

The Evolution of Casa Pueblo, Puerto Rico

From Mining Opposition to Community Revolution

Alexis Massol-González, Avril Andromache Johnnidis and Arturo Massol-Deyá gatekeeper

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The role of local organisations in sustainable development

The roles of local organisations in poverty reduction and environmental management

All poverty reduction is local. This is easy to forget given how discussion and debate on the subject is dominated by bilateral aid agencies, development banks, national governments and international NGOs. But regardless of higher level commitments and decisions, what actually happens on the ground in particular localities is what makes the difference. Many barriers to poverty reduction are local — local power structures, land owning patterns and anti-poor politicians, bureaucracies and regulations. Much of what the poor require — schools, healthcare, water and sanitation, land, social safety nets, getting onto voter registers — must be obtained from local organisations within this local context.

Local organisations have a major role in addressing these realities, helping poor groups access entitlements and engage with government. They may be local NGOs, grassroots organisations of the poor, or even local governments or branches of higher levels of government. But they function on a local level, have intimate knowledge of the local context and should be accountable to local people. Many operate on very small budgets, outside the main funding flows and frameworks. Yet they are not isolated from larger governance issues; indeed, much pro-poor political change has been catalysed by local innovations and by political pressure from grassroots organisations and their associations.

This publication is one in a series of case studies and synthesis papers looking at the work of local organisations in development and environmental management. These publications were developed in collaboration with the local organisations they profile. They seek to encourage international funding agencies to rethink the means by which they can support, work with and learn from the local organisations that are such a critical part of pro-poor development.

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Executive summary

Casa Pueblo began as a grassroots' citizens group formed to oppose the Puerto Rican government's plan to allow large-scale open-pit mining by international corporations in the central region in 1980. Its aims have since evolved to promoting community self-reliance and community-based self-management, while conserving cultural heritage and local and national ecological integrity. Its philosophy is based on a "social transformation model": the affirmation of cultural (local) values, reinforcement of self-esteem, and promotion of selfreliance and self-responsibility. It implements this through community culture (i.e. through the use of art, music and field action), information gathering, sound science and research, and self-sufficiency through community enterprises, such as coffee production, a community store and eco-tourism.

In addition to successfully preventing the planned mining project, Casa Pueblo has also changed national mining and forestry policy. It has promoted sustainable forestry, developing a string of pro-poor, pro-environment forest reserves; developed a model of communitybased forest management; influenced government to create a national forest fund for the purchase and conservation of land of high ecological value; created the nation's first biological corridor; shaped landscapes through encouraging better farming practices; launched an environmental education programme; brought scientific advice into the organisation; and demonstrated options for the use of renewable energy.

Casa Pueblo has faced many difficulties, including opposition from vested interests in mining, and government opposition or indifference. This was addressed through diversification, building the support of stakeholders and supporters, and gaining people's trust through openness, transparency, and including the community in the decision-making process. Casa Pueblo has developed ties at the local and national levels with relevant ministries, local donors and the media. Puerto Rico's international isolation due to its colonial political status initially meant limited access to external funding, international fora, and global community networks, although its networking efforts and increasingly high profile have begun to improve this situation. The organisation's future plans focus on strengthening and protecting its achievements: improving the management structure to facilitate inter-generational changes; and encouraging horizontal growth through the social transformation of both local and more distant communities. It is also seeking alternative forms of financing that could enable scaling-up.

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Casa Pueblo's evolution

Saying "no" to mines: the catalyst for Casa Pueblo

In 1980, the government of Puerto Rico announced its intention to allow large-scale open pit mining by multinational corporations in the centre of the island. In the preceding decades the region had been included in the central government's territorial plans as a "mining area". This designation prompted the eviction of residents in order to expand mining. Abandonment of agricultural activities, the closure of the local sugar mill, a decline in coffee farming, the closure of schools, and the denial of construction licenses for churches and houses had all led to severe social marginalisation and remarkable levels of unemployment. These events allowed multinational corporations based in the United States to purchase lands at low cost, especially where the richest deposits of gold, silver, and copper were located. Faced with the prospect that the government would now issue mining permits that would result in ecological disaster, widespread pollution of all kinds, and compromise the social, cultural, and economic integrity of the nearby communities, a grassroots citizens' group organised themselves into the Taller de Arte y Cultura (Art and Culture Workshop) in Adjuntas, a small town in the island's central mountain region. The group, now known as Casa Pueblo, began with three basic tasks to launch a process of community organising and self-determination:

- 1. gathering scientific knowledge
- 2. developing a policy
- 3. strategy planning

Scientific knowledge: the key to the campaign

In order to learn more about the government and mining company's specific plans, the group gathered official documents and scientific studies. They found that 17 mineral beds suitable for commercial exploitation had been identified around Adjuntas and the surrounding municipalities. The proposal for mining would include nearly 14,000 hectares

(ha) of land in the central area of the island and the extraction method would involve digging massive craters up to almost 600 metres deep and almost 1,600 metres wide. The mining company's own reports foresaw radical reductions in the flow of crucial water sources for 1 million people, contamination of air, agricultural soils, and sources of potable water, as well as further problems of erosion, acid run-off, and sedimentation of lakes and rivers.

Initially, the Taller de Arte y Cultura's campaign was one of education, enlisting the help of outside experts to give lectures in the local communities. This focus on improving knowledge about the local situation strengthened the community-based process and the group decided that it must not be dependent upon the government, politicians, or even experts or advisers to decide the community's fate, no matter what good intentions such actors may have. Such dependence is neither healthy for the environment, nor for the community.

Public policy from the bottom up

Armed with the necessary knowledge, the group formed its own interpretation of the social, scientific, environmental, and political implications of the mining. It concluded that the main issue was neither who would exploit the mining deposits (whether Puerto Ricans or foreigners), nor who would obtain the profits (whether capitalists or workers)—the questions with which earlier anti-mining opponents had concerned themselves. The main issue was the indisputable threat to the integrity of the land and the health, culture and way of life of the people; in short, a threat to the survival itself of Puerto Rico as a nation. The situation was one of blatant colonialism, where foreign multinational corporations would plunder the land, reap enormous profits, cripple traditional social structures and the regional economy, and leave destruction in local communities. After assessing the problem and viewing it through the lens of Puerto Rico's colonial political status, the Taller declared its own position: "No to mines under any condition".

Strategy planning for success

With the problems identified and the Taller's position towards them clear, the group sought to devise a clear, efficient and meaningful campaign that would gather together different sectors of the community with the intention, the will and the capacity to prevent mining activities. Initially, apathy, indifference and fear—due to repression and intimidation by the government—prevailed in the community. Furthermore, most people actually favoured mining, including the municipal governments that organised demonstrations in the capital city to insist that Puerto Rican "central development", based on exploitation of non-renewable natural resources, should begin. However, these factions were generally not aware of the details or consequences of the mining proposal. Their intentions were either to economically support a potential Republic of Puerto Rico or to sell the Puerto Rican statehood to the USA.

Culture as an instrument for change

Faced with the imminent start of mining activities, a lack of people to actively participate in the opposition movement, and organisational limitations, the small group of

committed citizens co-ordinated a series of educational lectures in various parts of Adjuntas. The final event was to be a demonstration in the public square of the town, representing the first days of struggle against mining. However, apart from the organisers and their immediate family, virtually the only other people who attended the demonstration were the police. This failure prompted a lengthy and deep process of analysis: what was the best way to garner public support and spark interest by the citizens of Adjuntas in their own fate? The result was a realisation that local culture was the unifying agent. The group organised a number of cultural interest groups: a committee of artisans, musicians, minstrels, a children's folk dance group, sceneshifters, and other collaborators. In this way, the initial small group of engaged citizens diversified and multiplied.

Based on this, the Taller prepared the *Concierto Patria Adentro* (Inner Homeland Concert), performing traditional Puerto Rican music in neighbourhoods, towns, schools, and universities under the slogan, "*Sí a la Vida, No a las Minas*" ("Yes to Life, No to Mines"). The message was no longer elitist, but became understandable and friendly. At the same time, an extended campaign began that included press conferences, demonstrations, *chiringas* (kite) festivals, bulletins, murals, tree plantings and the gathering of thousands of signatures. Through cultural and community activities, awareness of the mining situation grew and the citizens of Adjuntas steadily became more and more determined and committed to preventing ecological, economic, and social disaster, even in the face of continued government repression and intimidation.

After six more years of struggle and continuous activities, the group recorded a partial victory when the government stated that it would abandon mining plans. One key reason for this about-turn, admitted by the government and mining companies, was the opposition generated by the Taller de Arte y Cultura—Casa Pueblo. However, lands continued to be classified for mining purposes; clearly the mining option had been deflated but not yet defeated.

Building Casa Pueblo's infrastructure: a community effort

As the struggle continued to defend natural resources and for self-determination, a project started that transcended negation and destruction, and instead affirmed the values that reinforce self-esteem. In 1985, the Taller de Arte y Cultura purchased and renovated a large old house and transformed it into a new home for Puerto Rican culture—Casa Pueblo. Casa Pueblo houses a room for exhibitions and cultural activities, a library, a shop selling local handcrafts, administrative offices and accommodation for external collaborators so they can stay and contribute to projects. Casa Pueblo operates on solar energy, possesses a weather station in one of its forests, as well as a hydroponics garden and a butterfly garden with nectar and host plants where the complete life cycle of Lepidoptera can be appreciated.

Towards financial self-sufficiency

Through the process of establishing a viable organisation, it became evident to the volunteers at Casa Pueblo that economy is a fundamental aspect in shaping social

action, allowing for self-sufficiency and thus independence and self-determination. With this awareness of the link between economy and freedom, three initiatives to ensure Casa Pueblo's economic self-sufficiency were born:

- Café Madre Isla (Madre Isla Coffee)
- The community store
- The Madre Isla Farm Ecotourism Project

Café Madre Isla promotes a culture of community collaboration and a commitment to social change. It depends on volunteer labour for processing, packaging and distributing coffee from mountain farms. It has created many jobs, and attracts hundreds of people each week to Casa Pueblo and the surrounding area's restaurants and shops. It has generated capital that enables the organisation to develop its infrastructure, fund new initiatives, and support environmental research.

The community store has grown steadily. The shop creates several direct and indirect jobs, and artists and local producers of natural soaps, handicrafts and other items benefit from a permanent market. A fare and equitable trade has been achieved between suppliers, the organisation and the ultimate beneficiaries. This is not just a regular store; it is a place to foster extended educational and organisational processes in which the customers engage in Casa Pueblo's work. Additionally, ordinary residents of Adjuntas benefit from the thousands of visitors that Casa Pueblo receives each year and who patronise local businesses like these.

The Madre Isla Farm Ecotourism Project combines agriculture with tourism, ecology with economy, and community labour with solidarity. Madre Isla Farm includes rustic cottages to accommodate national and international visitors. Furthermore, the facilities act as logistical support for other community activities, including residential university courses, summer camps for students of public schools in other areas, and a residence for exchange programmes, such as the service learning programme Casa Pueblo maintains with Michigan State University. Fees for using the facilities vary, depending on the financial solvency of users. Often they are free of charge for students, workers and people who approach Casa Pueblo wanting to support its community-based projects. This pricing flexibility enables the organisation to observe certain ethics of social justice while achieving the target operations of the ecotourism enterprise.

A new chapter in the mining conflict

In 1992, the same government in Puerto Rico that had dismissed mining plans in 1986 signed a new mining agreement with Southern Gold Resources. This time, with its accumulated experience of community-based management, Casa Pueblo took swift and adept action to change the government's policy towards open pit mining, once and for all. The group decided on a strategy that would include the active and visible participation of student, religious, civic, cultural and environmental sectors. This strong effort at the local level was reinforced with a national publicity campaign involving the press, radio and television. The community organised the *Foro del Pueblo* (People's Forum), a public hearing with an invitation to the Secretary of the Department of Natural and

Environmental Resources (DNER). After the Secretary presented the government's position on mining, a panel of local people including an engineer, farmer, doctor, teacher, priest and 15 children asked questions and pointed out the weaknesses of the DNER's plan. Casa Pueblo's approach demonstrates the importance of transforming public fora from passive lecture audiences into true dialogues.

The community held many other events, such as cultural fiestas, concerts, and conferences at schools and universities. Also of real impact was a series of interviews published by the local press, presenting the opinions of Casa Pueblo and of the government. To top it all, a press conference called *desde el cielo* (from the sky) was held, during which a national television station broadcast the image of more than 800 students "writing" "No to Mines" with their bodies in their high school car park. These few words underlined the growing participation of the community and their unequivocal opposition to the destruction of their environment.

Community processes require imagination, creativity and organisation, as well as a means of expression that avoids self-righteousness and is open to debate, criticism and self-reflection. And above all, they require solidarity. In 1995, hundreds of people took to the streets of Adjuntas and marched to the top of the most important local mineral deposit to plant trees and so begin the restoration of the land from mining exploration activities. Their intention was firm and their message was clear: "We have already decided, No to Mines". Days later, the government reversed its long-standing policy and passed Law no. 1171, prohibiting open-pit mining anywhere in Puerto Rico. It was the solid stance, the grassroots struggle, and the unwavering shared position of ordinary people that were ultimately able to change national public policy.

From mines to forest

In 1995, after defeating the "economic development" model based on destructive mining, Casa Pueblo began a campaign to designate the former mining area as a forest reserve. This involved drafting a proposal whose scientific and social content was valid and understandable to ordinary people. The organisation's justification for designating a forest reserve lay in the value of the lands themselves, their location between other forest units (thus creating a biological corridor), and their importance in protecting the headwaters of water basins.

Even more difficult than drafting a proposal proved to be designing a strategy to implement it. It was evident that many of the people who participated in the anti-mining campaign did not feel the same motivation for forestry and their participation was limited. The tradition of the protest struggle against negative forces had become well rooted, but the culture of proposing positive action needed more practice, understanding and development. It is one thing to oppose a destructive project; it is another to create from scratch an alternative positive project. As Nelson Mandela has said, "to be free is not merely to cast off one's chains but to live in a way that respects and enhances the lives of others."

In spite of many setbacks, the process developed slowly but surely, while the boldness of action, strength of argument, and prestige of Casa Pueblo came together. A year later, and after an intense public fight and continued discussions with the DNER, the govern-

ment came to favour Casa Pueblo's proposal to transform the former mining-designated area into a legally-protected nature reserve. Finally, and through community initiative, the long process concluded, prohibiting mining and turning the "project of destruction" into the new forest unit *Bosque del Pueblo* (People's Forest).

Bosque del Pueblo and community-based management

The great Puerto Rican philosopher and freedom-fighter María de Hostos once proposed the need for establishing in the conscience not only the notion of claiming rights, but also of putting into practice "...the knowledge of rights and recognition of responsibilities." Committed to this principle, Casa Pueblo worked to strengthen individual initiative as well as social co-operation when developing a community-based management model for *Bosque del Pueblo*.

This community-based management model is based on individual initiative, collective management and participatory democracy. It requires participation and collaboration among the local community, the forest's closest neighbours, and local and national administrations. This reintegration of the people with the forest has proven essential to extend conservation efforts beyond the currently protected areas. Furthermore, the co-operation of groups and organisations that contribute according to their capacities is necessary. The process requires the administrative structure to be adaptive and to enable the development of leadership, growth and learning of both organisers and participants. In Casa Pueblo's case, the core group heavily depends on the diverse expertise of volunteers. Experimentation is encouraged, allowing for much change and growth as well as knowledge gained from trial and error.

Casa Pueblo uses a decision-making process that does not unduly hamper the organisation's objectives with bureaucracy such as rigid voting procedures. The primary means of governance are dialogue and the inclusion of all individuals interested and involved in a particular initiative.

To achieve these goals, it is essential to maintain self-discipline and to cultivate devotion to voluntary duties. This is not an easy task, especially in a country where dependence is encouraged in so many aspects of life. This model is not the only and ultimate solution for resource management. Both its limitations and its greatness lie in the fact that it is community-based. People make it work through their voluntary participation—and therefore its outcomes are determined by the extent and limits of their contributions. To maximise the value of such an approach requires commitment, and prompt, efficient support. The goal is a broad management that involves communities intimately in the administration of their natural heritage, as a reaction to privatisation and globalisation.

Casa Pueblo's model of community-based management began six months after the forest was formally designated as a natural reserve. The first step was to create a community-based Management Board to supervise the management plan, which divided the reserve into three areas: (i) natural area for visitors; (ii) restricted natural environment area; and (iii) special protection area. The plan covers water, wildlife, vegetation, social and community environment, leisure, interpretation and education, forest facilities, research, cultural resources and landscape. Casa Pueblo built cabins for visitors,

compost toilets, interpretative paths, a playground for children, an open-air amphitheatre and picnic areas. In addition, the group began to carry out biological inventories, and established a permanent plot for monitoring biodiversity. This enabled them to assess the ecological succession in the forest and implement resource recovery practices to enrich the secondary forest with species of native trees, reforest sensitive areas, and control soil erosion. Finally, Casa Pueblo believed that ecological recovery encompasses the recovery of cultural heritage. The group re-established an indigenous ceremonial park from the pre-Columbian era that had been uprooted for mining exploration.

From a forest to ecosystem management

Casa Pueblo's management of the *Bosque del Pueblo* encouraged them to rethink issues of public policy for the conservation of natural resources at a national level. Throughout Puerto Rico, they saw unharmonious scattered "development", which lacked organisation or long-term financial vision, and which ignored the sustainability of the area's natural resources. As it is, water resources are already scarce in poor communities, aquifers are increasingly degraded, and there is widespread pollution of soil, unprotected water basins and fragmentation of forests. Such problems compromise Puerto Rico's future development, reducing the potential for self-sufficiency in a country already very dependent on external economies. Therefore, Casa Pueblo decided to add conservation strategies to the national agenda so as to increase the number and extent of protected areas. Before the designation of *Bosque del Pueblo*, Puerto Rico possessed only 4% of protected forest—far less than other Caribbean islands such as Martinique (70%), Guadalupe (36%), Jamaica (22%), Dominican Republic (19%) and Cuba (12%).

To achieve this, Casa Pueblo began a community campaign nourished by funds from Madre Isla Coffee, donations by friends of the environment and from the *Cooperativa de Ahorro y Créditos de Arecibo*. Altogether the campaign raised more than US \$100,000 to purchase 50.5 ha of forest of high ecological value. This forest protects the headwaters of the most important river in the country, supplying water to more than 25% of the population. Casa Pueblo was thus able to establish its own forest reserve, as a first step towards protecting a much larger area, the *Bosque La Olimpia* (the Olimpia forest).

In addition to purchasing its own land, Casa Pueblo and supporters from various sectors of Puerto Rico submitted a further proposal to the government, to create the *Fondo de Adquisición y Conservación de Terrenos de Alto Valor Ecológico* (Fund for the Purchase and Conservation of High Ecological Value Lands). The goal of this community strategy is to double the percentage of protected areas in Puerto Rico over the next 10 years. The government enacted this in 2003 as Law no. 268. The fund had an initial budget of US\$20 million with subsequent allotments of around \$5 million for the protection of sensitive areas. These funds were used to buy a further 364 ha of forest adjacent to the 50 ha already purchased, in order to establish the *Bosque La Olimpia*. This larger area of forest is also community-managed via Casa Pueblo. The fund has also enabled the government to incorporate new areas into the existing state forests.

Recognising the growing population density in the headwaters of many of the country's main rivers, as well as the excessive fragmentation of forests for urban, industrial and

agricultural activity, Casa Pueblo proposed and developed an even bigger initiative—a new landscape conservation plan. The *Plan de Conservación de Áreas Sensitivas para Adjuntas y Municipios Adyacentes* (Sensitive Areas Conservation Plan for Adjuntas and Adjacent Municipalities) was approved by the *Junta de Planificación of Puerto Rico* (Puerto Rico Planning Board) in 2004. The plan created the biggest conservation district in Puerto Rico to date—14,568 ha of land spread over 10 municipalities. It also created Puerto Rico's first biological corridor, joining Bosque del Pueblo with four other important regional forest units (*Guilarte, La Olimpia, Toro Negro* and *Tres Picachos*). Special zoning was achieved through important campaigns and dialogue with the Puerto Rico Planning Board, and this established special conservation districts, and prepared special guides for using non-authorised lands.

These efforts culminated in the creation of the Puerto Rican Biosphere Reserve in the *Tierras Adjuntas*. Using the management protocols associated with UNESCO's Natural Heritage programme, the Biosphere Reserve includes a mosaic of ecological systems comprising the community-managed forests of *Bosque del Pueblo* and *Bosque La Olimpia* as core areas, along with privately-held transition and urban areas. DNER made Casa Pueblo community manager of the Puerto Rican Biosphere Reserve in 2005. Community management must ensure: (i) the conservation of genetic resources, species, ecosystems and landscapes; (ii) economic and human sustainable development of people living in the reserve; and (iii) research, education, training and observation to support this conservation and sustainable development. The guiding principle of the Puerto Rican Biosphere Reserve is that the local population takes a constructive leading role and is not excluded from managing the land.

As an integral part of the participatory management initiatives in the areas of transition, Casa Pueblo designed a programme called *Reservas Forestales Familiares* (Family Forest Reserves). These reserves lie within the Biosphere Reserve but are in private hands. Thus, farmers and landowners, together with Casa Pueblo and the DNER, can manage land in ways that will be harmonious with nature. This new community strategy supports landowners' own desire to conserve the environment. Initially, around 1,214 ha of land were included as this type of reserve, representing more than 4% of the territory of the Adjuntas municipality. Instead of imposing prohibitions and bans, this plan encourages good management of agricultural properties, family forests, and sources of renewable energy, and gives concrete suggestions on how to achieve this.

Education for change

In 2003, Casa Pueblo started an environmental education programme, the *Instituto Comunitario de Biodiversidad y Cultura*—ICBC (or the Biodiversity and Culture Community Institute). This was launched together with the Washington Irving Elementary Community School of Adjuntas and the University of Puerto Rico at Mayagüez. It also operates with the support of parents, Casa Pueblo's volunteers, university professors, scientists and artists, and with the participation of schoolchildren.

ICBC-Casa Pueblo is an education programme that spans the elementary school level to university level, integrating co-operative education with community self-management, while promoting a humanist integrated learning in the "natural laboratories" of the

Puerto Rican Biosphere Reserve. From a foundation of practical experiences, it supports the harvesting of knowledge in order to promote change. The project offers individual transformation through re-education. In other words, students learn to critically analyse traditional ideas of what development is, and of what conservation is (too often cordoning off a "natural area" and never going near it or engaging with it), and then learn to value knowledge that might not necessarily be taught in a classroom. This knowledge is then integrated with leadership to seek transformation at different scales. Casa Pueblo believes that education is much more than simply learning to read and write. At the ICBC students engage with difficult concepts, learn about and preserve their own culture, and use scientific investigation in different aspects of life.

In addition to learning in the *Bosque del Pueblo* and *Bosque La Olimpia*, lessons are conducted in Casa Pueblo's room of co-operative learning, research laboratory, hydroponics laboratory and plant nursery. An auditorium with access to real-time videoconference enriches the educational experience through meetings with professors from the university. The Lepidoptera Garden, weather station, solar energy system and Casa Pueblo's other facilities all contribute to an inclusive and dynamic education. More than half of the students enrolled in the public school benefit from these programmes or other special activities, such as the annual arrival of the migratory bird and symbol of *Bosque del Pueblo*, Julián Chiví (*Vireo altiloquus*).

One of the most outstanding contributions by student researchers in *ICBC*-Casa Pueblo was their participation in the development of a conservation plan for Adjuntas. This plan includes an ecological belt around the urban area, special protection of water basins, and conservation of the landscape. These students also took part in the process of promoting and acquiring the core area of 50 ha of land in the headwaters of Río Grande of Arecibo.

During the summer, tens of students from high schools of coastal areas attend and residential university courses are offered. With such programmes, Casa Pueblo promotes an academic environment at several levels in the community while attracting scientists who want to take part in its management activities. In 2007, Casa Pueblo strengthened the relationship between science and culture by establishing an artist residency programme: "humanising education through art". Through agreements with the *Instituto de Cultura Puertorriqueña* (Puerto Rican Culture Institute) and Prinardi Gallery, Casa Pueblo hosted a renowned painter who lived at Casa Pueblo and offered painting classes to students of the Washington Irving Elementary School and the community in general. By strengthening observation of the surroundings, recognition of the diversity of forms and colours, and sensitivity to the nature around them, painting has contributed another facet to the rounded leadership skills needed for protecting and using the environment.

Renewable energy: increasing the reserve's ecological services

In co-operation with the School of Engineering at UPR-Mayagüez, Casa Pueblo has developed a research and education programme on renewable alternatives for electricity generation, in order to eliminate dependence on sources of costly and non-renewable energy resources such as oil, gas and coal. Since 1999, Casa Pueblo itself has operated with solar energy, and has recently developed a system of solar water distillation. The *Modelo*

de Interconexión de Energía Renovable para las Comunidades (Model of Interconnection of Renewable Energy for Communities) is the first example of technical progress in Puerto Rico in integrating renewable energy within communities. The community is transforming itself from energy consumer to energy producer—a supplier of clean energy in a setting of social justice while reducing the environmental impact of burning fossil fuel.

The supply of renewable energy to national electricity supply grids occurs in European countries and in many states of the USA, but public policy in Puerto Rico supports a monopoly of non-renewable sources, thus undermining this option. Because Puerto Rico currently depends on fossil fuels for more than 99% of its energy, the Casa Pueblo model consists at this stage of installing photovoltaic systems which convert solar energy to electricity that could then be fed into the country's national distribution system. During the day, unused solar energy would enter the network, while during the night households would use energy generated by other sources. This avoids the costs of storing energy in batteries and the environmental costs of disposing of them. Further research on this topic will investigate how much electricity generation based on fossil fuels may be replaced with renewable generation in the communities and the value of CO₂ emissions prevented. In August of 2007, the government of Puerto Rico approved net metering, a public policy change which will help the initiative to take off. Casa Pueblo will be the first community-based organisation with a state-of-the-art renewable energy "lab" that meets this new challenge. Carbon trading and other potential financial agreements are now real possibilities for the community.

What underlies Casa Pueblo's success?

One of Casa Pueblo's most important achievements has been to mobilise support from distant areas in Puerto Rico and abroad to help Casa Pueblo improve the local economy and education. More than 20,000 people visit each year, making Casa Pueblo a national community school. Poverty is a serious problem throughout Puerto Rico (nearly half the population lives below the poverty level); a poverty of spirit and self-esteem is also prevalent. Many people suffer from the psychological consequences of a lack of gainful work. Puerto Rico's traditional cultures are quickly vanishing to make way for Americaninfluenced media, music and values. So entrenched is this, and so fundamental to many of the problems the community faces, that Casa Pueblo hopes through its work to invigorate people's spirit, culture, knowledge and empowerment. Through its community-run coffee enterprise and the massive amount of visitors it brings to the area each year (20,000 into a municipality of 17-18,000 people), Casa Pueblo nourishes the economic wellbeing of the area and serves as an example of a self-sustaining and well-run organisation. Through its environmental campaigns, Casa Pueblo nourishes the area with unpolluted water and forests that will now be able to be enjoyed for generations to come. Through its continuous support for the local public school and initiatives for the community's students, Casa Pueblo nourishes the intellect, knowledge, and independence of the next generation. Moreover, through its myriad cultural activities each year, Casa Pueblo also nourishes the spirit of the people. For all of these reasons, Casa Pueblo has been cited as a model of change and hope in a world full of pessimism and empty of feasible alternatives.

Casa Pueblo's successes have been achieved for three basic reasons:

- 1. Casa Pueblo has gained prestige and recognition at local, national and international levels; in 2002, the founder and director of Casa Pueblo, Alexis Massol, won the International Goldman Environmental Prize. This prestige was acquired not with words, but with decades of action in community struggle, transformation and victory.
- 2. Casa Pueblo has consistently provided viable alternatives that are environmentally healthy, socially compatible, and economically feasible, and that also reinforce the values of Puerto Rican culture.
- 3. Casa Pueblo's strategies are coherent, well-planned and above all brave, carried out by many people committed to the future of their homeland.

Managing donor relations

Too often, management guidelines end up being dictated by the donor agencies or foundations, or at least compromise the direction and form of the recipient's initiatives. Instead, external funds invested at community level should aim at strengthening community management, and not be a public relations exercise for external investors that deprives the true agents of change of their motivation and kudos. Independence from external influence has been another important factor in Casa Pueblo's success. Casa Pueblo's large degree of financial self-sufficiency has helped to ensure this. To date, donations from the cooperative sector, some private entities, and from the people themselves have funded Casa Pueblo's community activities. Casa Pueblo's organisational governance and track record mean that external groups contribute with matching funds or donations, but without attempting to impose an agenda or seek public recognition. All donors have understood that rather than dictating local agendas they would be promoting local agendas.

Difficulties faced in community-based self-management

Casa Pueblo decided, from the beginning, to develop a community-based management style of its own. However, this decision generated repression from the state, isolation, and attacks from opportunistic parties and politicians who wanted to maintain an unequal relationship between community and government. Casa Pueblo's opposition to mining also caused conflict with those sectors which supported mining or which resisted change to public policy provoked by grassroots groups. Lack of faith in the ability of the community to attain empowerment and leadership contributed (and maybe still contributes) to a certain reluctance among some sectors of the community to really commit to change. These mixed feelings led to marginalisation and conflict at all levels, including within the traditional family structure. By diversifying the range of its supporters, including more and more people who had a stake in the issue, and through gaining the trust of the people through openness, transparency, and inclusion of the community in the decision-making process, Casa Pueblo eventually overcame these

difficulties. In fact, the strength of character of the organisation and its members was bolstered as a result of such repression and conflict.

None the less, resistance, arrogance, inefficiency and idleness of government lawyers and administrators in key offices of the DNER delayed, obstructed and put at risk the initiatives that later positively and effectively changed the country's public forest policy. Currently, intermediate levels of government and sectors that feel threatened by the scientific use of forests and by the effectiveness of the forest management seem to be the new constraints to Casa Pueblo's initiatives.

One of the enduring obstacles is Puerto Rico's colonial political status, which condemns the country to international isolation. Exclusion from international fora and global community networks, as well as the lack of access to external funds from international donors and programmes, hinders important development and expansion of the organisation. Casa Pueblo continues to struggle to defeat such international exclusion; it is slowly winning, but it requires more external understanding and support. After a long process the Puerto Rican Biosphere Reserve was recognised in November of 2007 as a new unit in the Latino-American and Caribbean Network (LAC-Net) of the Model Forest Network. This important designation—the result of a sustained bottom-up process — has begun to reverse Puerto Rica's international isolation.

Next steps

Most groups that appear to fight specific battles often disappear once the principal issue is resolved. Institutional evolution is invariably needed if the organisation is to keep contributing to the community and instigating change within society. The fact that Casa Pueblo has thrived for over 28 years is evidence that internal change for social transformation can work. From the mines to the forest; from the forest to the house; from the house to the school; from the school to the economy; from the economy to the reserve; from the physical reserve to the psychological freedom that enables us to embrace destiny marked by community victories.

So what is next for Casa Pueblo?

The first step is to strengthen and protect the goals achieved to date. On 12 May 2007 the Casa Pueblo Trust consolidated a legal structure that will protect its assets in perpetuity. This measure ensures that the properties and many projects will continue to be handled appropriately in the future, and that private areas of high ecological value will be protected through non-governmental and self-determined initiative.

The second step is to improve the management structure to make inter-generational change easier. Casa Pueblo has amended the Board of Directors to include new local and national actors, and created a supervisory technical committee as well as a Management Board for the Puerto Rican Biosphere Reserve, composed of scientists, artists, traders, government, teachers, students, universities, workers, farmers and others. To reinforce these developments, Casa Pueblo has formed a stronger alliance with the University of Puerto Rico by appointing a permanent professor at Casa Pueblo.

Finally, horizontal growth will be one of the most important challenges in Casa Pueblo's next stage. The new working structure aims at multiplying the stakeholders of the project and at the same time enabling them to become actors in a process of social transformation within nearby and distant communities. The organisation will rely upon the participation of farm owners within the Puerto Rican Biosphere Reserve, who will be part of the programme of Family Forest Reserves; continuous educational programmes in the arts and sciences; and the promotion of the production of renewable clean energy. Instead of a top-down funding model paying for community actions, the intention is to establish a financial structure that should enable the community itself to catalyse other community initiatives with their own community-led agendas. Seeking alternative forms of financing and sustainable economic ventures will enable Casa Pueblo to achieve this kind of scaling-up in the future.

With these goals in mind, Casa Pueblo foresees an optimistic future. The launch in 2008 of Radio Casa Pueblo WOKI 1020 AM, the first community-based radio station on the island, has certainly catalysed further changes as new economic and educational opportunities emerge to promote Casa Pueblo's role—a local organisation influencing national and indeed international agendas.

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