock rearing was a major problem. It had become clear to the researchers very early in the project that the only way to improve the herders’ situation was through collective action. So, with their help, a herders’ cooperative was formed — the first in Lebanon. The goal of the cooperative is to improve livestock and range management and to implement effective marketing practices. Working with the researchers and the Ministry of Agriculture, the cooperative has introduced a number of innovations. Their success has also helped to rebuild esteem and improve social relations essential to re-establish shared management of the common resource base, says Hamadeh.



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Significant innovations

While the research team worked hard to introduce improved management technologies to benefit local farmers, the most significant innovations from the Arsaal project were undoubtedly institutional. The LUN, for example, created a forum for discussing problems and introducing new ideas to strengthen livelihoods, such as the herder's cooperative and a women's cooperative. The latter focuses on weaving carpets and processing fruits to add value to local agricultural products and to strengthen the livelihoods of its members.

The project has also served as a model for new research methods and processes and led to AUB creating a new Environment and Sustainable Development Unit. This unit undertakes multidisciplinary, participatory research on dryland areas that is grounded in the needs of the local people. The unit hosts several large community development projects and provides regional leadership in networking on participatory and community development. And although the research team did not set out to influence national policy — not that there was much in the way of regional development or pastoral policy for them to influence — their work has had a significant impact on local government, building capacity and providing tools to resolve resource conflicts.

At the national level, Arsaal continues to be regarded as a remote and marginal area of little interest to highly politicized government agencies. But the new local government, together with resource user groups, has been able to influence policies. For example, they were able to thwart proposed central government support for further development of the quarrying industry in the region. Together, the local council and the resource user groups and networks have established the institutional foundations for shared learning and resource sustainability using the tools generated by the research project.

This case study was written by Bob Stanley, an Ottawa-based writer.

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