



Community-based organization and participatory planning in south-east Mexico City

Pedro Moctezuma

Pedro Moctezuma Barragan is Director of UAM-Comunidad Sierra Nevada and lives with his family in Zenchantli, an ecological house situated under the active Popocatepetl volcano. From there, he and his wife Elaine Burns undertake community organizing, planning and development projects. He is founder and member of the Union de Colonos de San Miguel Teotongo (since 1975), and member of the Movimiento de Solicitantes de Vivienda Cananea (since 1983), the Movimiento de Solicitantes de Vivienda Benito Juarez (since 1987), the Coordinadora Nacional del Movimiento Urbano Popular (from 1980-1991), the Union Popular Revolucionaria Emiliano Zapata (since 1987), the Frente Continental de Organizaciones Comunales (since 1987), Tezcaltepetl (since 1995), the Consejo Social Iztaccihuatl (since 1997) and the UAM-Sierra Nevada Project (since 1997). He is also a professor and researcher at the Universidad Autonoma Metropolitana (UAM) in Mexico City since 1980 and is currently undertaking a PhD at the University of Liverpool (UK). He is author of *Despertares. Comunidad y organizacion urbana popular en Mexico 1970-1994* and has also written widely on Mexican social movements, urban problems, democratic struggles and planning.

SUMMARY: *This paper describes the experiences of community-based organizations in settlements and municipalities in south-east Mexico City in participatory planning and in the development of local projects and new employment opportunities. In order to do so, popular groups joined forces with students and professionals. They sought to demonstrate new models of urban and peri-urban development that met their inhabitants' needs while avoiding the chaotic informal processes by which most low-income settlements develop. They also sought to ensure good natural resource management and the protection of their rich and diverse cultural heritage. Last but not least, they searched for new approaches to community-based organizational replication in harmony with the environment. This paper describes the many projects implemented in San Miguel Teotongo, Cananea and Sierra Nevada which included new schools, health centres and community museums, settlement lay-outs with planned and installed infrastructure, markets, the protection of green areas and historic sites and the development of new agricultural products and eco-tourism. It also included community-based mapping of municipalities to allow better management of natural resources. The paper also describes how these initiatives have developed over the last 20 years and their role within Mexico's complex political changes, including their relations with different political parties.*

I. INTRODUCTION

OVER THE LAST three decades, important pioneer experiences of community-based organization and action have developed in San Miguel Teotongo, Cananea and Sierra Nevada in the south-eastern zone of the Mexico City Metropolitan Area (MCMA). These emerged at critical moments within the periods of cultural shift and democratic transition. They also developed within conditions of chaotic expansion of the informal settlements on the borders of Mexico City's built-up area. Such experiences were able to grow within the power vacuum that existed in one of the world's most populous megalopolises. The process first occurred at the interface of the large-scale, informal and unplanned popular settlements in the urban zone of Iztapalapa, and also in the rural areas at the periphery of south-eastern Mexico City overlooked by the Popocatepetl and Iztaccihuatl volcanoes.

These areas were inhabited by traditional forest and agricultural communities, each with their own important and relevant cultural and architectural patrimony. These collective organizations had their roots in

earlier communal culture and associative experiences. The decay of traditional associative modes in Mexico also led to new forms of organization that were formed by migrants, women, young people and the unemployed or underemployed. The local movements have their origins in small and diverse groups with different socio-cultural, ethnic, class and age backgrounds, different gender roles and different levels of formal and informal education. They have also included different orientations with regard to external collaborators. The soul of the initiatives resided in popular groups that joined forces with students and middle-class professionals to promote collaborative efforts calling for environmental protection and local community development. They also shared their experiences and wisdom with multi-disciplinary researchers to generate alternative models of development in both rural and urban settings.

Back in the 1970s, the urban movements developed in Mexico City within the context of a lack of effective political opposition to the one-party rule of the Partido Revolucionario Institucional (PRI) – a party-state founded in 1929 and in power from that time until its electoral defeat in July 2000 – and of a general ignorance of the scale and nature of the problems that chaotic urban growth and expansion were creating. In search of ways to transform their local environment, the movements developed into permanent organizations and the transformation occurred as the social movements grew in size and influence. The climax of this growth provided the groups that formed them with social support, inspiration and the strength to develop permanent organizational practices and build a social base. Their ability to convoke all the people involved in the problems – inviting them to join in an inclusive dynamic – allowed a convergence of wills and the development of community-based organizations. The strength of these experiences might have vanished as the social movements' influences waned, had they not channelled their energy into building permanent structures.

II. SAN MIGUEL TEOTONGO

a. The roots

IN 1970, A small group of indigenous migrants moved from the lost Sierra Mixteca town of Teotongo in Oaxaca and sought to develop a replica of their town on the sides of the Tetlalmanche volcano in Iztapalapa, on the outskirts of Mexico City. They named their new settlement San Miguel Teotongo. Soon after, a group of squatters were brought to this same place with the promise of a plot of land. They were migrant working-class families⁽¹⁾ who did not know that the operation, led by an official party leader, was fraudulent. Settlement took place on the borders of the federal district and the state of Mexico⁽²⁾ and no official action prevented the chaotic urban development that occurred. The illegal developers sold land with no infrastructure and with no neighbourhood plan. Within a few years, it had grown to be the largest single neighbourhood in Mexico City, with more than 65,000 inhabitants by the year 2000. To what kind of place did these migrants come?

b. Mexico City: an unsustainable megalopolis

The migrants from Oaxaca came to the south-eastern periphery of Mexico City Metropolitan Area (MCMA), an area that lies in a valley inside the

Address: UAM-Comunidad Sierra Nevada, Mirador 59, Col Centro, Tlalmanalco, Estado de Mexico CP 56700, Mexico; e-mail: verde@laneta.apc.org; also moctezum@liverpool.ac.uk

1. For more details, see Moctezuma, Pedro and Bernardo Navarro (1989), *La urbanización popular en la Ciudad de México*, Ediciones Nuestro Tiempo, México, pages 107-118.

2. The Metropolitan Area of Mexico City (MAMC) includes the federal district with 8.5 million people divided into 16 political-administrative units called *delegaciones* and with another 8.5 million people in 57 municipalities in the state of México.

3. The MAMC has added 3.5 million people to its population every decade since 1970. See Porras, A (1997), "El distrito federal en

la dinámica demográfica megalopolitana en el cambio de siglo" in Eibenzchutz, R (coordinator), *Bases para la planeación urbana en el área metropolitana de la Ciudad de México*, DDF-UAM. México.

4. Seventy-two percent of the city's total water supply is drawn from the aquifer underlying the central Mexican basin. The water from the valley's underground aquifer is being extracted seven times faster than it gets recharged. The water table has been declining and this dramatic fall in level has caused buildings and whole sections of the city to sink at a rate ranging between six and 40 centimetres a year. See Gomara, G (1999), "Hundimiento del valle de México", *Reforma*, 4 September. The Ministry of Natural Resources has indicated that the trend points towards a serious water supply crisis by the year 2010. See "Programa metropolitano de manejo de recursos naturales (1997). Factores críticos para la sustentabilidad metropolitana" in Burns, E (coordinator) (2000), *Atlas municipales de recursos naturales*, UAM-Consejo Iztaccíhuatl, Mexico.

5. This is the worst of all the city's environmental problems. Due to its high altitude, Mexico City is subject to thermal inversions that trap emissions and waste, causing serious health and economic impacts.

6. The Panuco river, the valley's most polluted waterway, takes 2,000 tonnes of untreated sewage every day to the Gulf of México.

7. Valenzuela, José (1999), *Estado y políticas sociales en el neoliberalismo*, F Ebert, México DF.

8. Moctezuma, Pedro and Bernardo Navarro (1984), "Los fraccionadores clandestinos en San Miguel Teotongo", *Revista "A"*,

central Mexican basin, 6,800 feet above sea level and enclosed by mountains. The MCMA is located within a closed basin and has 17 million inhabitants.⁽³⁾ The city's capacity to sustain its population is precarious and there are many serious environmental problems, including a chronic lack of water supply,⁽⁴⁾ air⁽⁵⁾ and water⁽⁶⁾ pollution and continuous deforestation. There is a very large housing deficit and 70 per cent of the population seek housing through access to irregular land and using self-help to slowly build their houses (which usually takes more than ten years). The real purchasing power of wages has fallen by 66 per cent⁽⁷⁾ over the last 25 years, further limiting the capacity of households to find land and build homes. Even the cheaper land now costs more than the majority of people can afford. The city's chaotic urban growth created new needs and affected the living conditions of millions of people. It abruptly changed land uses, created enormous pressures on the commons and also caused shortages in housing, urban services and infrastructure.

Mexico City's expansion has been particularly rapid to the east, as low-income inhabitants moved there. As polarization between the highest- and the lowest-income segments grew, the segregation of the city deepened, especially in Iztapalapa. In the 1970s, San Miguel Teotongo was the fastest-growing area of irregular settlement in the MCMA.⁽⁸⁾

c. Formation of the Unión de Colonos in San Miguel Teotongo

In 1974, a group of San Miguel Teotongo inhabitants discovered that their purchase of land was not legal. Since they also faced a lack of water, schools, clinics, transportation and basic infrastructure in a "rocky hill under the volcano", they decided to ask for support from students of the national university. They then worked with student groups and convoked all the inhabitants of San Miguel Teotongo to join together to create an inclusive community based organization. This organization, the Unión de Colonos de San Miguel Teotongo (UCSMT), was founded on 16 March, 1975. First, it struggled to obtain access to education and then to water and electricity. Once the organizational nucleus was formed, spontaneous purposeful planning became the key to sustaining the organization. As it matured, systematic planning helped in its internal consolidation and in the ability of the community organization to prevent unplanned urban development and to plan what plots of land should be used for public services and infrastructure, as well as preventing illegal plot sales. The Union de Colonos's collective tasks produced an amazing story of common labour and conviviality to promote and self-build needed infrastructure; they also defended half the surface of San Miguel Teotongo from being sold illegally or being squatted.⁽⁹⁾ Faced with the absolute lack of official regulations, norms or plans, and under conditions in which participation was not only disregarded by the government but continuously repressed, the neighbourhood's inhabitants developed their own culture of self-management.

The improvement of the neighbourhood was undertaken mainly through voluntary work (called *faena*, a basic indigenous tradition), as were the assemblies, the rituals, the *fiestas* and rites of passage and the markets (*tianguis*). Some of the students joined the work and the communal life, working as teachers and accompanying the group. The new community developed in the midst of conflict with illegal developers. It was based on the participation of migrants from 16 different provinces of

Mexico who shared a similar “cultural matrix”.⁽¹⁰⁾

The first public school was built on a piece of land designed for that purpose. A provisional electricity supply was installed and then electricity provision was contracted with the Federal Electricity Company (CFE). Streets and avenues were built, piped water introduced, a market was opened and eventually various green areas in ecologically dangerous spots were rescued. Later, the Ixchel health centre was organized by women. From 1975 to 1995, 27 other public schools, three more health centres, three cultural centres and museums and a post office were established.

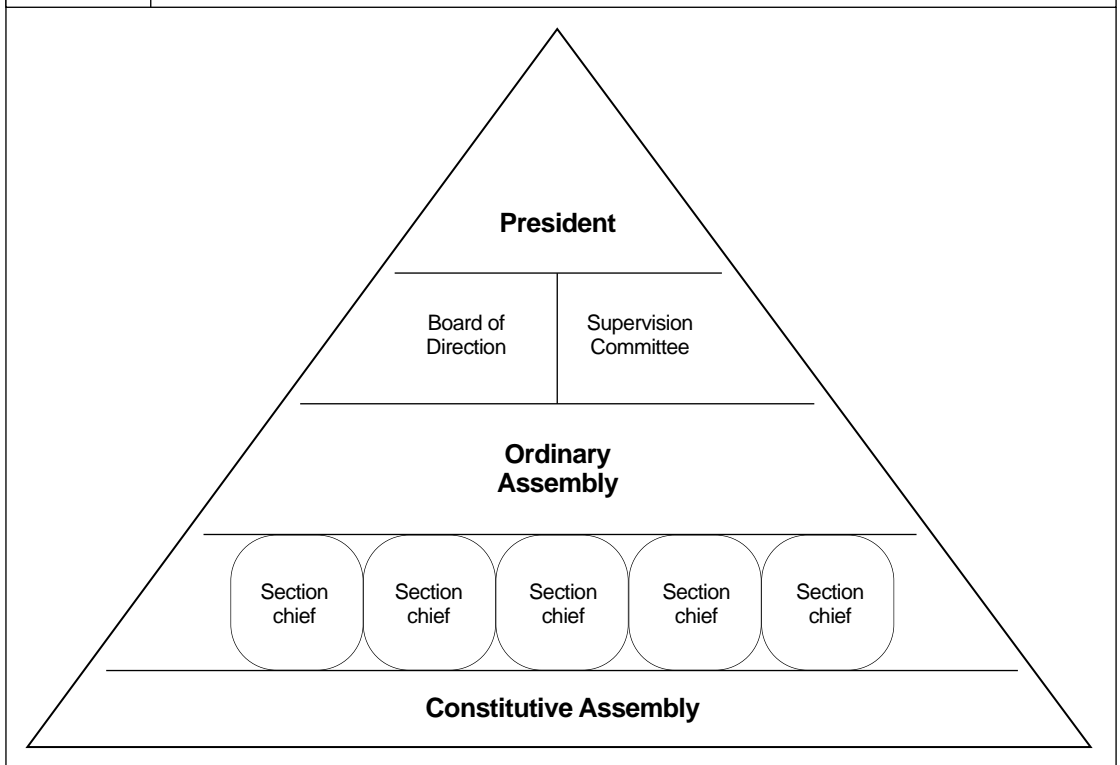
At the same time, the traditional pyramidal organizational scheme adopted when the Union de Colonos de San Miguel Teotongo was institutionalized (see Figure 1) affected the relations between the promoters. As soon as the UCSMT consolidated, the community-based organizations began a permanent struggle to ensure that “decision-making” was undertaken in a democratic way. Horizontal decision-making was encouraged, challenging the hierarchic models of the dominant political culture. One indicator that demonstrated this was the key role taken by women. They had to avoid the conventional, pyramid structure that mirrored the Mexican political culture under the Partido Revolucionario Institucional (PRI). Under such a structure, power was centred on the person of the “president”. The official decision making process was vertical and Mexico City citizens were not even allowed to elect their local authorities.

Universidad Autonoma Metropolitana-Azcapozalco II (11), pages 149-168.

9. Brugada, Clara (1997), “Avance en la organización social de San Miguel Teotongo” paper presented at the seminar “Una ciudad para todos”, Museo de la Ciudad de México, May 28, 1997.

10. Moctezuma, Pedro and Bernardo Navarro (1989), *La urbanización popular en la Ciudad de Mexico*, Ediciones Nuestro Tiempo, México, page 113.

Figure 1: Mexican traditional pyramidal organization adopted by Union de Colonos de San Miguel Teotongo (UCSMT) from 1975 until 1982, when the scheme was changed to promote democracy.



11. Akin Aina, Tade (1990), "Understanding the role of community organizations in environmental and urban contexts", *Environment and Urbanization* Vol 2, No 1, April, pages 3-7.

12. One article which addresses the national coalition in Mexico is Dávila, Julio (1990), "Mexico's urban popular movements: a conversation with Pedro Moctezuma", *Environment and Urbanization* Vol 2, No 1, April, pages 35-50.

13. Brugada, Clara (1986), "La mujer en la lucha urbana y el estado", *Cuadernos para la Mujer*, EMAS, México.

d. National and regional coalitions

The organization could not exist in a vacuum. The local nature of community organization, combined with the fact that they focused on specific issues, limited their capacity. If isolated, the UCSMT would be too weak and its actions too sectoral to have much influence.⁽¹¹⁾ From 1976, it developed relations with similar organizations to create a city-wide coalition of community organizations in Mexico City. The steady increase in the formation of independent organizations in Mexico, especially among peasants, teachers and the urban poor, favoured the formation of massive local, regional and national coalitions called *coordinadoras*. The emergence in 1980 of a National Coalition of Urban Popular Movements (Coordinadora Nacional del Movimiento Urbano Popular – CONAMUP⁽¹²⁾) strengthened the tenants unions, popular neighbourhood unions and popular education groups created in the Valley of Mexico in the 1970s and 1980s. In 1981, the need to halt mass evictions in Mexico City led to the creation of a regional coalition in the Valley of Mexico.

Women played an important part in the movement, addressing issues such as the high cost of living, the lack of milk supply for infants or *tortillas* for the family. These issues are the traditional domain of mothers and housewives, to ensure the social reproduction of the family. One of the most important effects of the urban popular movements has been the empowerment of women through their mass participation and their joint leadership within the organizations. Women constituted the majority of participants in the urban popular movements and were also able to organize on their own through a regional coalition called Coordinadora Regional de Mujeres del Valle de Mexico. There was a consistent practical and theoretical effort in this stance, later known for their "popular feminism" approach.⁽¹³⁾

The social movements questioned the complicity of local authorities with illegal land developers (and land speculation) and the lack of basic services. They also questioned the Mexican state authoritarian scheme altogether. Mexico City popular movements were particularly well rooted in Iztapalapa, the most densely inhabited area within the federal district. To the south-east of this, Sierra de Santa Catarina was home to half a dozen popular organizations and to the movement's stronghold: San Miguel Teotongo.

February 1982 marks the onset of Mexico's economic crisis, with recession, massive budget cuts, layoffs and devaluations after every presidential election and the accelerated deterioration of living standards for the majority. The *coordinadoras* responded together and built a broader coalition with labour unions and political organizations to fight against structural adjustment. At the same time, throughout 1982, the UCSMT developed a participatory dynamic for its neighbourhood development programme and underwent profound internal democratization, turning the organization's traditional pyramidal structure upside down and bringing in another, horizontally structured one, led by a collective council.

Its ability to limit the chaotic urbanization in the area strengthened the social organization and allowed the experience of community-promoted territorial planning to grow. Corruption and autocracy engrained within the government in the *delegacion* in Iztapalapa were challenged by a range of community-based organizations. The appearance of new forms of activity among a previously quiescent group evoked a response from those in

power who wanted to re-establish their control. At a time when the UCSMT was under serious threat at the local level, and the strength and prestige of CONAMUP was at its peak from the national perspective, internal contradictions, induced by external agents, eroded the harmony within the Unión. During 1983, conflict resolution became a vital duty for the collective leadership.

A plan to destroy the UCSMT was set in motion on September 18, 1985. But fate took things in a different direction when, the following morning, a major earthquake destroyed large areas of Mexico City, leaving more than 100,000 families without shelter and killing thousands of people. Community-based organizations from all points of the compass had a central role in the rescue tasks and in the reconstruction of damaged areas. From that moment on, the urban popular movement was officially recognized as an important part of Mexico City's life. At the same time, there was a shift in the political strategy of the movement. Instead of "fighting a common foe" and entering into confrontation, the organization decided to promote a proactive approach that included a deeper involvement in technical and legal matters and a reorganization within UCSMT. Furthermore, although surrounded by its opponents, the movement made a breakthrough by promoting a process of organizational replication, building Cananea, a new neighbourhood, on vacant land on the city periphery.

III. CANANEA

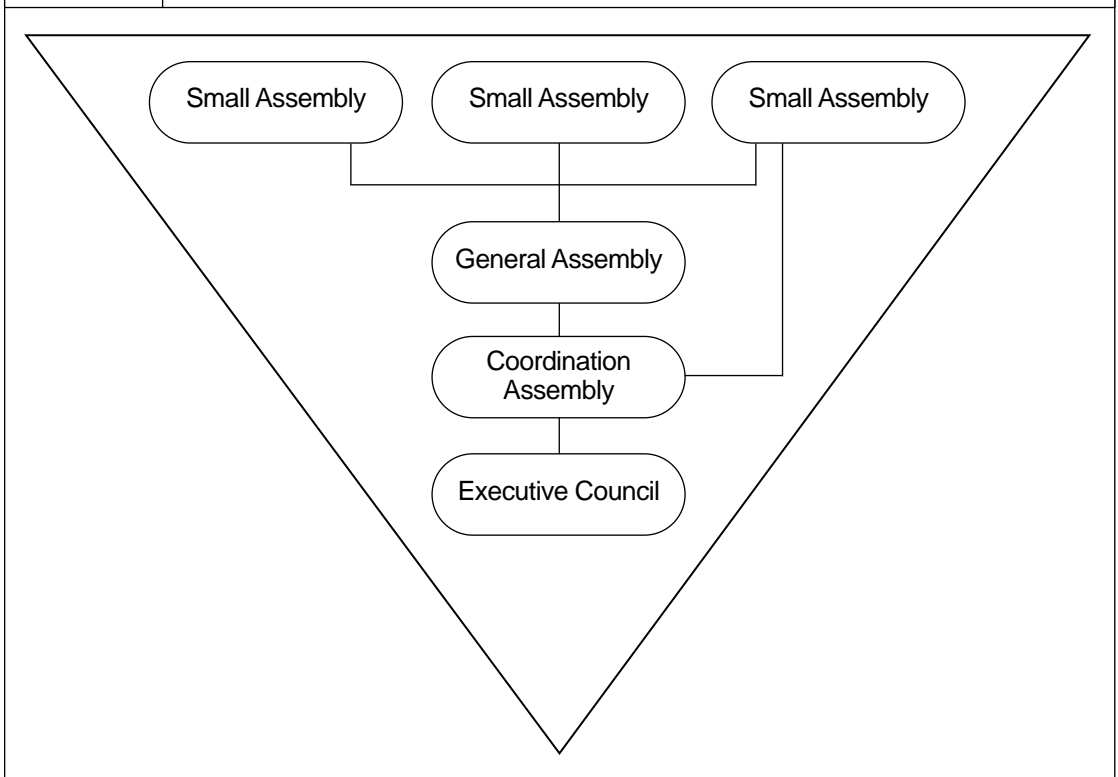
AFTER RECRUITING FOLLOWERS in San Miguel Teotongo and other neighbourhoods in Mexico City organized in CONAMUP, the Union de Colonos, Inquilinos y Solicitantes de Vivienda Libertad AC (UCISV Libertad) was founded in 1984, to struggle for housing. The existence of a highly coordinated network of urban grassroots organizations allowed their recognition by a group of democratic technocrats inside government institutions in charge of urban and social affairs – particularly the National Fund for Popular Housing (Fondo Nacional de Habitaciones Populares FONHAPO). They recognized CONAMUP as a valid representative of popular interests in the city and worked with them to finance low-income housing. The credit that FONHAPO provided was to the organization, not to individual families, and the members of the organization would participate in the control of the overall organizational, technical, administrative and financial process. The members would also provide their own labour for some of the site work and house-building tasks. The process of identifying the land, negotiating the purchase of El Molino (a 22-hectare site owned by FONHAPO) and the feasibility studies were done by USICV Libertad through an organizational scheme that allowed participatory design and planning (see Figure 2), with the advice of professionals from CENVI, a Mexican NGO chosen in an open competition to select a technical adviser from among the NGOs.⁽¹⁴⁾

The supervision of the construction and the assignation of the finished dwellings was also the organization's responsibility. The process sought to create new forms of urban environment, emphasizing community areas, workspaces, recreational areas and communal meeting places.

Small assemblies. This level brought together different brigades and was formed by 125-150 families. In the stage before the land was purchased, they included all brigades in the same zone of the city. There

14. To know more about the role of NGOs in supporting community organizations, and specifically CENVI in México, see Connolly, Priscilla (1993), "The go-between: CENVI, a habitat NGO in México City", *Environment and Urbanization* Vol 5, No 1, April; also CENVI (1988), "El programa de vivienda del Molino: una experiencia autogestiva de urbanización popular", CENVI, México.

Figure 2: The inverted pyramid organizational scheme used by Cananea Union de Colonos, Inquilinos y Solicitantes de Vivienda "Libertad" AC (UCISV Libertad).



were seven different zones in Mexico City: San Miguel Teotongo and, later, Maravillas Xalpa Comuna and Ermita in the east; Fuentes Brotantes in the south; Primera Victoria in the west; and San Lorenzo, very close to El Molino, in the south-east. During the period of construction, the brigades fulfilled tasks as a building team. After the settlement was developed, the brigades were transformed into blocks of 14 to 18 families, and small assemblies into sections of the new neighbourhood of Cananea.

General assembly. This is where all the decisions were taken according to an agenda that had been developed and discussed weeks in advance by the brigades and small assemblies. This included the organization's 1,087 family members. For important matters, after a discussion of the proposals, votes were cast in secret, with each active member placing their vote in a ballot box to prevent intimidation in the decision-making dynamics.

Every brigade appointed representatives to the coordination assembly to organize the execution of the general agreements through the brigades and small assemblies. Each brigade also appointed members to different commissions which fulfilled specialized responsibilities such as finances, technical matters, organization, press, culture and sports; there was also a conflict resolution commission called "*Honor y Justicia*". These commissions were coordinated by the executive committee.

The community-based organization combined collective self-help with concepts of popular alternative urbanization and profound local democ-

Box 1: Organizational stages for community organizations

The organizational stages in this type of community-based organization generally follow a pattern:

- At the outset, the energy of the movement is channelled into organizational concerns, not just “mobilizing” but also structuring. These local movements have their origins in small and diverse groups with different socio-cultural, ethnic, class, age and gender roles; they also have different levels of formal and informal education and of involvement with external collaborators.
- Such groups “fuse” in a convergence of wills, forming an embryonic nucleus searching for a vision that inspires and sets an example. This nucleus only develops into an organization if it can convoke all the people involved in the problems to join in an inclusive dynamic.
- The birth of the organization allows the community-based organization members to enter into a permanent struggle to undertake “decision-making” in a democratic way. This requires them to overcome conventional, pyramidal organizational schemes, to search for alternative information and to develop the ability to communicate regular and systematic information to the general public as a first step towards establishing democratic decision-making processes.
- The period of growth and expansion of the organization includes planning and design for infrastructure, services, housing, educational and cultural facilities, and environmental protection. The consolidation of the organization means the possibility of self-reliance, the application of internal norms and organizational charts. Reaching this stage is supported if there are positive and proactive community-building aims in the overall orientation of the process, allowing the change from “charismatic leadership” to broad representation, without denying individual charisma but linking it within the context of a wider, horizontal group.
- This consolidation favours material or democratic achievements and higher levels of gender, class, racial, age or cultural consciousness inside the community. Consolidation also makes possible external networking at the local and micro-regional levels and increases the possibility of collaboration (or of conflict with opposing interests) and of organizational replication.
- The reproduction or extension of the community-based organization involves further joining of forces with grassroots and community-based organizations and multidisciplinary researchers, generating alternative development in both rural and urban settings.
- In the long term, as in every other human process, organizational decay.

racy at the neighbourhood level.⁽¹⁵⁾ At the same time, its members refused to fall into dependent patterns and developed a new culture of self-determination and autonomy at the local (community) level. The inclusion of future users in the design and collective management of the housing production helped to devise new forms of collaborative work, conviviality, collective savings and democratic decision-making. The need for some continuity of policy and leadership and for the achievement of continuous consent and participation on the part of the ranks was addressed through the discussion of internal norms. The capacity to fulfil this need gave the organization autonomy and the process developed an intricate system of primarily internal relationships and activities. Between 1987 and 1989, the newly built community formed; it was named Cananea, after an historical 1906 strike that was a precursor to the Mexican revolution.

With an accumulation of experiences and a spirit of unity, the movements in Mexico City strongly converged in 1987, which the United Nations had designated International Year of Shelter for the Homeless. This had great importance for the social movements in Mexico. The National Meeting of the Homeless was held in Cananea in January 1987 and gathered together all the popular organizations in Mexico City. The Frente Continental de Organizaciones Comunes (FCOC), founded in Managua, Nicaragua in February 1987, organized a caravan of the homeless to represent it and visited 11 cities in the United States, holding a meeting in New York on 6 October, 1987.

15. Meffert, K (1993), “Cooperative self-housing: the case of El Molino in Mexico City” in Kosta, M (editor), *Beyond Self-help Housing*, Mansell, New York, pages 323-340.

IV. THE COMMUNITY ORGANIZATION IN THE FACE OF A CHANGING MEXICAN STATE

a. The key political changes

THE MEXICAN STATE has changed considerably in the last three decades. From 1970 to 1982, it was a socially-oriented regime, within the welfare state scheme, although authoritarian and ruled by a single party. After 1982, structural adjustment policies were implemented and state behaviour was ambivalent to successful community organizing experiences. It tolerated the pioneer cases such as San Miguel Teotongo and it promoted some experiences through its housing institutions, as in the case of FONHAPO. But its conservative ranks sought to suppress the organizations in Iztapalapa and prevent the organizations from growing or replicating. This made some organizations' commitment stronger, deepening their work and their development towards more complex planning and organizing schemes. This was possible when autonomy, ethical commitment, democratic values and ecological concern were inspiring the effort.

In 1987, Cuauhtémoc Cárdenas, the son of Lázaro Cárdenas (the most popular Mexican president, of the twentieth century) broke with the PRI because he opposed the government's neo-liberal shift and the anti-democratic way in which the president hand picked his successor within the PRI. He received enormous support when contending the 1988 presidential elections, although the extent of this support will never be known because the PRI unilaterally claimed victory and later destroyed the ballot papers. To channel popular opposition, Cárdenas founded the Partido de la Revolución Democrática (PRD) in 1989 as a social democratic political party struggling against the PRI's economic policy and fraudulent practices. The new party had important social support but showed little practical commitment to community organizations. It did not support the internal organization and local community-building but followed instead the conventional urban dynamics. With the exception of Mexico City, the political scenario began to be dominated by a conservative party, Partido Acción Nacional (PAN), founded in 1939 by an élite disenchanted with the Mexican revolution. At the time, PAN opposed secular education, the agrarian and social reforms, and the nationalistic stand of President Lázaro Cárdena's regime.

b. The ebb of urban popular movements

After the highpoint of their organization and influence in the 1980s, there was an ebbing of the urban popular movements. The government recognized the political parties as the only channels for political participation and as the means for conflict mediation. The parties began to manipulate the social movements in a *neo-corporativist manner*, enrolling leaders and organizations in exchange for candidacies and privileges. The popular movements came to a standstill and the organized communities were ambivalent when caught between submission to the PRD agenda and developing their own social organizations. CONAMUP and many social movements collapsed, although not those that were rooted in community-based organizational processes.

Meanwhile, after many initiatives and negotiations, the UCSMT began a participatory dynamic towards a neighbourhood development programme. This was formally approved in November 1992, along with

an environmental programme for the Sierra de Santa Catarina zone. Parallel to this, Cananea's community-based organization proposed a development programme in El Molino, which was approved in September 1993. With its approval, formal agreements validated 18 years of community struggle in Iztapalapa. Nonetheless, from 1991 to 1997, the government response was to surround Cananea with squatters and authorize new spontaneous neighbourhoods on its periphery, in order to make the new community barely distinguishable from other unplanned areas.

From 1994, the social organization kept promoting self-reliance projects and participatory planning, seeking to consolidate community organizations (see Box 2) and, at the same time, expand the scale of community-promoted participatory plans. It recognized the need to focus on larger areas in order to make an impact, by promoting urban and environmental development programmes that would help to transform the organization and use of space and the social situation of the areas where the chaotic unplanned urban expansion needed to be limited and changed.

Box 2: Community organizations and social movements

Community organizations develop as a result of successful social movements, if they are able to meet the following conditions:

- Build identity, consciousness and collective organizations that address their own needs.
- Put participatory planning into practice with a vision that goes beyond immediate issues, framing them in the context of broader themes such as community development, livelihood opportunities and ecological concerns.
- Use their own forces and resources, while demanding publicly supported projects related to water supply, health, education, infrastructure, housing and environmental issues.
- Build practices that allow for open access to information, and develop democratic decision making processes, changing the dominant (vertical and non-participatory) organizational patterns.
- Ensure accountability, not only in decision-making but also in the implementation of plans, the use of resources and the handling of power relationships among members.
- Promote productive, cultural and ecological innovations that allow the process to fight multiple obstacles and create consistent and permanent alternatives that are viable.

c. Transition towards democracy advanced after 1995

The opposition was allowed to contest elections under "fair game" rules. The victory of PRD leader Cuauhtemoc Cárdenas in the first democratic election for mayor of Mexico City was an important example of liberalization. However, contrary to the assumption that democratization leads to a flourishing of social movements as repression is removed and new channels of participation are opened up, it has been shown that in the immediate period between the end of an authoritarian regime and the start of a democratic one, the opposite may occur. Liberalization in authoritarian regimes can lead to a particularly high level of social movements activity which cannot be sustained once more "normal" conditions apply.¹⁶ This is even more so if the new government fails to address its commitments to society, thus frustrating the social aspirations that led to the change. Under conditions of an ebbing of the movement however, community-based organizations are more likely to preserve cohesion than spontaneous social movements. In the case of south-eastern Mexico City, the organizations continued to press the government in order to control the destruction of green areas, environmental pollution, high-risk

16. Pickvance, Chris (1999), "Democratization and the decline of social movements: the effects of regime change on collective action in Eastern Europe, Southern Europe and Latin America", *Sociology* Vol 33, No 2, page 353.

construction, water shortages and crime in one of the most populated and ecologically devastated areas of Iztapalapa, and to search for alternatives to unplanned urban sprawl.

V. SIERRA NEVADA: A NEW APPROACH TO COMMUNITY-BASED REPLICATION

a. Introduction

A KEY TO new organizational experiences in Sierra Nevada in the state of Mexico has been participatory research, a systematic process which involves people in the analysis of their own situation. This time the organizational experience included cultural heritage, downtown historical sites and ecological issues.

To broaden the community organizing effort so that it can succeed in some wider and more complex areas, the focus changed from the neighbourhood to the micro-regional level. It also crossed the urban-rural divide and had sustainable development as a reference point. The Project for the Zoning of the Metropolitan Area of the Valley of Mexico⁽¹⁷⁾ identifies western Sierra Nevada as an area of irrigation and groundwater replenishment, endowed with strategic forest resources but suffering from extensive and uncontrolled urban growth. The micro-region has 216, 499 inhabitants living in 11 municipalities located within three micro-basins.⁽¹⁸⁾

b. Tezcaltepetl: participatory research under the volcano

Participatory research started in Tepetlixpa, a community rich in traditions, located under the Popocatepetl volcano in the south of Sierra Nevada. The volcano, whose name means "Smoky Mountain" in *Nahuatl*, has cyclic eruptions which could affect the surrounding communities, although so far there have only been two preventive evacuations during periods of high activity in 1994 and 2000.

A few weeks after the volcanic eruption began in December 1994, a workshop on an analysis of the local situation was organized by the Casa de la Cultura. It attracted a diverse and heterogeneous group from a dozen municipalities and generated a common vision, with the formation of a network named Tezcaltepetl ("a mirror for our town") to work on local economic development as well as on cultural and ecological issues. After a period of centrally promoted initiatives, the members of the workshop agreed to build local bases, starting by working in their own municipalities. Since 1996, a festival called the "Community Theatre of the Volcano Region Encounter" has been held each year in different towns. In March, 1997 a community television station (TV3 Tezcaltepetl) was launched by the Comision Municipal para la Preservacion del Patrimonio Cultural de Tepetlixpa. A micro-regional movement began to take form.

c. Participatory planning in Tlalmanalco

Purposeful planning is very important to community-based organizations for sketching a future that promotes self-reliance and sustainable development, taking into account their social, economic and political context

17. Proyecto de Programa de Ordenación de la Zona Metropolitana del Valle de México (1997), DDF, SEDESOL y el Gobierno del Estado de México.

18. The Arroyo Nexpayantla micro-basin includes the municipalities of Tepetlixpa, Ecatzingo, Atlautla and Ozumba. The Rio Amecameca micro-basin includes the municipalities of Juchitepec, Tenango del Aire, Ayapango and Amecameca. The Rio de la Compania micro-basin includes the municipalities of Temamatla, Cocotitlán and Tlalmanalco.

and the official planning framework. Territorial organizations may have great influence on environmental regulations, urban development plans and programmes, zoning and local development plans. One of the first processes to develop was in Tlalmanalco, which is located under the Iztaccíhuatl volcano in the northern area of Sierra Nevada.⁽¹⁹⁾ The town has a rich cultural and architectonic heritage. The community's "water commissions" had managed their water since 1906 and the local *ejido*, or communal land, covers 12,000 hectares of land, a good part of which is forested. The community is well located to attract tourism; however, strong pressures for informal urban settlement endanger its future.

During 1996, women had been organizing ecological workshops with children, and the cultural commission of Tlalmanalco was actively seeking to rescue downtown historic sites. The integration of members from Universidad Autónoma Metropolitana (UAM) with the community brought together people with different backgrounds to address local social and ecological problems. A community self-diagnosis was undertaken, followed by purposeful planning outlining a future which promoted self-reliance and sustainable development.

Meanwhile, the local branch of the official party (PRI) was weakened and, in November 1996, an opposition party (PRD) won the municipal government elections in Tlalmanalco. Thereafter, a municipal-level participatory planning process was launched, promoted and supervised by both university members and community organizers. Early in 1997, the newly elected local government asked the UAM to carry out the 1997-2000 Municipal Development Plan (MDP). In each locality, the plan was discussed through participatory methods (mandated by the organic law of the state of Mexico, although rarely respected) and the promoters organized open fora to discuss different issues: water, forests, health, tourism, waste, culture and urban development.

Finally, the MDP developed by the people of Tlalmanalco was approved in April 1997. Some of its objectives included regaining a downtown area that had been lost to an irregular open market that was destroying the area; mounting a communal recycling enterprise; building a health centre focused on alternative medicine; rescuing 64 hectares of forest in El Faro, San Rafael for use as an environmental education area called Bosque Escuela ("forest school"); and stopping urban sprawl. Unfortunately, after the plan was approved, the municipal authorities were reluctant to implement it and not only failed to meet the commitments they had made but even secretly changed the document and produced a new version. However, many community members did not stop promoting their plan and began to implement it with local resources, also asking for state and federal support. As a result of the cohesive and proactive approach developed by civic actors, in June 1997 all the different groups that had participated in the Tlalmanalco plan founded a local civic organization as an umbrella group, the Consejo Social Iztaccíhuatl (CSI), that was interested in the conservation of the local cultural and natural heritage. Alongside this, the university participants established Project UAM Comunidad Sierra Nevada (PUCSN) in March 1997. This was an interdisciplinary project in applied research and social services, drawing on students and teachers from the three campuses. Its objective was to encourage research projects linked to planning and sustaining the area's abundant and vital natural resources that were under threat from the metropolitan area's growth. This relatively small-scale bridging organization has supported micro-regional social and economic development

19. The Iztaccíhuatl is a snowy mountain shaped like a young woman lying down, from her long haired head to her toes. The Aztec name for the volcano is "White Woman" and its ancient legend is a monumental Mexican "Romeo and Juliet". Iztaccíhuatl is a feminine volcano and Popocatepetl a male one. Popocatepetl was not allowed to marry Iztaccíhuatl and went to war to gain merit so he would be allowed her hand in marriage. Iztaccíhuatl thought he was dead and died herself of a broken heart, waiting for her loved one. When Popocatepetl finally came back and found his beloved bride-to-be dead, he stood permanently beside her with his head down until he was totally covered with snow, dying in turn. Both volcanoes are very important for Mexico's identity, as the mother and father region of Anáhuac, as Mexico was known before the Spanish invasion.

based on the sustainable use of natural resources and has been a greenhouse for local projects related to cultural, social, economic and ecological activities.

In January 1998, the Tlalmanalco downtown historic square was recovered for public use in the first and only action that the local authorities took that was in accord with the MDP. When the merchant squatters threatened to take over the area again, social mobilization was convoked and hundreds of inhabitants gathered in the square. During this cultural revival, between May and August 1998, many families that had guarded precious archaeological pieces for generations donated these so that they could be kept, classified and exhibited at a community museum, with support from the National History and Anthropology Institute. The Museo Comunitario Nonhualca was founded in August 1998 and the cultural house, Casa de Cultura Xochipilli, was remodelled. All this was promoted by the Consejo de Cultura through volunteer work, with no support from local authorities.

To accomplish one of the objectives of the MDP, the women's group in Tlalmanalco adopted the name Ixchel de los Volcanes, after San Miguel Teotongo's Ixchel health centre, and promoted the construction of an alternative health centre using homeopathy, massage and an indigenous sauna called *temazcal*. Starting in 1997, this centre was inaugurated in July 2001.

d. Regional encounters for sustainable development

The dynamism within Sierra Nevada is associated with a network of local groups, coordinated through regional meetings (*encuentros regionales para el desarrollo sustentable*) held in different towns in the Sierra Nevada area: in Tlalmanalco in 1997, Tepetlixpa in 1998, Ozumba in 1998, Amecameca in 1999 and Atlautla in 2001. Each meeting has been a step forward in the regionalization of the networking efforts. The *encuentros* allow the exchange of successful experiences in the micro-region and in neighbouring states as well as thematic meetings on issues such as health, agroecology, recycling, television, radio, community museums, eco-technologies, eco-tourism, environmental education and youth.

At the last *encuentro regional*, held in July 2001 at the Technical High School of Atlautla on the hills of the Popocatepetl elevation, the participants joined efforts to promote local organizing in each of the three micro-basins, in order to create micro-basin councils and participate in the urban development municipal planning process to be completed by November 2001 all across the state of Mexico. The innovative goal of this effort is to broaden the urban focus, with a deeper territorial approach that strongly emphasizes the environmental impacts of urbanization and takes into account the Popocatepetl's eruption risk factor.

e. Geographic literacy and the programme for the management of natural resources of the Sierra Nevada

Based on its years of interdisciplinary works in the area, the PUCSN proposed to build university-community collaboration in the volcano region in order to elaborate a development model to transform the unsustainable dynamics of urban expansion. Focusing on sustainable development as a goal, the Programme of Natural Resources Management was able to bring in other actors, complementing community-based organizations struggling from the bottom up. From a legal standpoint, the

programme is an agreement between UAM and federal and state ministries related to environment and social development. These are Semarnat Sedesol, the Mexican Fund for Nature Conservation (Fondo Mexicano para la Conservación de la Naturaleza) and the United Nations Development Programme.

This programme illustrates a transformational collaboration. It presents itself as an alternative to the larger economic and social trends that affect the region, its people and its natural resources. Its conveners present it through features related to the process (open, participatory, value-driven and vision-building) in a problem domain (geographical area of the Sierra Nevada) rather than through a bounded content and scope. Its overall objective is to transform social relations and practices in natural resource management.⁽²⁰⁾ Its general objective is to support local groups' initiatives in sustainable management and convert the micro-region into a green belt of sustainable development that will control unplanned urban sprawl and halt its destructive activities. As described in more detail below, the programme comprises:

- the technical and participatory assessment of resources;
- the production of municipal atlases of natural resources;
- the training of local groups – especially through interventions in high schools – in environmental monitoring; and
- the creation of a greenhouse of community-based model projects for natural resource management.

The basic facts about water, forest and soil management in any region are usually ignored by the formal stakeholders and by the community. Mexico is unusual in that it is a country that has tested a mixture of private individual and community-based property rights within a modern capitalist environment for over 70 years.⁽²¹⁾ But formal communal ownership achieved during the Mexican revolution does not mean real control over the resources managed in the name of the people. The majority of the stakeholders are too unaware of basic facts to be a real part of the decision-making process. This procedure also alienates women and children of *ejidatarios* and *comuneros* (it is mostly male adults who have rights to common lands). The *ejido* was an open institution in the early decades of the twentieth century that provided access to resources for the population to work with, but it came to be controlled by minority groups, the decisions being manipulated by a hermetic bureaucracy.

Conceived to provide the community with “geographic literacy”, the programme began with a diagnosis of the micro-region's natural resources undertaken by community members, schools, *ejidos* and communal organizations. With support from the university, community participants learned to diagnose the situation of water, forest and soil within their region. Using a geographical information system, they walked with maps, locating boundaries, forests, water sources, river pollution sources and volcanic hazards. These locations were geo-positioned and integrated into a regional geographical information system. The diagnosis was followed by a prospective planning exercise that enabled community-based groups to develop a strategy and action proposals.

f. Municipal natural resources atlases

The main objective of the atlases is to provide key sectors of the population with the necessary information to make them responsible for the

20. Raufflet, Emmanuel “Collaborations and collaborating in Tlalmanalco: one forest, five organizations and seven collaborations”, unpublished.

21. México has seen many mixtures of private individual and community-based property rights within a modern capitalist environment for more than 70 years. The Mexican mix includes corporate community-based land holdings (comprising 66.3 per cent of the production units and covering 59 per cent of the land area of Mexico); private individual holdings (comprising 30.8 per cent of the production units and covering 40.9 per cent of the land area); and mixed systems (comprising 2.9 per cent of the production units and covering 0.1 per cent of the land area) (National Census, 1990). See Alcorn, Janis and Victor Toledo (2000), “Resilient resource management in México's forest ecosystems” in Berkes, Fikret and Carl Folke (2000), *Linking Social and Ecological Systems*, Cambridge University Press, Cambridge.

management of their resources. The first atlas was developed from the municipal environmental diagnosis and contains:

- maps and texts based on the analysis of municipal natural resources;
- indicators of sustainability for the local monitoring of natural resources; and
- the identification of options for the funding of micro-productive projects to improve the management of the resources.

The municipal atlases for Tlalmanalco, Ecatingo and Amecameca were released in December 2000. The three next atlases, for Ozumba, Atlautla and Tepetlixpa, were presented in July 2001.

g. “Guardianes de los Volcanes”: participatory monitoring

Community-training in environmental monitoring is another important task. Once a vision for the region’s future is developed, key members of the communities across the region have to be able to monitor the impact and report regularly on the state of the region. In doing so, the PUCSN not only hopes to measure the efficacy of its interventions but also to supply communities with scientific tools to allow a more conscious and effective management of its natural resources.

During 2001, under the name “Guardianes de los Volcanes”, 140 teachers were taught to promote participatory planning through training sessions conducted in 33 high schools. It is a type of public participation in which young people in the micro-region who belong to diverse stakeholder families are included in the monitoring process; they choose the issue and collect and analyze data. This research links experts and non-experts, namely schoolchildren and young people, teachers, researchers and authorities. These groups are developing a partnership for effective and socially inclusive monitoring, contributing to a change in cultural habits and promoting connections to the policy-making process.

h. Greenhouse for community-based productive projects

The PUCSN also identifies natural resource management problems as an economic issue. The current crisis in the region arises in part from a poor organization of its natural and human resources. The programme aims to foster the local economy and re-orient the currently inadequate management through encouraging productive projects of sustainable management, highly visible and easily replicable, so as to create the basis for a model for sustainable development. The programme is creating a “greenhouse” of micro-productive projects in partnership with the regional community-based movement. It includes training and encourages cooperation between local micro-projects, emphasizing three aspects:

- community-based natural resource management and regional sustainable development;
- training in capital management for productive projects; and
- training in administrative and strategic planning techniques for community-based enterprises.

This is achieved with the help of researchers and students from UAM and is coordinated by the PUCSN. Based on the diagnoses and the atlases, the UAM has identified favourable conditions for sustainable management projects related to water, soils and forests (see Box 3).

Box 3: Opportunities for the sustainable management of natural resources identified by the UAM Comunidad Sierra Nevada (PUCSN) project

Forests: Association for eco-tourism services, including houses with accommodation, restaurants, cabins, camping, guides for various tours to the Iztacchuatl (with or without vehicles), bilingual guides, bike tours, mountain bike and horse rental, cultural tours, bird-watching, high mountain archaeology, greenhouses for endemic species, timber plantations in deforested areas, raising areas for forest fauna, and crafts.

Soils: Recycling of plastic, glass, metals, organic waste and other materials; organic agriculture; flower-growing; medicinal herb-growing; mushrooms; lombriculture; fruit gardens; organic agro-industry (marmalades, honey-based products, *amaranto*-based products); promotion of low impact ecological housing.

Water: Projects that include water treatment and recycling with fish cultivation and irrigated agriculture; promotion of ecological bathrooms and SUTRANE systems; areas of oxidation; trout farming; eco-tourism projects such as thermal baths, fishing and visiting show case projects for water management.

SOURCE: Raufflet E and Casa UAM (1998), "Diagnostico regional del agua, de los bosques y de los suelos de la region", Casa UAM-Comunidad, Tlalmanalco.

Up to 1970, much of Mexico's agriculture was self-sufficient and community-owned lands were the centre of the government's agrarian policies. Almost all the families were represented in the *ejido* assemblies, and the *ejidal* authorities built schools, water systems, chapels and sport areas. Today, people belonging to the *ejido* form a minority. Government policies have sought to dismantle the *ejido* in order to privatize it. Chaotic urbanization on *ejido* lands displaces agricultural uses. Elaborating medium- and long-term plans based on the rational use of land and water, which include diversification, forestry and eco-tourism and which accept the participation of the community's women and young people, is key for the reorganization of the *ejido*.

One important goal is to further develop organic agriculture, along with a trade network for natural products which include marmalades, honey and herbs. This is supported by advice from the Technical Agroschool "Emiliano Zapata" in Tepetlixpa and PUCSN. A greenhouse for productive communal enterprises is promoted, in order to link and support strategic projects and build networks that are more competitive.

Eco-tourism helps local communities and visitors to be aware of and take care of the cultural and natural heritage, and does not require large investments in hotels and restaurants. All that is needed is training and organization to help the local population form their own enterprises as guides who are in contact with their history and the ecosystem, and the promotion of outdoor activities such as horse-riding, bicycling and camping. During 2000, five community groups took part in a training process to set up their enterprises. Atlautla, Tecomaxusco and Ecatzingo are the outstanding projects and are promoting regional tasks such as promotion, training in administration and security, the standardization of signs, uniforms and rules, flora and fauna inventories, and route design. Other projects, such as the Bosque Escuela Ecological Park, TV3 Tezcaltepetl community television, Tlachaloni communal eco-tourism enterprise and the women's community-based organic marmalades enterprise Madre Tierra all represent concrete achievements in this process. Each project also has a strong emphasis on process issues: they have to be community-based and participatory. Another issue is volcanic risk. Ten

out of 11 municipalities in Sierra Nevada are in the volcanic hazard area and the eleventh is the escape route in case of evacuation. PUCSN proposes a community information system and the promotion of rail transportation.

The 1996-2001 period corresponds to an era of intense institutional and political changes. At the national level, the triumph of President Vicente Fox displaced the PRI dominance but not the commitment to the neo-liberal economic policies followed by the previous three presidential administrations. At the micro-regional level, the work in Sierra Nevada undertaken by a wide range of organizations working through networks seeks to address some of the most important issues with a collaborative and proactive approach, seeking alternative ways of building well-being in local communities in harmony with nature.