Establishing a "Community Forest": Insights from the Collaborative Process in Migdal HaEmek, Israel

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Abstract

The basic principal in the establishment of "community forests" is the involvement of the proximate communities in its management and maintenance. The Balfour Forest, enveloping the Israeli town of Migdal HaEmek, was ignored by the local community who viewed it as a potentially dangerous no-man's land. The Jewish National Fund (JNF), Israel's forestry agency, initiated a process to engage the Migdal HaEmek community in developing and taking responsibility for the forest and serve as a model for the development of community forests in Israel. Between 2008 and 2009, the collaborative structure was designed and established, and community activists identified, recruited, and empowered to create a team of "forest trustees" whose activities continue to impact ties among the community and the forest. This article evaluates the process dynamics, outcomes, and impacts and examines their implications for intergovernmental relations, community empowerment, and environmental and development issues.

Community forests aim to provide local populations with opportunities for leisure and recreation, culture, health, and welfare. Community forest management policy is based on active participation and involvement of local communities. Proponents see a successful process as maximizing both recreational and cultural benefits for the community with functional and environmentally sustainable forest management objectives (UNECE (The United Nations Economic Commission for Europe), 2000; Lambrick, Brown, Lawrence, & Bebber, 2014).

In general, community forests aim to host diverse activities related to environment, ecology, and needs of local communities across the globe (Roe, 2006). Public participation is a mainstay of community forestry and aims to obtain support from and strengthen ties with local communities living in the forest or its vicinity (Raik & Decker, 2007). The goal of public participation in these contexts is to raise awareness to forest values, achieve cooperation from the population vis-à-vis forest management, and improve the forest ecologically (Atmis, Özden, & Lise, 2007; Lambrick et al., 2014; UNECE, 2000).

The Jewish National Fund (JNF), founded in 1901 to buy and develop land in Ottoman Palestine (later British Mandate for Palestine, and subsequently Israel and the Palestinian territories) for Jewish settlement, owns approximately thirteen percent of Israel's state lands. JNF (2015) is now Israel's forest agency, with a mandate for forest management. In 2004, the JNF embarked on a policy to promote community-based forests. This process had three main goals: (a) to improve the quality of life in the community by providing recreational infrastructure in nature to meet community needs; (b) to create a bond between the community and the forest in order to transform the forest from a "neglected backyard" to a vibrant resource in the eyes of the municipality and town residents; and (c) to raise environmental

awareness and create positive public opinion that would help protect the forest from future development pressures in a country where such pressures are powerful.

As part of this process, the JNF identified the Balfour Forest, surrounding the town of Migdal HaEmek and bordering on other communities in the area, as a suitable target for implementing the principles of a community forest. This choice was reinforced by an already positive cooperative relationship between the JNF and the municipality that produced a number of successful projects in the forest. One of these was the decision in 2007 to dedicate an area in the forest as a major urban park (Rabin Park) instead of a planned residential area. Additionally, two single-track forest bicycle trails had been opened and rapidly became popular with cyclists from all over the country.

The JNF hired a team of two consultants, experienced in collaborative processes, to help design, develop, and facilitate a process that would involve and empower neighborhood residents, local leaders, and interest groups in the development of the Balfour Forest in Migdal HaEmek as a community forest. What "empowerment" entailed was unclear at the outset, but on further development, the project goals included:

- *Community empowerment and building social capital*: transforming local residents into a proactive factor and a leading force in the management of the forest.
- *Environmental improvement of the forest*: raising awareness among the population of Migdal HaEmek of potential forest benefits and threats to its ecosystem. Linking the potential of converting the forest into a focal point of individual and neighborhood recreational activities as well as the town's open space arena for community gatherings, with the need to both protect the forest from the pressures of large-scale development and improve its environmental qualities.
- *Governance and intergovernmental relations*: transfer some of the JNF's sovereignty over the forest to the municipality and its residents. Encouraging the municipality to take long-term responsibility, including budgeting for forest planning, recreational activities and oversight, and empowering Migdal HaEmek's residents to become the leading force in the forest's management.

In addition, JNFs sought to develop a model process that could be applied in other JNF forests.

The Community–Forest Relationship

An abundance of the literature deals with community–forest relationships, demonstrating how they vary in time and among cultures. In developing countries, forests provide the basic existential needs of the people living on its edge: wood for heating and construction and fruit for food. Overexploitation of forests and land nationalization goals led governments in many countries to remove local residents from forests, using various means of enforcement. Such actions often worsened forest conditions by reducing labor for performing seasonal tasks and increasing the scope of illegal activities such as unregulated wood chopping (Atmis et al., 2007). In China and Nepal, for example, the government passed strict forest preservation laws and eliminated traditional uses of forests and their products. The laws were enforced by military regimes without regard for the local populations. This approach provided a short-term solution for forest conservation, but in the long run caused friction with the local community and harm to the forest (Khadka & Vacik, 2012; Mehta & Kellert, 1998; Ting, Shivakoti, Haiyun, & Maddox, 2012).

Recognition of these unwanted consequences led to the changes in perspective as forest management agencies came to understand the need to involve local communities in forestry activities, while keeping in mind their needs and traditional ways of living (Springate-Baginski, Dev, Prasad, & Soussan, 2003; Thang, Rossier, Schaltenbrand, & Sieber, 2007). In Cambodia, 57% of whose area is covered by forests, a broad government program for implementing principles of joint forest management with the surrounding communities improved forest environmental parameters significantly (Lambrick et al., 2014). Models for joint forest management with local communities (e.g., CBCM—community-based comanagement) developed in many places. Contrary to the centralized approach, which imposes from above

stringent laws on local communities, the participatory CBCM approach more effectively enabled governments, forest management agencies, and local populations to achieve long-term conservation goals and sustainable development (Gruber, 2010; Sturtevant et al., 2007; Ting et al., 2012). A similar model elaborated on in the literature is community-based natural resource management (CBNRM). CBNRM began as a model for joint management in various African countries (since the 1980s in Zimbabwe and South Africa) for the purpose of controlling illegal wildlife poaching and sustainable management of communities living in nature reserves. Subsequently, it became a broad model for the sustainable management of natural resources (Sebele, 2010).

Forests in developed countries are not usually sources for providing basic existential needs, but have economic significance, particularly for the wood and paper industries. Community forests have been developed in places subject to high urban development pressures as conservation leverage where the local population values the aesthetic, social, and recreational benefits of forests (Atmis et al., 2007; Janse & Konijnendijk, 2007; Konijnendijk, 2000).

Local populations living near forests are not homogenous in their concerns and relationship to forest uses (Skutsch, 2000). A starting point is the mapping of these concerns among the potential user groups (stakeholders), so that the forest can be managed according to local needs.

Attachment or Involvement and Collaboration or Participation in Sustainable Management of Natural Resources and Forests

Attachment to place is described as a variety of emotions that people develop for specific spaces in the public domain that create a unique "sense of place" including emotional ties and caring for the place, its landscape, and its heritage. These emotional ties between local populations and their natural environment are important for environmental management and for the possibility of integrating local social variables in the natural resources management system (Eisenhauer, Krannich, & Blahna, 2000). They can be leveraged to encourage community and social activity, and enhance community involvement in decision making and management of natural resources, open spaces, and forests. Public involvement in managing natural resources is also important as the local community has extensive knowledge about their environment that planners or managers lack (Sebele, 2010).

More recent natural resources policies see local community participation as a key element in sustainable management of protected and open areas, allowing the community to shape its living space according to its needs. Recruitment policies aim to actively involve the community in preservation together with, and not against, the agency responsible for managing the area (Buanes, Jentoft, Maurstad, Soreng, & Karlsen, 2005; Sebele, 2010). The call for involving the community is based on the assumption that collaboration will reduce opposition in the community to planning, development, or preservation steps, will minimize the negative effects, and will revive the local economy (Hardy, Beeton, & Pearson, 2002). What the literature often overlooks is the difficulty forest agencies often have with sharing power. These collaborations require the agencies ("experts") to relinquish sole sovereignty over forest management and become a partner with inputs and influence, but not prescriptive power.

Much of the literature points to public participation affording communities better control over their lives and an opportunity to take part and affect planning decisions that will have a long-term impact on the community. At the same time, "public participation" is a term that encompasses a wide range of tools and methods that include a varying degree of public involvement in planning and management. In her classic participation typology, Arnstein (1969), using an eight-rung ladder, describes different levels of citizen participation, from the lowest level of nonparticipation (processes designed as therapy or to manipulate), through token forms of participation (processes designed to placate, consult, or inform), and finally to public empowerment (processes designed to promote partnerships, delegate decision-making powers, or promote citizen control). Other ladders of participation followed (Wiedermann & Femers, 1993; Rocha, 1997), all putting forth various typologies within which participation practices fall.

Since the 1970s, public participation theories and processes have evolved, primarily in the United States and Western Europe. Formal and rigid processes comprised mainly of large forums of public hearings and information dissemination (accompanied by informal processes of protest) have acceded to collaborative meetings among stakeholders based on building a consensus that is not predetermined (Shmueli, 2005). The concept changed, with emphasis in development planning placed more on planning *with*... rather than planning *for*... (Gunn, 1994).

Yet many public participation processes in natural resources management, such as public hearings, conferences, and advisory committees, remain restricted to communicating (informing) and to a lesser extent consulting with the public (Janse & Konijnendijk, 2007). These processes are often unidirectional communication processes, a relatively low rung in the various models of civil participation.

A basic tenet in the writings on community forests is direct involvement of the public in an exchange of ideas to influence decisions and activities concerning the forest, independently or in organized groups. Such processes are voluntary and require transparency and mutual trust among participants (Atmis et al., 2007; UNECE 2000; Ting et al., 2012). Practitioners and researchers report that involving the public can contribute to sustainable forest management by combining the knowledge and expertise of forest management professionals with the knowledge and resources of the local community. The decision to rely on the "community forest" as a management method depends both on the willingness of the local community to commit to long-term collaboration and on the willingness of forest management agents to take on the challenge involving multiple partners, ideas, and interests (Khadka & Vacik, 2012; Pagdee, Kim, & Daugherty, 2006).

In its most recent incarnation, this approach demands a change in conceptions and values, in which "public participation" is not "actions for the public" (such as community tree planting or sports and cultural activities in the forest; Atmis et al., 2007; Roe, 2006), but rather "collaboration" that includes delegation of authority, decision making, and building community capabilities. The development process has to focus on empowering the community and teaching skills that will foster growth, which rely on internal community forces instead of external ones.

In a comparative study, Pagdee et al. (2006) reviewed 69 cases in order to define the effective community forest management. Their research indicates that successful management policies for a community forest depend on several factors, particularly support by the authorities, ensuring decentralization of authority, clear rules and regulations, appropriate representation of all stakeholders, preparation of a long-term plan, financial capital and professional guidance. In order to create a collaborative decision making and management process suited to local conditions, data must be collected and analyzed in each of these fields.

The bulk of criticism of public participation in forest management has two foci: lack of representation and only the outward appearance of participation. The representation issue is a complex one in any participation process. On the one hand, only a small number of the stakeholders take part, while on the other hand, the meetings allow nonorganized stakeholders to express opinions. The challenge is to keep people committed to the process over time. The value of the process depends on its continuity and on the relationships that evolve among stakeholders. This aim is complicated and the process complex when the composition of working groups is constantly changing (Sipilä & Tyrväinen, 2005). The second caveat arising from the experience of many community forest projects is that of exhibiting only an outward appearance of participation, with forest management agents unwilling to share decision making and/or management powers. Often official forest management agents consider contributions of community representatives as unprofessional or worse: illegitimate, inadmissible, and unjustified (Khadka & Vacik, 2012).

Quite a few of the classic articles from the general literature on participation or collaboration also influenced the structure of the Balfour Forest process to be described below. Carpini, Cook, and Jacobs (2007) wrote an insightful article on public deliberation; Glenn and Kuttner (2013) discussed roles of dialogue in facilitated processes; Reed (2008) developed some environmental management typologies

and best practices; Forester (1987) wrote about negotiation strategies in land-use regulations; Yaffee and Wondolleck (2000) drew useful lessons from collaborative resource management experiences. Methodologies that were used in various meetings included nominal groups (Glass, 1979) and variations of Kevin Lynch's (1960) cognitive mapping ideas. Examples used in Innes's (1996) article promoting planning through consensus building offered a number of suggestions on meeting formats and Helling's (1998) collaborative visioning also served as a basis of process design ideas. A number of researchers wrote about the utilization of local knowledge in the planning process (Van Herzele, 2004; Corborn, 2003). Corburn dealt with fundamental questions about the utilization of local knowledge, how it differs from professional knowledge, and how it can best be utilized in professional planning. Insights from these and other publications on participation and collaboration in general aided the team in designing and structuring the process to be described.

Community Forest Development in Israel

The JNF is Israel's official forestry agent and major actor in Israel's land nationalization process and as such responsible for forest management in Israel. For the last decade, the JNF has been developing a process that aims to involve communities in the maintenance and conservation of forests in their surroundings. The process is based on several principles:

- Conserving and cultivating the community forest area and its heritage and nature values as one way of combatting development pressures.
- Ensuring access to all parts of the forest and free use of its parks and facilities.
- Managing "forest life" through collaboration and reciprocal commitment among the JNF, the local municipality, and the local community (Shaler, 2009).

The first two community forest programs were implemented in 2004 in the forests of Shoham and Rosh HaAyin, with populations at the time of approximately 19,400 and 37,900, respectively (Central Bureau of Statistics, 2005). Both communities were on the higher end of the national socioeconomic rankings scale (8 and 6, respectively, on a scale of 1 = *lowest* to 10 = *highest*, Central Bureau of Statistics, 2005) with a good proportion of their populations aware of and concerned with sustainable development issues. Not surprisingly, the JNF felt most comfortable initiating and conducting various activities and events in its forests, for example, clean-up campaigns, field trips and outdoor events, tree planting, opening new trails and activities for schoolchildren, with the aim of reinforcing the public's connection to the forest and understanding the importance of its conservation. As the population was a priori relatively engaged, this seemed to work in those locations. However, this did not include forest comanagement, one of the prerequisites to meeting the stated principles of a "successful" community forest (CBCM, Ting et al., 2012).

The Balfour Forest

The Balfour Forest, named after Lord Balfour, author of the Balfour Declaration, envelops the development town of Migdal HaEmek from all sides and affords spectacular views of the Jezreel Valley settlements. A "development town" is one of a group of towns and cities in the periphery of Israel built during the early years of the state in the 1950s. Most of the development towns were built in the Galilee and Negev—sparsely populated areas compared to the dense central region and Jerusalem. These towns were created to meet three national goals: dispersion of Jewish population throughout the country, absorption of new immigrants (primarily Jews from North African and Middle Eastern countries), and defending the country's borders. Despite the various benefits and subsidies provided by the state, most of the development towns have failed economically and socioeconomic status of residents is low relative to other cities today.

In 2007, Migdal HaEmek had a population of 24,800 and a socioeconomic ranking of 4. JNF assumed that because of Migdal HaEmek's lower socioeconomic conditions, environmental awareness might be lower and the possibility of engaging the population in environmental activities more difficult. The forest also borders the Arab village of Yafia (population 16,200 in 2007 and socioeconomic metric of 3) and the kibbutzim Yifat and Ganigar (population 800 and 480, respectively; Central Bureau of Statistics, 2009). From the outset, the project focus was on the urban area of Migdal HaEmek where development pressures on forest areas were great; the rural communities, both Arab and Jewish, were not included. The forest, which in the early years had been a recreational space for Migdal HaEmek residents and the focus of community activities, deteriorated and in more recent years suffered from neglect and vandalism. The municipality had ceased to use the forest for community events and families abutting the forest began to see it as a danger as opposed to a resource. Replacing the neglected forest with new residential and commercial development began to look more appealing, and pressure to redevelop was increasing.

As part of a structured process for the collection of forest data, in early 2006 the JNF commissioned a community attitudes survey on the subject of community forests, focusing on the Migdal HaEmek, Rosh HaAyin, and Shoham forests, intended to assess the number of forest visitors and review the motivation of local residents to visit the forests. The results indicated that close to half of the respondents in Shoham and Rosh HaAyin had visited the forest near their home at least once during the past year. In Migdal HaEmek, on the other hand, approximately 74% of the respondents had not visited the forest at all in the previous year, but the average number of visits per visitor was 18 times, the highest among the three locations. This finding indicated to the JNF a significant difference in forest awareness and visiting patterns between forests where a public participation process was already under way (Rosh HaAyin and Shoham) and a forest where community forest activity did not yet exist (Migdal HaEmek). Many of the Migdal HaEmek respondents said: "We have nothing to do in the forest" (35%) and stated (48%) that rehabilitation, development, and changes in the forest might cause them to visit it (Fleischer, 2006). The survey results implied a distancing between the population of Migdal HaEmek and the forest. However, at the same time, their responses included a strong desire to revisit the forest if it were to change, and those familiar with the specific JNF forest ranger responsible for the forest had belief in his abilities and persistence to effect change. This resulted in the selection of the Balfour Forest as suitable for implementing the principles of a community forest, and the JNF proceeded to hire two consultants[1] with experience in collaborative processes to design and facilitate the first 2 years of the project (Figure 1).

The Migdal HaEmek Community (Balfour) Forest Process

The first issue raised by the consultants was revisiting the boundaries of the project. Would the stakeholders include residents of Yafia and the two kibbutzim which also border on the forest or only those of Migdal HaEmek, the community completely enveloped by the forest? As mentioned above, the JNF focused the Balfour community forest project on residents of Migdal HaEmek only. Migdal HaEmek is where they perceived the greatest threat of encroaching development and they felt that engaging the population of Migdal HaEmek itself would prove challenging, without the added complexity of dealing with Jewish–Arab or urban-kibbutzim collaboration. JNF left open the possibility of expanding the stakeholder base in a future stage of collaboration.

The process of forming the group of "forest trustees" (Migdal HaEmek community volunteers) who were to be involved, active, committed, and active as the connection between the forest and the town was a long one and encountered logistical, operational, and budgetary challenges. It was a slow process, built on incremental and steady steps.

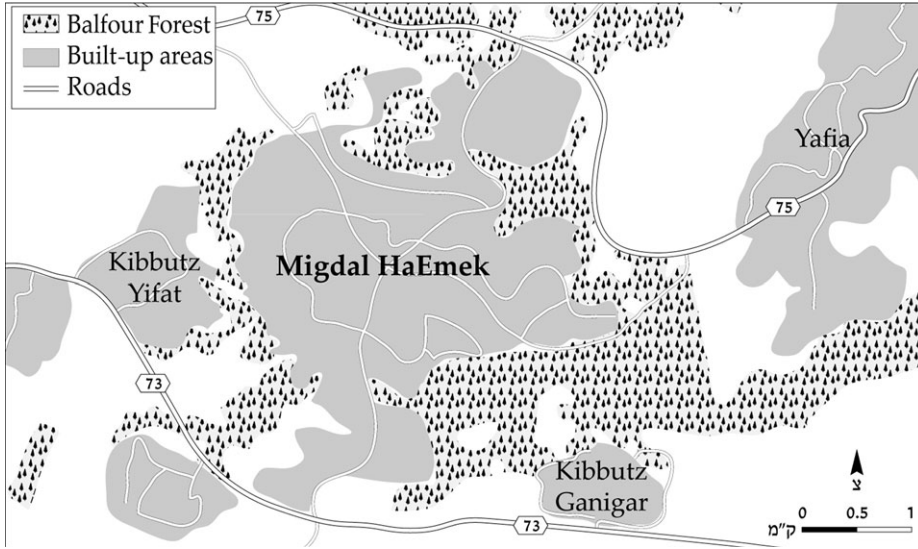[1]The consultants are the authors of this article.

Figure 1. The Balfour Forest and surroundings (Gasul and Shmueli, 2013).

Precollaboration

Significant steps occurred prior to public involvement. The consulting team first met with representatives of the JNF and the municipality, during which discussions of benefits and drawbacks of shared policy development and management were explored (heretofore the JNF was the sovereign decision maker and implementer with regard to the Balfour Forest and it took a number of meetings before the JNF understood and agreed to the ramifications of shared management). As a confidence-building measure demonstrating a desire and capacity to share responsibility, the mayor and head of the welfare department committed to the creation of a new position for a community forest coordinator funded by the municipality, with a long-term, albeit limited, budget. Achieving initial understanding by the JNF that they would no longer be sovereign and the support of the municipality with its agreement to provide a long-term budget provided a foundation for building the collaboration.

The preparticipative stages took place in 2007 and included a complex series of facilitated meetings with the mayor, welfare department representatives, nongovernmental community organizations (e.g., the community center and various volunteer organizations), and representatives of the JNF. A full year was needed to reach consensus between the municipality and the JNF concerning the project goals and methodologies: advancing intergovernmental cooperation (between JNF and the municipality), empowerment of Migdal HaEmek residents, and improving environmental conditions and management of the forest. The municipality then hired a community forest coordinator. Her first task was intensive recruiting of volunteer residents through personal conversations emphasizing the potential for community empowerment in Migdal HaEmek. Given that many of the Migdal HaEmek residents did not have a predisposition or knowledge of sustainable resource management (there was a much larger core of previously engaged residents in the Shoham and Rosh HaAyin projects), the need of empowerment was key. Moreover, empowerment around forest management was seen as a step to empowerment in other areas of community life, something new to the majority of residents in the town, many of whom face economic challenges.

The Community Collaboration Process

Community collaboration in Migdal HaEmek was a *spiral* process where each stage built on the results of the previous one. The broad base of the spiral was created in a series of facilitated public meetings. The content on which the trustees' work would focus was determined collaboratively by the stakeholders (community activists, municipality, and JNF representatives) through identifying and prioritizing issues and projects for development and implementation. On the organizational level, the community forest coordinator played a key role in the process. She was responsible for recruiting activists from the community, keeping in constant touch with them via phone and email between meetings to encourage, boost attendance, and provide solutions to various problems which invariably arose. The initial community group consisted of 70 residents, and once the excitement of engagement wore off and the work commenced, the core became 32 activists who continued throughout the process in 2008, with 20 of them still active today (6 years later) and with additional new trustees.

The facilitators helped the group organize topics for discussion, timetables, crystalize the different interests among the community activists themselves and between them and the representatives from the municipality and the JNF, and managed the meetings.

Some of the activities proposed by the participants included family recreation facilities and events in the forest, like urban parks with playgrounds, hiking trails, signage, etc. Many proposals focused on advancing environmental issues either by means of environmental education and awareness-building or by offering to devote forest areas to full rehabilitation by terminating or prohibiting activities. On the other hand, suggestions for significant developments like guest houses, horse farms and other attractions, and a country club were also considered.

Participants' proposals were prioritized by the group in its entirety. This prioritization occurred after a deeper understanding of the statutory climate and planning limitations were explored. The highest ranked were additional urban parks, rehabilitation of the natural forest, long-lasting statutory protection from housing and other development, and environmental education programs at the town's schools. The priorities reflected community interests, not development interests. As outsiders to Migdal HaEmek, prodevelopment interests (private interests, Housing Ministry and Land Authority) were not at the table. Indeed, the original initiative came from JNF as a preemptive antidevelopment measure to be accomplished along with their other goals.

After each meeting, the facilitators prepared and circulated meeting protocols and summaries to all participants and incorporated all feedback before the next meeting commenced. A couple of the meetings took place in the forest itself, with guided tours by the forest ranger, open discussions, and ranking of forest development barriers and limitations. The forest site meetings were critical to the groups' understanding of what could and could not be developed and thereby helped resolve a number of conflicting positions. Here, the power of combining local and expert knowledge was particularly evident.

The group developed a list of operative topics for action which were divided into a typology made up of five categories: forest rehabilitation and preservation; education to raise resident awareness of the forest and its resources; and planning for attractions, facilities, and infrastructure. A few sessions were then dedicated to understanding statutory planning regulations. Participants were uncomfortable with statutory limitations that blocked the implementation of some of the ideas raised in the meetings, and it took some time to understand the complexity of the planning framework.

Once a typology of actions or projects emerged, the next step was to divide into work groups, each to be led by a community member. This stage, envisioned by the facilitators as one of empowerment, was a surprising sticking point in the process. Residents who were active and motivated at professionally facilitated meetings were very reluctant to take on responsibility and to lead a group of other residents. In other words, the role of the community in the initial typology-building stage was relatively passive and although participatory, lacked leadership. Only after intensive scouting and numerous away-from-the-table outreach efforts, did workgroup leaders emerge. Instead of five groups, two were established:

"planning or development and conservation" and "education and public relations and awareness." Each group was led by a community activist and a representative from the JNF and the municipality.

The transition to independent workgroups was slower than expected. At the workgroup leaders' urging, the consultants remained for the first meeting of each group. After each of the subsequent workgroup meetings, the workshop leaders wrote a protocol which he or she submitted for comments to the consultants. In essence, at the initial urging of the participants, this allowed the consultants to remain in the picture and provide guidance even after the professionally facilitated meetings were concluded.

During the next 5 months, the groups visited other forests and acquainted themselves with a variety of recreational elements and activities which motivated them as a team. The trustees bonded, creating shirts with a community forest logo, and became increasingly enthused and committed to the project. Each workgroup produced documents that included a vision and mission, proposed projects, operative steps for implementation and timetables, and identification of the institutional networks which they had to develop: different municipal departments, tie-ins with the school system, and philanthropic organizations who could procure additional funding (Partnership 2000, The Council for a Beautiful Israel) to support the envisioned activities.

At the end of 2008, a festive public event was held in which each group communicated its plans, and the mayor (who had been updated continually throughout) committed to support the ongoing process and to help promote the projects determined by the workgroups. The message communicated was a message of successful activism and promise to implement plans. The event also served to as a catalyst for the expansion of voluntary circles of community forest trustees.

The organizational model that emerged in the process includes three main vertices and a connecting core (Figure 2). The model is based on long-term, continuous, and intensive collaboration between the community via its activists (forest trustees), the JNF and the municipality. The latter consists of a number of departments, including the welfare department (contact with the volunteers, the youth, budgeting), the community center, and the education department (contact with the town's formal and nonformal education systems). At the core of the model is the community forest coordinator, a municipally funded position. The coordinator serves as the link connecting all the stakeholders, helps recruit volunteers and maintains contact with them, and serves as a liaison between the activists and the municipal departments—enabling preservation, development, events, and activities in the forest. The forest
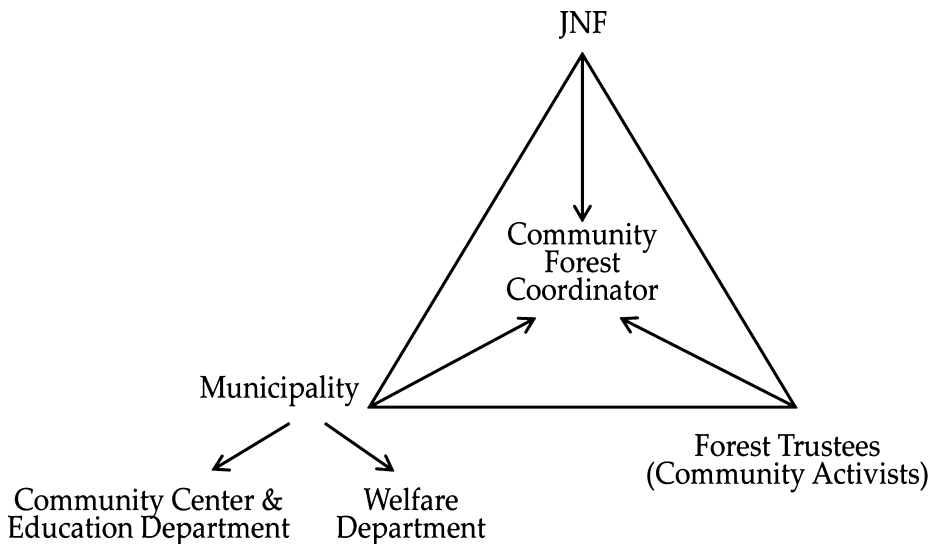

Figure 2. Organizational model for community forest structure (Gasul and Shmueli, 2013).

trustees group is the driver for community activity in Balfour Forest, involved in educational activities and in leading the actual planning of infrastructure and project development in the forest.

Evaluation

The collaborative process was evaluated in two stages: a semistructured questionnaire and annual follow-up interviews and reports with JNF officials between 2009 and 2016. The first stage took place at the last facilitated meeting with the consultants. A semistructured open questionnaire was circulated among 19 participants (11 residents who became forest trustees, 5 JNF personnel, and 3 Migdal HaEmek municipal officials—head and vice head of welfare department and the project coordinator). The questions focused on participant expectations at the outset, whether or not they were realized, how the process could have been improved, its strengths and weaknesses, and their hopes and recommendations for unfacilitated continuation.

Findings are summarized in Table 1. In addition to the questionnaire, a limited summative outcome evaluation was undertaken by the consultants on an annual basis, through communicating with the JNF management—the Balfour Forest ranger, the regional coordinator, and the JNF chief scientist. These

Table 1

Summary of Findings From Semistructured Questionnaire Responses at the Close of the Facilitated Process

Issue	JNF personnel	Municipal officials	Forest Trustees
Expectations at process outset	Resident engagement and long-term involvement; cooperation with municipality; preempting development initiatives	A large number of engaged residents and bonding between residents and forest	Empowerment; rehabilitation of the forest; reviving the forest as a focal point of community activity
Were the expectations met?	High satisfaction with the formation and cohesion of the trustee group and their activities	Partial satisfaction; satisfied with the resident involvement but skeptical of the implementation of the groups' plans	Mixed levels of satisfaction; some were very satisfied with the process; others feared that the plans developed would not be implemented
How could the process be improved?	More municipal commitment, larger budget allocation	More massive resident involvement and a stronger municipal framework for the additional involvement	The process was good; waiting to see implementation
Positive process elements	Facilitation; municipal coordinators; the public involvement	Facilitation, the commitment of JNF and their representatives in the process	Volunteers who are willing to commit and contribute; the participation of the JNF and municipality; the activities that lend to the bonding and cohesion of the trustees group
Negative process elements	Low municipal commitment; Nonparticipation of national stakeholder organizations such as the Ministries of Environment and Interior, which might have contributed to the implementation phases	Not all the trustees participate in all the meetings; the process itself was sometimes too elaborate and long (wanted to see results quicker)	The bonding of the group took too long; the planning stage was long; wanted to see implementation
Expectations for the project continuation postfacilitation	Want the trustees to take the lead and the JNF role to be reduced	Want the continuation of JNF participation; more volunteers	Implementation of projects and plans

reports include planning initiatives and activities in the Balfour Forest that were instigated by the trustees group, and challenges to progress and expanded involvement (e.g., personnel changes, lack of budget) over a 6-year period. A summary of the findings of the annual interviews or reports includes the outcome benefits to the community, JNF and the forest, and the identification of ongoing challenges whose management requires continuous mitigation and collaboration efforts.

Positive Outcomes or Benefits

- The group of forest trustees is stable, strongly bonded among themselves and within the community, and is a driver for community activity in Migdal HaEmek—both within and outside the forest framework;
- The model based on the JNF–community–municipality collaboration was expanded to include the following permanent partners within Migdal HaEmek: the social services department, social workers, the volunteer coordinator (for all activities in the town), the community center and the municipal beautification department. Partners who joined as funding sponsors are Partnership 2000 and the Council for a Beautiful Israel (the latter two are national NGOs).
- There is an ongoing stream of activities: forest events, cultural and religious celebrations, free guided tours, broad ranging activities within the educational system, initiation and promotion of infrastructure planning.
- Despite the significant increase in users and visitors, the average amount of trash removed from the forest around Migdal HaEmek has decreased from 200 cube/year (prior to 2009) to 30–40 cubes (2015).
- Unplanned fires and vandalism have decreased considerably according to both JNF and municipal reports.
- The maintenance of the playgrounds or parks (one developed before 2008 and the other in 2014) has been transferred from the JNF to the municipality, with positive outcomes.
- Fundraising: the vision formulated by the forest trustees led to upgrading of Balfour Forest by the JNF; additional organizations, for example, the Israel Government Tourist Corporation and Partnership 2000, are expected to participate as well.
- The municipality has continued budgeting for the community forest coordinator position and (partial) budgeting of activities and publicizing forest activities on the municipal Web site.
- The municipality and the JNF have continued to prioritize projects supported by the forest trustees for implementation (e.g., developing a recreational "fitness park").
- Forest activism has affected environmental attitudes in Migdal HaEmek. Environmental education in the schools has increased significantly, community gardens have been established, and environmental events are now numerous.
- Project and activity remain continuous, even as the people in relevant positions change.
- Forest trustees are supported by means of study days, excursions, and events.
- New volunteers are recruited by means of a 10-session "forest activist" course (2012).
- Due to the success of the project, the area of the forest around Migdal HaEmek is awarded greater attention and resources, including more allocation for forest upkeep and maintenance (pruning, trail improvements, fire prevention and replanting trees, and planting replacement programs aimed at reverting the forest to its natural fauna).

Ongoing Challenges

While considerable progress has been made both in improving forest management and in building social capital, challenges remain. These include:

- Budgeting: regular budgeting for the community forest coordinator position and forest trustee activities, fundraising for development and budgets for forest events;
- Motivating the volunteers and conducting ongoing activities;
- Trustees' frustration when processes take time with no immediate results;
- Cultivating community spirit and a sense of belonging among the trustees;
- Recruiting new volunteers and expanding the group to include representatives of communities in the town not yet involved in the process;
- Transferring more responsibilities from the JNF to the community (for instance, the yearly forest maintenance program is developed by the JNF forest ranger who *informs* the municipality and the trustees of the plan. It is expert driven (which may be appropriate), there is no input or collaboration); and
- Maintaining strong institutional ties as the political and professional office holders change.

Conclusions

Lessons Learned

In the collaborative process described, a number of lessons can be drawn. These insights are summarized in a matrix that examines the main goals of the process, for example, intergovernmental relations, community empowerment and social capital in the town of Migdal HaEmek, and rehabilitation and improvement of the forest ecosystem. The outputs in each of these categories are analyzed on three levels: process dynamics, outcomes (values, decisions, policy changes, projects, and plans), and long-term (6 years postfacilitation) impacts (Table 2).

Some challenges were not addressed by the process. Of particular concern, collaboration with the village of Yafia (or any of the other abutting communities that also border the forest) has only slowly emerged. The issue of collaborating with other communities adjacent to the forest, especially the Arab community which is the largest, was identified as a challenge during workgroup discussions. However by majority decision, the workgroups chose to focus on issues within Migdal HaEmek. However, in 2015, the Yafia municipality proposed the development of a "friendship trail" through the forest connecting Yafia and Migdal HaEmek; the project is in the final planning stages and at this point budgeted by Yafia. Groups from both the Yafia and Migdal HaEmek communities are now working jointly on small projects along the trail. Thus, the collaborative forest management perspective is slowly ripening to cross-community and cross-ethnic cooperative efforts.

Perceptual Change

Empowering the community to become an important factor in the decision making, implementation and management of the Migdal HaEmek community forest required a perceptual change among three groups of stakeholders:

- The JNF: partial relinquishment of authority over the forest to the local community;
- The Migdal HaEmek municipality: prioritizing the forest as an urban space worthy of cultivation and delegating responsibilities to the community (via its representatives);
- Town residents: raising awareness of the forest's importance and taking responsibility for it.

Analysis of the interview findings identifies the degree of these changes (Table 3).

Table 3 indicates that the JNF, despite being the initiator and driving force behind the process, with the greatest desire for its success, still has difficulty in relinquishing control over the forest to the community (annual plans). In the municipality, change is evident in the increased awareness of and belief in

Table 2
Lessons Learned

	Process dynamics	Outcomes (values, decisions, policies, project, and plan initiatives)	Impacts
Intergovernmental relations	Understanding on the part of the *JNF* that they would have to relegate power came only after it was clear that the JNF's goals for the Balfour Forest, given the communities which it embraced, could not be met without doing so *Migdal HaEmek's* gaining of partial decision making and management power came only after it committed budgetary and personnel resources	Stable model of cooperation embracing: the forest trustees, the project coordinator, various municipal departments, and the JNF	Shared responsibility
Social capital or community empowerment	Developing capacity (incrementally) which enabled transferring the responsibility from the external consultants to the community	A collaborative definition and refinement of the values related both to the forest and to the community's place within the forest. A close knitting of the municipality's *Education* and *Welfare* departments with forest trustees and activities Trustees have gained standing and status within the community and municipality and influence projects, budgets, and plans	Stronger community capabilities—leadership and initiative Local pride and cohesion Perceptual change: from a town with a forest as its backyard to a *town within a forest*
Environmental and development outcomes	Gaining knowledge of the forest ecosystem and statutory planning framework Identification of problems and opportunities within the forest and prioritization of these by the forest trustees	Municipal activities transferred to the forest: town's holiday celebrations and nature events are held in the forest; various formal and informal educational activities for children and youth are held in the forest, incorporating outdoor learning and guided nature walks More trails, wildflower beds, plantings, and signage Additional urban park Recreational fitness park area	Forest as a *safe* place within the neighborhoods Less littering and garbage Fewer fires Less vandalism A clean and vibrant environment Consensus regarding strong forest preservation and antiheavy development on forest land

the process, as well as in its prioritization and view of Migdal HaEmek as a "town within a forest" (new town slogan). However, recurring battles over regular budgeting of the forest, its trustees, and activities show that awareness needs constant encouragement and still requires improvement. The local community and forest trustees are eager to collaborate and believe in the process, although their faith wavers when reality (either regulatory or budgetary) poses difficulties in attaining implementation goals. Change in the way the residents perceive the forest is expressed by high levels of participation in forest community events initiated by forest trustees. At the same time, there is still noticeable difficulty in assuming more comprehensive responsibility. In this respect, processes that are now closely facilitated and supported by the JNF and the municipality's welfare department may remain dependent upon them and

Table 3

The Degree of Perceptual Change Among Stakeholder Groups Since Process Initiation in 2007

	JNF	Municipality	Local community
Process dynamics			
Faith in the process	+++	++	++
Willingness to collaborate	+++	++	+++
Outcomes			
Ability to relinquish partial (JNF)	+	++	+
Authority and ability to take responsibility (municipality and the forest trustees)			
Impact			
Prioritizing the forest as urban space that should be cultivated	+++	++	+++

attempts to develop independence and take on greater community responsibility must overcome this dependence.

All collaborative processes face choices and options, turning points and sticking points throughout. One key take-away from this case is that attention has to be paid to these points in "the thick" of the process, and not skipped over. The process facilitated in this case took more than twice as long as anticipated. Although slower, this attention likely helped the group move closer to the realization of goals and implementation.

The case has highlighted some salient issues related to public involvement and collaboration in sustainable development and management processes generally and specifically to community forests in Israel:

- Participation versus collaboration—creating the community forest required a conceptual change within the JNF that had, in essence, to relinquish partial authority over the forest to the local community. The municipality and residents had to develop the capacity to take on the responsibility.
- Indifference versus responsibility—creating the community forest required a conceptual change within the municipality—prioritizing the forest as an urban space worthy of cultivating, assuming long-term fiscal responsibility (in a town without a particularly strong fiscal base, although with a growing high-tech industrial park), and delegating power to the community (via its representatives).
- Involvement versus attachment—raising awareness among residents to the importance of the forest, active involvement in managing and maintaining the forest led to creating a feeling of belonging with the forest as a public and personal living space.

Over the last 3 years, the community forest process developed in Migdal HaEmek has become an inspiration for other communities, professional organizations, and government ministries embarking on conversion of forest lands adjacent to built-up areas to community forests, as well as a more general model for the comanagement of open space within and near communities. The community cohesion and empowerment as perceived by Migdal HaEmek residents and communicated to others, and the environmental improvement of the Balfour Forest as reported by the JNF, are the key elements that have converted this experience to a model of intergovernmental and community collaboration from which to learn and improve in other locations. The stakeholders also emphasize the combination of expert and local knowledge which make for a sustainable resource comanagement team. Implementation is not a one-time effort. The empowerment of the community has to be constantly nourished and strengthened and is fragile. Sustaining this comanagement model demands ongoing and continued involvement, fiscal support, and training.

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