



RURAL  
DEVELOPMENT  
INSTITUTE

QUALITY OF LIFE  
IN THE PUERTO VALLARTA REGION  
OF JALISCO STATE, MEXICO

August 25th 2003

Working Paper # 2003-01



**BRANDON**  
**UNIVERSITY**

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## **Abstract**

This collaborative project on quality of life (QOL) focuses on the collection and analysis of data from a sample of individuals from Puerto Vallarta as well as from four towns close to Puerto Vallarta, in Jalisco state, Mexico. The four towns are El Tuito, Ixtapa, Las Palmas, and Tomatlán. The study is part of a long-term enterprise that seeks to examine the effects of tourism on the QOL of places and people in Jalisco as tourism increases in the coming years. A questionnaire was used to collect data on the importance and achievement levels for a set of 15 factors relating to QOL. Each individual interviewed was asked to score importance and achievement levels. The data were used to provide an overall QOL score for each town as well as for Puerto Vallarta. Also a multi-criteria technique was used to derive a ranking of individuals in each town in terms of their QOL. Comments on relevant QOL literature are included and the results are discussed. Some of the implications of our work for planning and for rural development are discussed. Directions for future research in this area are included.

## Preface

In 2000 a co-operative teaching and research venture was initiated by the Rural Development Institute at Brandon University, Canada and the Universidad de Guadalajara, Centro Universitario de la Costa, campus Puerto Vallarta, Mexico to explore selected topics concerning tourism and quality of life (QOL), especially as they relate to rural development and sustainable change in small rural communities near to Puerto Vallarta in the state of Jalisco, Mexico.

Members of the team include Dr. John Everitt (Brandon University, Canada) and Dr. Bryan H. Massam (York University, Canada) and the following professors from the Universidad de Guadalajara, Centro Universitario de la Costa.

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In February 2003 Laura Gabriela Hernandez Cachou (Coordinadora de Eventos del Salon de Cabildo, City Hall, Puerto Vallarta) joined the team and was responsible for collecting data on the quality of life in Puerto Vallarta.

This report offers a summary of the work completed over the period 2000-2003. Section 1.0 provides some Background to the study area. In section 2.0 (Introduction) we provide comments on rural development, tourism and quality of life. This section will also include a brief discussion of a programme developed by the European Union that focuses on the identification of depressed rural areas in Europe and the search for initiatives to improve the QOL in such places. The programme is the LEADER project, and the promotion of tourism is seen as an important initiative toward sustainable rural development in selected depressed rural areas of Europe. Section 3.0 will offer overview remarks on QOL studies, and in section 4.0 we will provide a review of empirical studies we completed in three towns in 2000 in Jalisco state - Las Palmas, El Tuito and Ixtapa. In February 2003 further data on El Tuito were collected and analysed as well as data for Tomatalán and Puerto Vallarta. Comments on the results of the analysis of these data will be given in this section. In section 5.0 we provide comments on planning initiatives concerning tourism and rural change that relate to QOL and sustainable development, and in section 6.0 we identify research topics and projects that are worthy of future study as this co-operative venture continues.

The three field visits to Puerto Vallarta and the Universidad de Guadalajara, Centro

Universitario de la Costa by Drs. Everitt and Massam during the period 2000-2003 have provided opportunities for them to present lectures and seminars on the following topics.

- Contemporary research on the geography of tourism.
- The place of tourism and recreation in the applied geography tradition.
- Research methods, data collection and analysis in the social sciences.
- Multi-criteria decision making techniques and the analysis of QOL data using computer-based decision support systems.

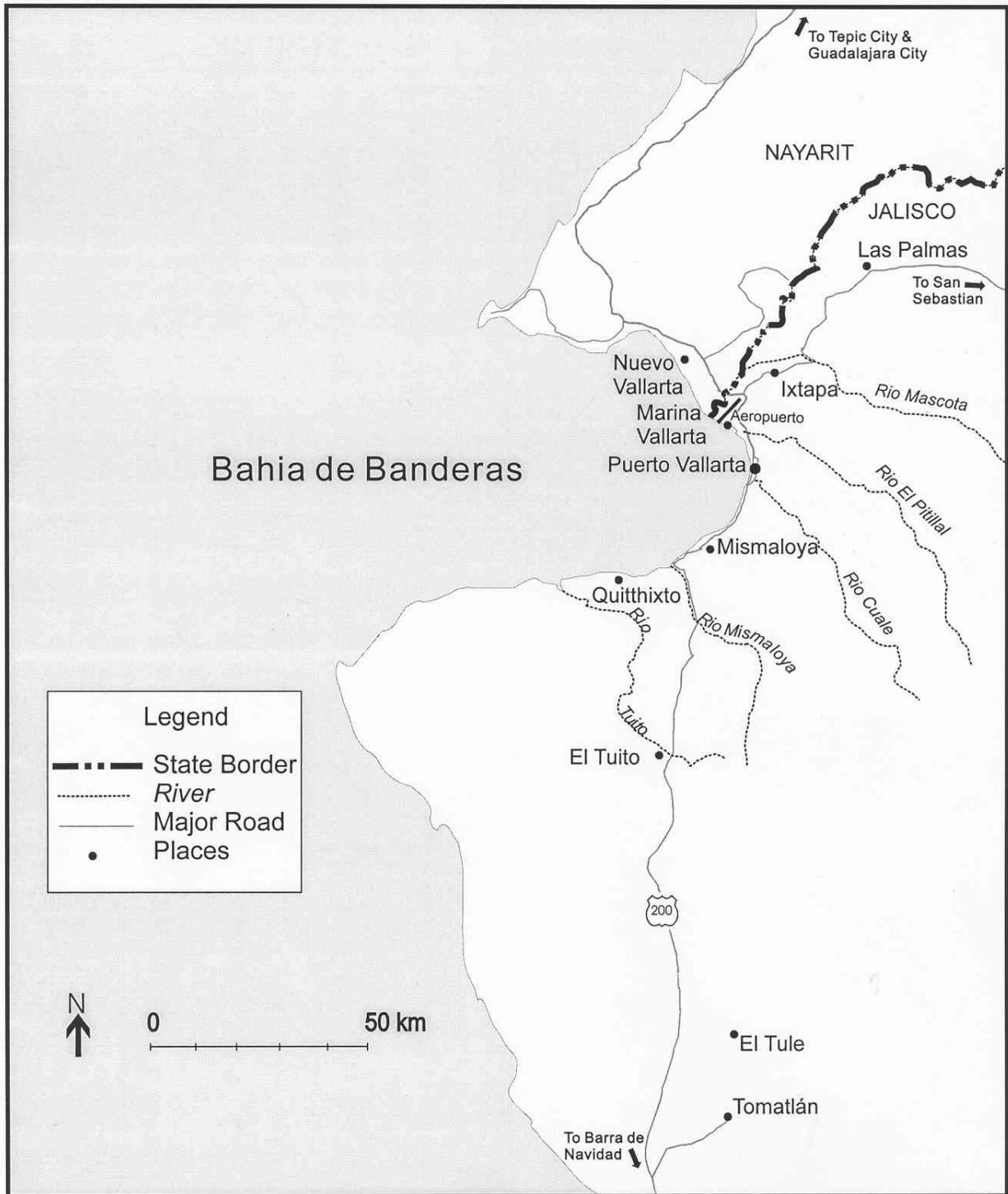
## **1.0 Background to the Study Area**

Founded in 1851, Puerto Vallarta (PV) officially became a city in 1918, and although it was associated with sport fishing at an early date, its first important connection with tourism is often dated to the opening of its earliest true hotel, the 'Hotel Rosita' in 1948 (Everitt et al., 2001). In 1954 the beginning of air transportation made the city more accessible to the rest of the world, but the next major event that brought Vallarta to the attention of the rest of the world came a decade later. To quote a Vallarta web site: "In 1963, with the filming of *The Night of the Iguana* in nearby Mismaloya (south of town), Puerto Vallarta was mentioned on the world news and quickly became one of the most popular destinations in the Mexican Riviera." In the 1970s, government policies to increase population in this Jalisco coast area coincided with a rapid increase in free time and disposable income for Anglo Americans, and Puerto Vallarta began to grow as a resort.

Tourism has been critical to the overall growth of the Vallarta region. The local physical geography has been a major factor in shaping this growth. Puerto Vallarta is located at the head (east end) of Banderas Bay - the "Bay of Flags" (Figure 1).<sup>1</sup> It is located in the northwest corner of the State of Jalisco, but is adjacent to the border of the State of Nayarit, the boundary of which runs along the valley of the Rio Ameca. However, this "natural boundary", like so many of its kind, has recently proved to be a source of political and social challenges -- particularly associated with the tourist industry.

The PV town site is backed by a series of highlands (up to 2000 metres in height) that give considerable scenic value to Vallarta, as well as affecting the local weather and climate. However, these mountainous areas also complicate the process of urban growth by restricting the amount of easily serviceable land that can be used for building construction, as well as for transportation. These site characteristics are particularly important to the understanding of recent growth patterns in the Vallarta region. At one time poorer housing was concentrated in these hills, but recently expensive tourist villas have been taking over this scenic landscape, and the indigenous - or at least local - population has been impelled to move elsewhere, along with newer in-migrants. As might be expected, an understanding of the changing tourist elements is also critical to an understanding of the development of tourism in the Banderas Bay region.

**Figure One: Bahía de Banderas**



Originally Vallarta was an agricultural centre and a fishing village, and even after its incorporation as a town it retained these functions, with tourist activities being grafted onto the original settlement. Despite the influence of air travel, Hollywood, and tourism, growth has been (until recently) quite slow. From only 12,500 in 1964, by 1970 the population of the incorporated settlement had risen to only 24,115. However by 1990 the population of Puerto Vallarta had grown to 111,457 and the Jalisco coast, which can be viewed as "greater Vallarta", now has an estimated population of over 350,000 (Jiménez Martínez, 1998; <http://www.pvconnect.com/map.html>), has at least 15,000 hotel rooms (<http://www.puerto-vallarta.com>), and receives two million visitors annually. Puerto Vallarta now receives about 30% of the total tourism of Jalisco State. Between 1970 and 1990 the tertiary sector of the economy (principally a tourist-oriented sector) increased in value from 59% to 82%, with the primary sector dropping from 10 to 2%, and the secondary sector from 24 to 16% (Jiménez Martínez, 1998).

The relatively slow and recent growth, has meant that the retention of "character" has been part of the charm of the settlement, and contrasts with manufactured resorts such as Cancun — and as we shall see, the "opportunistic resort" that is being built at Nuevo Vallarta. One result is that the core/downtown of the city (Viejo Vallarta), built in the style of traditional Mexican towns (Arreola and Curtis, 1993; Arreola, 2002), still retains its typically-Mexican urban plan, as well as numerous older buildings of traditional architectural style, although many of these have been recently converted from (e.g.) upper status housing to (e.g.) restaurants, art galleries, and cyber cafés. Despite these recent changes, which include the "popularisation" of the town with the standard fast food chains and clubs (McDonald's, Hooters etc.) of Anglo America, Puerto Vallarta is considered by many to be the "most Mexican" of all the beach destinations in Mexico. Its home state of Jalisco is known as "the most Mexican" of all the states, due to its rich traditions and folklore.<sup>2</sup>

Although there are strong cultural forces behind the maintenance of the urban landscape (Arreola and Curtis, 1993), in part the retention of this character may also reflect the position of Vallarta within the Mexican urban system. For the Vallartan urban area is clearly dominated by the primate city of Guadalajara as this latter centre is itself dominated by Mexico City. Several million people live in and around Guadalajara, and many Puerto Vallartans access this urban area on a fairly regular basis for many traditional urban functions (such as shopping and entertainment, and even now higher education). As a consequence the Jalisco coast area has not taken on some of the urban functions that might otherwise be associated with a centre place for 350,000 people, and the CBD is still noticeably low-rise and non-metropolitan in form, and has become in essence an RBD (Recreational Business District) with true CBD functions being few and far between.

Today the greater Puerto Vallarta region can be seen as a series of zones. Traditionally three have been recognised within the city, although nowadays some others can be identified within the larger region. First there is the southern hotel zone, which lies south of the Cuale River. Second there is the central town or Viejo Vallarta (Old Vallarta), which lies north of the Cuale River, and third there is the northern hotel zone that has seen the greatest recent growth. Arguably it begins at the site of the still extant Hotel Rosita, and extends northwards as far as the Marina, which itself exemplifies recent developments in maritime tourism.

The Marina, constructed in stages since the mid 1980s, consists of a variety of hotels, mini-resorts, condominiums and restaurants along with a golf course and extensive area for pleasure boat docking. For better or worse, it appears to be reminiscent of, if not modeled upon, the Marina del Rey area of Los Angeles. Marina Vallarta represents the development of a natural/physical area (a river estuary), and as such illustrates a dramatic transformation of the local environment. The Marina is a recent growth pole, and constitutes, in essence, a separate (fourth) sector of the city at the northern end of this hotel zone. At its eastern end is the cruise ship dock that has welcomed an average of nearly 200,000 passengers a year over the past decade. To the north of the Marina, the International Airport and a naval base fill most of the territory north to the state boundary, which has traditionally represented the northern boundary of the urbanised area.

Nayarit, the adjacent state to the north, recently used a massive influx of Federal funds to develop Nuevo Vallarta (which makes up a fifth regional tourist sector), a marina and resort area that extends some ten kilometres north of the political boundary with Jalisco. This resort area is one of the foci of this paper. South of the southern hotel zone (and constituting a sixth sector) of Vallarta extends a belt of new construction (South Vallarta), consisting largely of expensive villas and condominiums - many of which are rented/owned by Anglo American expats or snowbirds. This zone terminates at Mismaloya - the site of the old movie set that is now a tourist destination.

Outside of this immediate coastal zone is a large area that has traditionally been agricultural which is home to many settlements that are being impacted by tourism from Puerto Vallarta in slightly different ways. There are, for instance, a number of “fringe” settlements, usually based upon pre-existing villages, which have also grown considerably in recent years. Most commonly these settlements such as El Pitillal and Ixtapa provide housing opportunities for people who cannot afford, or do not wish to, live in tourist-oriented Vallarta. Many of those in, for instance Ixtapa (one focus of our research), are recent in-migrants to the Jalisco coast, and have been attracted by opportunities in the tourist industry. There are also settlements in the “shadow” of Vallarta that are being affected by the provision of ‘less urban’ forms of tourism experience – an influence that is only likely to increase in the foreseeable future. Our study looks at two of these, El Tuito and Las Palmas that are more-or-less equidistant from PV to the southwest and northeast. Because of better communications El Tuito is currently more integrated into the Vallarta regional tourist economy than is Las Palmas. Further out there are other settlements such as Tomatlán (another study site) that are hoping to benefit from tourism. Although the clientele for these centres may have been attracted initially by the larger settlements such as Mazatlán, Puerto Vallarta, and Barra de Navidad, they often want a different, or at least additional (for instance) eco-touristic experience that can best be catered for within the surrounding region.

Our research will report on work conducted in a selection of these different centres (see section 4.4).

## **2.0 Introduction: Rural Development, Tourism and Quality of Life**

As the 21<sup>st</sup> century begins we are reminded by Jordan and Sullivan (2003) that Mexico faces

very serious problems of poverty in spite of the signing of NAFTA and the promotion of improved quality of life that the supporters of the trade agreement argued would follow. While the percentage of poor Mexicans is about the same as in the 1980's - that is approximately 50 per cent - the population has grown from 70 million to just over 100 million: "This means that about 19 million more are living in poverty than 20 years ago ...about 24 million are classified as extremely poor and unable to afford adequate food." As the population of the country is projected to increase to 153 million by 2050 (Population Reference Bureau [PRB], 2003) this situation is only likely to be exacerbated. However, although Mexico's population growth rate is faster than the world average, its increase in Per Capita Gross National Product (PCGNP) is also much greater, the country's proportion in younger age cohorts is dropping, and generally the population structure appears to be stabilizing.<sup>3</sup>

Despite these encouraging averages, however, Jordan and Sullivan (2003) go on to note that: "Most of those who are extremely poor live in rural areas. Government figures show that more than 40 per cent of Mexicans in rural areas earn less than US \$1.40 a day, unable to feed themselves decently." Thus although the country has grown richer in general, poverty has increased at the same time – and particularly rural poverty. It has an economy of US \$600 billion, making it the ninth largest in the world, and the volume of trade has increased three-fold since 1994 and the signing of NAFTA. Mexico is home to one of the world's largest oil companies, the nationally owned Pemex (Petróleos Mexicanos), and the tourist sector draws 20 million to the beaches and other attractions each year making Mexico a member of the list of ten world's most popular tourist destinations. The contrasts of wealth and poverty are stark reminders of the challenges facing the government, civil society and citizens, and the private sector in Mexico.

It is within this broad context of the contemporary scene in Mexico that this collaborative project is situated. The focus of this project on quality of life, rural changes and tourism as well as sustainability are all topics that are relevant to the situation in Mexico, and we hope that this work will contribute to the ongoing debate to improve the human condition in this country.

## **2.1 Rural Development and Tourism**

A number of conflicting forces can be identified in the contemporary world that have had an important effect upon much of rural Mexico. One is the trend towards *globalisation*. A second trend is *neolocalism* that is "the desire evident in many local communities to re-embrace the uniqueness and authenticity of *place*" (Jordan-Bychkov and Domosh, 2003: 432). In the Puerto Vallarta region, although rural tourism and recreation are tied to some extent to both of these wider trends, it can be argued that it is *neolocalism* that has been of greater significance in recent years, as residents and government officials attempt to draw attention toward their local resources, and away from those elsewhere in Mexico, and indeed the rest of the world.

Tourism is seen by many of its proponents as a "smokeless industry" that can be a sustainable economic salvation for their settlements. It is usually seen as a form of economic activity that can be integrated into many other sectors of the economy. It is this varied potential of recreation and tourism as a resource, that appeals to both urban and rural planners, as it means that there is on the one hand a number of choices open to any particular location, and on the other hand the

opportunity to create different kinds of *places* in relatively similar physical and cultural environments.

However, the diversity inherent within recreation and tourism has meant that it has been difficult for planners and policy makers to define and conceptualise the industry. This has proved to be challenging for higher levels of government and meant that tourist *promotion* has relied upon regional and community structures. The shortage of the former, and the tensions and conflict situations that have sometimes characterised the latter, have further complicated the process. However, it is being more widely recognised that it is difficult for communities with limited numbers and resources to embark on tourism development alone.

At the same time it must be remembered that tourism isn't a "smokeless industry". There are problems associated with tourist development. Tourism offers both opportunities and threats. It can lead to over dependence upon a new product, have negative social impacts, and be destructive to the environment. However, if a successful management strategy tied to *place marketing* is done carefully, if *diversity* is emphasised but *uniqueness* and the *dynamics* of individual places are also stressed then the marketing and co modification of regions such as that around Puerto Vallarta could prove to be a significant spatial development strategy for many of the area's inhabitants.

It thus follows that tourism can and sometimes does provide opportunities for rural places to take advantage of the inflow of funds to promote improvements to QOL. However, it is all too easy simply to say that tourism is a 'good thing' for all rural places without detailed consideration of the actual costs and benefits, and the complex nature of impacts on the existing local communities. The empirical data collected on QOL in the selected rural communities in Jalisco in this project reflect local views of conditions as perceived by local residents. The move toward (for instance) eco-tourism attempts to take into account local patterns of living while encouraging tourists to come to hitherto unknown places.

Mexico is still predominantly (75% of its population) a rural society, and 20% of the labour force is engaged in agriculture. As in many other countries rural to urban migration has been identified as a major challenge for all levels of government, and rural development strategies have been proposed to help keep people in rural areas as well as provide employment opportunities in 'the rural' or in cities if they do choose to move to urban centres. Tourism in general can alleviate some of the development issues in a region. Rural tourism is one important variety within the tourism package that has become increasingly valued as a focus tourism development, with ecotourism being particularly popular within this larger grouping.

A problem not limited to the issues of tourism nor to the research discussed in this paper is the question of what is 'rural'? In this project we will not be vitally concerned with this question, as we will be reporting upon a data collection process that took place within the major centre of Puerto Vallarta (PV) as well as a number of towns in the hinterland of PV. The people involved in the research had, however, in many cases moved from distinctly rural environments into urban contexts in recent years. As such we were looking not at simply "urban responses" or "rural data" but to information that concerned the region as a whole, both urban and rural. Thus to differentiate between these two contexts would have created a false dichotomy. We will come back to this point when we discuss the study area.

## 2.2 The Leader Programme

This section provides a commentary on one of the specific programmes developed by the European Commission that has as its basic focus the improvement of the quality of life for individuals and communities in the depressed regions of Europe. This is one of several programmes designed by the European Union to aid peripheral (lagging) rural regions in response to the globalisation of the economy that has threatened many traditional ways of life (Ilbery et al., 2003). The specific programme of interest here is the *Liaisons entre actions de développement de l'économie rurale* (L.E.A.D.E.R.) programme, which was initiated in 1991. A discussion of this programme is provided by Massam and Perez (1998) and they argue that for much of human history the quality of life for individuals has depended on their connections to a group for sustenance and support, and typically the group comprised the family, clan, tribe or larger collection of linked individuals with a shared identity (Anderson, 1983). This grouping of individuals within *de facto* territories gave rise to communities and larger agglomerations of rural and urban settlements often within *de jure* pieces of space. Perhaps the most fundamental and important group from whom support was available was the family, and it is clear from the survey data presented later in this report for the selected rural places in Jalisco that the family is a key element in securing a good quality of life. Further the support of friends and neighbours is also critically important. The state and higher levels of social organization are less important it seems. With the rise of the welfare state in the post-war period in Europe, and the growing importance of citizenship as a category for social policy-making there has been a marked shift toward agencies of the sovereign state as the providers of services to maintain and encourage a decent standard of living, and the preparation of individuals via acculturation to become productive members of society. The concept of citizenship as a critical element of the civic state with its functions to give meaning and purpose via a range of policies has been brilliantly summarized in a paper by O'Neill (1997).

In recent years Khakee et al. (1995), among others, have noted that the welfare state has become a fragile entity; this is especially true as expectations have continued to rise beyond the means of governments to provide the full range of goods and services to protect all citizens from the vagaries of life on the journey from the cradle to the grave. New forms of post-welfare states are emerging: for example the state-nation, phantom state, the shadow state and the regulatory state are categories that capture volunteerism, globalization and matters of local identity. A description of these is provided in Massam (2000). Unlike the depressed rural areas in Europe that are contained within states that are generally economically quite prosperous and with well-developed welfare systems we note that the situation in Mexico is substantively different. The rural poor are in a country that abuts the richest state in the world - the US -and the flow of jobs and economic opportunities from north to south is very limited. NAFTA has done little to improve the quality of life for the rural communities in Mexico and the emerging welfare system does not yet provide a full comprehensive set of services to all citizens of the country. There is considerable reliance on civil society, friends and family as well as informal contacts to provide many services that directly impinge on quality of life. Self-reliance is high and the informal network of connections is vital for survival.

L.E.A.D.E.R. is one of fourteen Community Initiatives adopted by the European Commission following the reform of its Structural Funds programme to improve the quality of life in rural areas and reduce long-standing regional disparities (Moseley, 1996). The Structural Funds

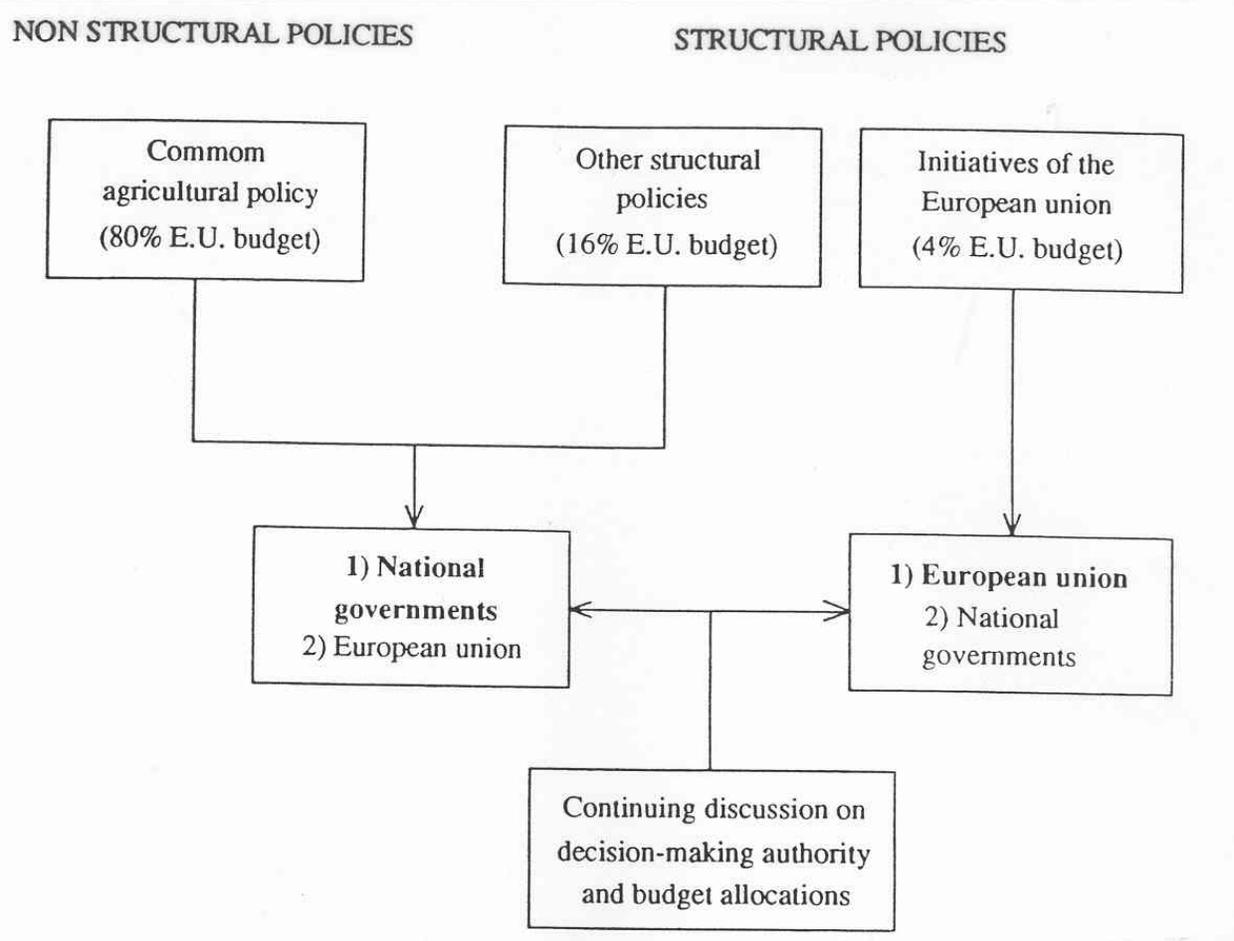
programmes were established some years before L.E.A.D.E.R. with a similar mandate in regard to these rural problems, but its Social Policy, Regional Policy and Socio-Structural Policy had achieved only limited success up to the 1980s. While the European Social Fund was successful in promoting better qualified workers and assisted the occupational integration of young people, its major benefits and positive impacts did not extend to the populations in the most disadvantaged rural areas. During the 1980s, the European Regional Fund also did much to improve the infrastructure of lagging regions, but did not always reach the rural areas most in need or was unrelated to their specific and local needs. The European Agricultural Guidance and Guarantee Fund was a final initiative following the 268/75 European Act, providing increased intervention in depressed and lagging rural areas. Once again, its impact on the quality of life of local populations was limited.

The Reform of Structural Funds tried to improve the efficiency and effectiveness of these instruments through better coordination among them, greater flexibility in their actions, simplification of the bureaucratic process, and improved selectivity of intervention and matching of priority objectives. Two other elements were very important in this respect: the changing emphasis from individual and isolated projects to global programmes which allowed for greater coordination; and an increase in funding by 100 per cent for the entire Structural Funds programme between 1987 and 1993.

However, Community Initiatives, including L.E.A.D.E.R., were not designed to address just the chronic regional and/or social problems across the European Union. Following the Single European Act, they were, first, instrumental in compensating for the negative regional impacts of European integration and creation of a single European market in 1993, and later, the Economic and Monetary Union. A second general objective related to social and economic cohesion approved by the Single European Act, and this contributed to the Reform of Structural Funds as well as the adoption of Community Initiatives. The European Commission adopted a first round of Community Initiatives during the period 1991-1995. The combined budget was about 4 per cent of that for the entire European Union. One innovation of the Community Initiatives was that the European Commission would have greater authority and independence in deciding on specific Initiatives, in the use of funds, in the management of the Initiatives, and in the monitoring and control of their implementation. It was accepted that agreements entered into with national governments would have been preferable but, unlike non-structural policies and some other types of structural interventions, the European Commission was able to have much more control of the Initiatives (Figure 2). The main objective of promoting this central role of the Commission was to ensure that the different programmes were more coherent in their conception and implementation to avoid known problems in the management of Structural Fund.

When the European Commission adopted L.E.A.D.E.R. as one of the Community Initiatives in 1991, it was under the general approach of local and integrated rural development. This approach was also found in earlier key documents of the European Commission, such as the Green Book on Community Initiatives (1993), or *The Future of Rural Society* (1988). Moreover, the Reform of the Structural Funds also found this approach to be appropriate for the global development of lagging and deprived rural areas within the European Union. The locations of LEADER projects in Europe are shown on Figure 3.

**Figure Two: Allocation of E.U. initiatives and structural policies after the reform (1988)**

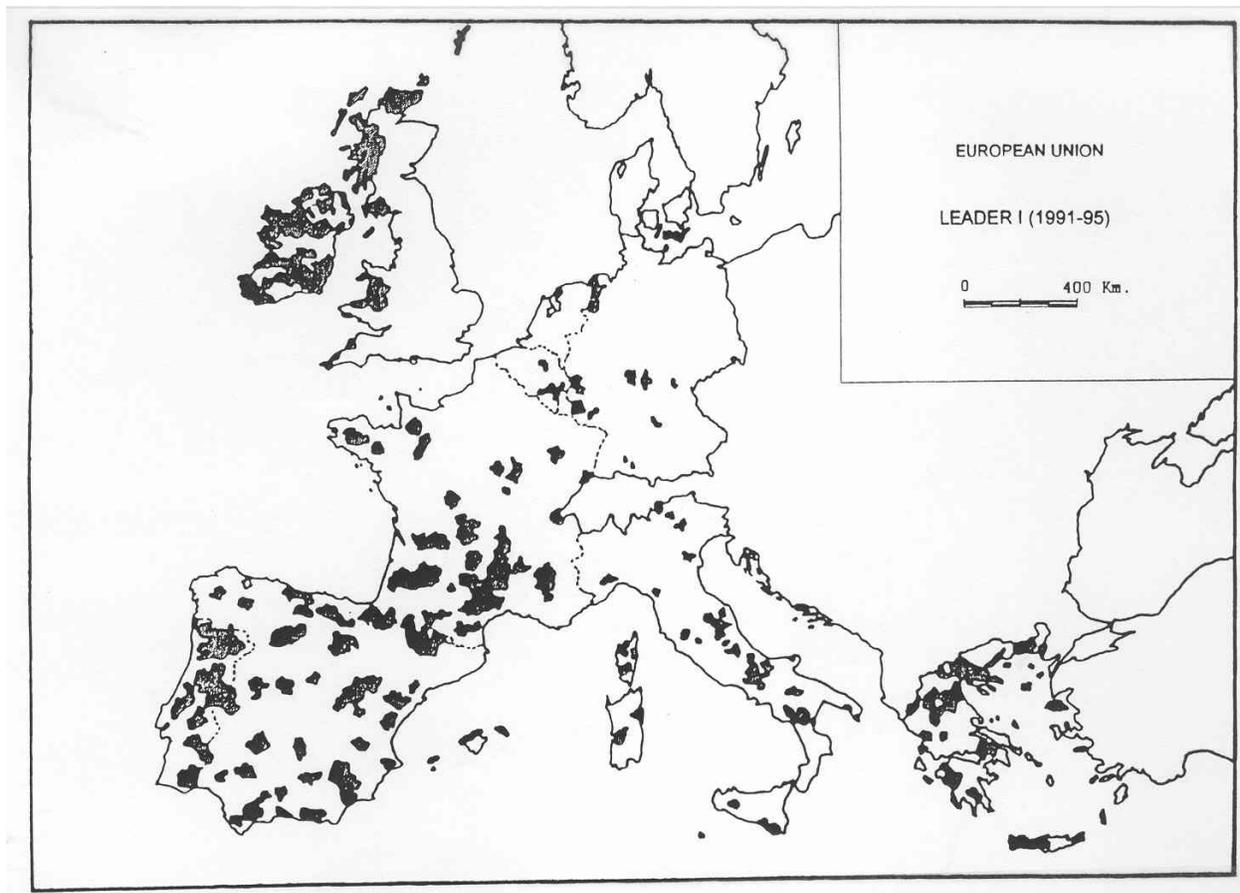


L.E.A.D.E.R. does not itself contain all the elements of integrated and inter-regional rural development policy. Its general objective is the improvement of the quality of life through intervention in economic activities rather than through such aspects as infrastructure or public facilities. The acronym, when spelled out, makes this clear: *Liaisons entre actions de développement de l'économie rurale* (Links between Actions for the Development of the Rural Economy). In this sense, in order to diversify the rural economy and maintain a suitable socio-economic structure, L.E.A.D.E.R. provides assistance for activity in rural areas, which promotes the development of local initiatives.

Since L.E.A.D.E.R. is not a self-contained rural development policy, it must be used in combination with other European structural instruments. When combined, they allow national, regional and local authorities to promote integrated rural development policies. Nevertheless, L.E.A.D.E.R. possesses many key elements of a bottom-up approach, which is itself innovative. The first is related to the promotion of **links between local activities**. Integrated development includes the stimulation of these links between local economic activities to produce multiplier effects. It also means the participation of all economic and social agents in the process of development in order to reinforce these links and any positive effects among the different local

activities. The second important element is related to **local management**. Local actors - the population itself - must make the decisions concerning their future.

**Figure Three: Location of LEADER 1 projects**



In this way L.E.A.D.E.R. allows local managers wide latitude in choosing development alternatives, the design of their own strategies, making their own decisions, and managing the process of development for themselves. L.E.A.D.E.R. uses this approach along with Local Development Groups (L.D.G.) to promote local involvement and wide participation of the local population in the process, since the discussion of alternatives include the design of strategies, implementation of actions, and monitoring and evaluation of the action. Throughout this process, economic and social agents within the population play a key role since they traditionally act in the important capacity of mobilizing the rest of the population. Economic agents are those who make the decisions to invest their savings toward the creation of new activities, and are crucial in ensuring the success of the process.

L.E.A.D.E.R. represents the first time the theoretical concept of integrated rural development has been put into practice in the southern periphery of Europe. We wonder if Mexico could adopt a

programme like L.E.A.D.E.R. to assist in rural development and we suggest that this be explored in future collaborative research. Perhaps the bottom-up approach of L.E.A.D.E.R. represents a major departure from the traditional top-down strategies. Unfortunately, many people involved in rural development, even some L.E.A.D.E.R. managers, believe in top-down approaches that assign an important tutelage and/or decision-making role to public regional or national institutions. Community leaders must bear in mind that this mentality is extant within local populations, and among agents and managers, as well as regional and national authorities. The exercise of locally based democratic participation is an excellent instrument to avoid top-down practices in these rural development policies. This element of decision making and planning for rural areas in Mexico is worthy of exploration.

Other innovations in L.E.A.D.E.R. contribute indirectly to the bottom-up approach. In order to ensure that managers and Local Development Groups have access to wider experience, and to break the usual isolation within which they work, L.E.A.D.E.R. promoted the **European Rural Development Network** (ERDN). This instrument facilitates the exchange of information and experience across the European Union, allowing local communities to learn from the most innovative programmes and contribute their own experiences to other communities or L.E.A.D.E.R. areas. It would be useful for planners in Mexico who deal with rural issues had connections to the ERDN.

L.E.A.D.E.R. (I) also tried to promote the most **innovative projects**, especially those related to agricultural activities and project implementation. The fact of their eligibility, according to the terms specified by the Commission, indicates greater innovation as compared to previous activities in many of these rural areas. In this regard, L.E.A.D.E.R. promotes rural tourism projects, small and medium enterprises, training, and commercialisation of local products; activities beyond traditional livestock farming and agriculture, although many of these ‘new’ activities have connections with or are complementary to them. As a result, the level of true innovation in individual projects is not as high as the figures show. One aim of L.E.A.D.E.R. (II) is to develop more diverse and truly innovative projects in and of themselves, not simply innovative management techniques. Examples of specific projects that have been supported by L.E.A.D.E.R. include:

1. Construction of hotels & restaurants
2. Construction of hiking trails & horse trails
3. Promotion of traditional arts & crafts enterprises
4. Restoration of historical sites & museums
5. Promotion of food production e.g. rabbits, pheasants, honey

It is clear from the survey work undertaken in the selected rural communities in Jalisco that the promotion of tourism with hotels etc and the projects listed in the top 4 items above are already part of the set of initiatives currently being developed in some rural places in Mexico. The aim is to diversify the local economies and to encourage investments in tourism and related activities to encourage the flow of visitors to rural places and thus to create wealth and improvements to the quality of life of people and rural places.

### 3.0 Quality of Life Studies

Much has been written about the term *quality of life* (QOL) and academics from a number of disciplines as well as planners have offered detailed discussions about different conceptual frameworks for defining, describing and explaining QOL as this varies among individuals and places over time. A review of this literature is provided in Massam (2002). A detailed elaboration of the literature will not be included in this report. However, in the next section we will elaborate on a specific approach to the study of QOL that allows individuals and places to be classified in terms of their QOL using subjective data derived from questionnaire surveys.

To quote the introduction to this monograph Massam (2002: 142) asserts that:” Life is lived privately, publicly and secretly. The lives we lead reflect the choices we make within the bounds of constraints and information. Our genes and income contribute to the opportunities we have. Our families, community and place of birth all influence our views about what is important in defining a quality life. Our individual and collective memories and histories play major roles in determining our opinions as to the quality of our lives. We should be wary of reification of the concept of QOL, for the good life is much more than a commodity to be produced, distributed and consumed. The philosopher Kingwell (2000: 207) in his book: **The World We Want: virtue, vice and the good citizen**, examines the concept of quality of life and he reminds us of the unstable relationship that many thoughtful people encounter between *success* and *meaning*. “They want to know what it all means, what their personal prosperity is in aid of: fulfillment, virtue, happiness, something. They want a *telos* of some kind, in other words, an end in view that helps to make life worth living.” The search for the good life can be construed as the good life. “Planners, bureaucrats, politicians, non-governmental organizations and the public have tried to influence planning processes and outcomes to change conditions and circumstances that are perceived to be detrimental to QOL, and to promote projects that protect and enhance the material and cultural milieu within which QOL improves.”

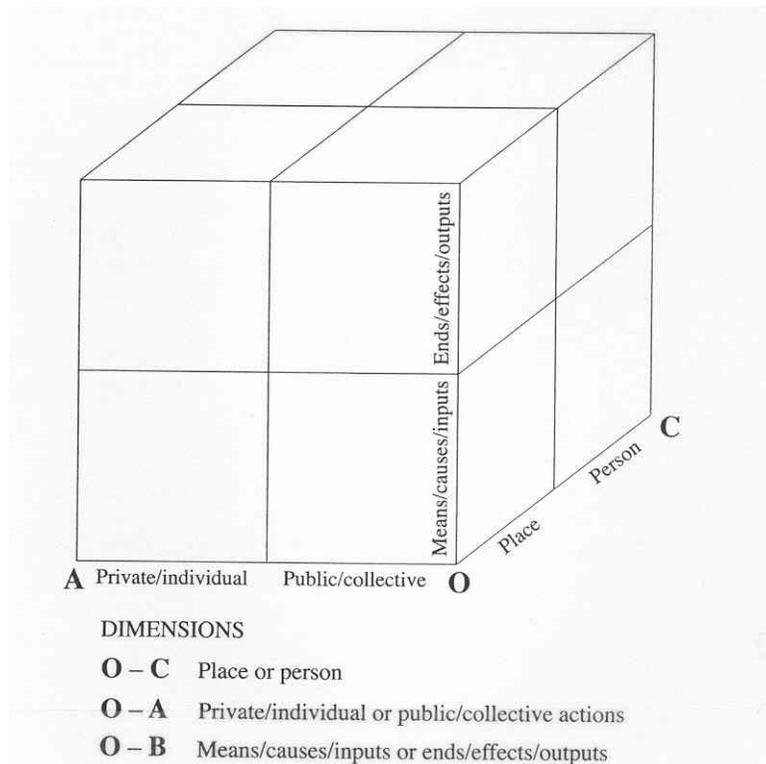
It is clear that QOL should not be treated as a commodity that has objective attributes which allow it to be traded and marketed in a money economy. QOL relates to the essence of human existence in all its complex shades of hope and confidence as well as negative aspects of existence like despair, sickness and anomie.

Myers (1988: 353) has offered a very useful table (Table 1) that summarizes the major differences among alternate approaches to measuring QOL. Murdie et al. (1992) provide an overview, shown in Figure 4, of the variety of approaches to the study of QOL. To complement this, Figure 5 presents a summary of the three basic dimensions regarding the study of QOL. The first dimension indicates that the focus can be on either the *private/individual* or *public/collective* perspective; the second dimension divides the study of QOL into a focus on either *means/input/causes* or *ends/output/effects*, and the third dimension suggests that the focus can be on either *place* or *person*. Further it is implicit that the study of QOL relies on subjective as well as objective data. The case studies presented in this report rely on subjective data derived from questionnaire surveys of individuals.

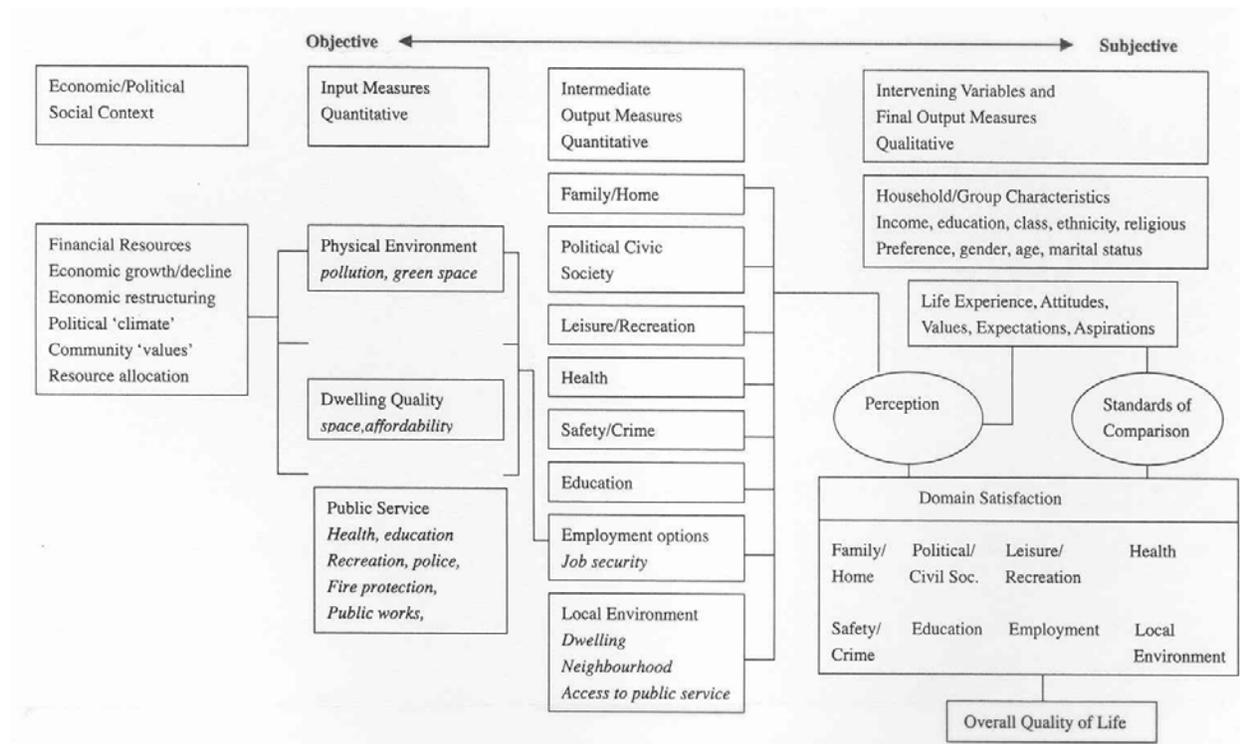
**Table 1: Alternative approaches to knowledge about quality of life (source: Myers, 1988: 353)**

Distinctions	Approaches			
	Livability comparisons	Wage differentials	Personal well-being	Community trends
Origins of professional approach	Journalism, geography, or other	Economics	Psychology, sociology	Recommended approach for planners
Measurement focus	Shared, objective characteristics of communities using secondary data	Disamenity compensation using secondary data	Determinants of life satisfaction based on personal interviews	Local trends in components of quality of life using secondary data and personal interviews
Statistical means	Additive combinations of objective indicators using weights supplied by researcher judgment	Regression models estimating weighted contribution of objective amenities to wage differentials between places	Regression models estimating weighted contribution to self-evaluations of different life domains to overall life satisfaction	Objective indicator profile of changing community character and subjective citizen assessment of each separate factor
In past has directed attention to	Which places are 'better' or 'worse'	Which places must pay higher wages	Personal characteristics and private life	Which factors are growing better or worse—emphasis on the future and citizen priorities
Political/economic implications of past work	Aids competition for relocating firms and workers	Indicates lower/higher costs of doing business	Local government cannot help much	Highlights local problems and goals related to development process

**Figure 4: A typology of approaches to the quality of life**



**Figure 5: Conceptual framework for quality of life at the urban level (source: Murdie et al., 1992)**



#### **4.0 Empirical Studies of Rural Communities in Jalisco**

This section will focus on the analysis of scores for indicators relating to QOL in order to describe the overall QOL of people and places. The first part will discuss the use of two multi-criteria techniques for analyzing a set of QOL data. The two techniques are the Aspiration Interaction Method (AIM) and Decisions on a FINITE set of alternatives (DEFINITE). Specifically we will use a hypothetical data set for nine indicators and a set of eleven individuals. The justification for the selection of the nine indicators will be provided. It is assumed that each individual has provided a score for each indicator. The multi-criteria techniques will be used to classify and rank the overall QOL of the individuals. A discussion on the use of such a classification for planning purposes will be offered. Following this analysis of hypothetical data that were collected in 2000 a similar approach will be used to analyse data for individuals in three towns in Mexico (El Tuito, Las Palmas, Ixtapa). The analysis will be used to provide a score for the QOL in each of the towns. The multi-criteria technique to be used in this work is a composite one developed by Hwang and Yoon (1981) that involves a set of procedures. Details will be given later. Also in this section we will present the results of the analysis of data for El Tuito and Tomatlán as well as Puerto Vallarta that were collected in 2003.

#### **4.1 The Generic QOL Classification Problem**

Renwick and Brown (1996) have developed a procedure to collect information from individuals concerning their perceptions of their QOL. This work is discussed in Massam (2002). Basically a questionnaire is used and individuals are asked to indicate the importance and satisfaction levels for a set of indicators relating to QOL. The terms 'importance' and 'satisfaction' correspond to the terms 'importance' and 'magnitude' referred to in the work of Renwick and Brown (1996). In the Mexican case studied discussed later the terms 'importance' and 'achievement' will be used. The measurement scale is a five-point ratio one. A value of 5 indicates very high importance and satisfaction/magnitude/achievement while a value of 1 indicates very low level of importance and satisfaction/magnitude/achievement. A value of 3 is interpreted as neutral in the sense of neither contributing positively or negatively to QOL. The scores for importance and satisfaction/magnitude/achievement are combined to derive an overall QOL score. The conversion table is shown on Table 2. It is noted that this conversion does not use a typical simple additive weighting (SAW) model to combine the importance and satisfaction/magnitude/achievement scores. In the paper by Massam et al (2001) this point is elaborated. The paper is available on the web site (<http://www.geodec.org/>). The set of nine indicators are derived from the arguments of Renwick and Brown (1996) that there are three aspects of QOL for an individual namely, being, belonging and becoming and that each of these embraces three dimensions. The dimensions are shown below:

**Table 2: Calculation of QOL scores using importance and achievement (satisfaction) ratings (source: Brown et al., 1998: 16)**

<b>If Importance =</b>	<b>And satisfaction=</b>	<b>Quality of Life Score =</b>
5	5	+10
	4	+5
	3	0
	2	-5
	1	-10
4	5	+8
	4	+4
	3	0
	2	-4
	1	-8
3	5	+6
	4	+3
	3	0
	2	-3
	1	-6
2	5	+4
	4	+2
	3	0
	2	-2
	1	-4
1	5	+2
	4	+1
	3	0
	2	-1
	1	-2

Being- physical: my body and health  
psychological: my thoughts and feelings  
spiritual: my beliefs and values

Belonging- physical: where I live and spend my time  
social: the people around me  
community: my access to community resources

Becoming- practical: the daily things I do  
leisure: the things I do for fun and enjoyment  
growth: the things I do to cope and change.

The generic QOL classification problem can be stated as follows:

‘Given a set of observations units, for example, people or places, and a set of indicators which characterize individual components of QOL, for each person or place, and for each indicator a measure of the importance and satisfaction/magnitude/achievement, combine the scores for all the indicators and generate a summary QOL score for each person or place.’

A ranking of the people or places can be produced from these summary scores. From a planning perspective it is important that the procedure used to tackle the problem of data analysis be clearly presented so that the arguments can be scrutinized, and the logic examined to ensure it is acceptable to the users of the results. In order to assist in public planning it is useful to provide information on QOL scores in such a way that alternate policies can be evaluated and compared, and a preferred policy to enhance QOL can be presented. With this in mind, if we have different rankings of individuals using different policy scenarios regarding the importance of the indicators then it may be possible to suggest which individuals benefit or suffer under each policy option. This approach typically uses aggregate analysis with the same set of weights or levels of importance being assigned to the indicators by each individual. The SAW model is often used to tackle the generic QOL classification problem. Hwang and Yoon (1981, 99) suggest that the ‘...simple additive weighting (SAW) method is probably the best known and very widely used methods of Multi Attribute Decision Making.’ While we might contest the legitimacy of using a simple additive function for combining scores in order to obtain a single QOL score for each person or place, it has been argued by Hwang and Yoon (1981, 103) that ‘...theory, simulation computations, and experiences all suggest that the SAW method yields extremely close approximations to very much more complicated non-linear forms, while remaining easier to use and understand.’

A review of the errors that are associated with the SAW model is given by Rowe and Pierce (1982). They use hypothetical data and introduce errors of known types and magnitudes in an attempt to determine ‘...in a general way the sensitivity of the weighting summation decision model to some classes of error to which it is subject.’ For those who rely on SAW models it is important that clear recognition of potential errors is incorporated into the study, and specifically that sensitivity tests be part the analysis. This sensitivity-testing aspect of multi-criteria analysis is contained within the software package in DEFINITE. Solomon and Haynes (1984) also conclude that while there are a variety of models for accumulating impacts into a final score

‘...the use of the simple weighting summation is probably justified.’ In philosophical terms we are reminded of the debate propounded by Moore in *Principia Ethica* when he argued that the worth of what he termed an organic whole, such as QOL, bears no regular proportion to the sum of the values of its parts. In particular Rosenbaum (1975: 127) argues that ‘...the value of a whole must not be assumed to be the same as the sum of its values of its parts.’ Further we should note that if we wish to defend the use of a SAW model the following two conditions should be satisfied. First, the preferences for or the trade-off for pairs of indicators should be preferentially independent of fixed levels for any other indicators. Second, that indicators should be utility independent of other indicators. However, rarely are such formal conditions tested rather the assumption is that the SAW model is robust, easy to use and generally acceptable to tackle the generic QOL classification problem.

#### **4.2 Analysis of QOL Data Using Aspiration Interaction Model (AIM)**

This model requires three pieces of information for each indicator: an ideal value ( $I_i$ ), a nadir value ( $N_i$ ) and a desired/acceptable or aspiration value ( $A_i$ ). Scores for each indicator for each person or place are required. Details of AIM as a multi-criteria technique are given in Massam (1993) and its application to the problem of classifying the QOL of individuals is presented in Massam (1999). Details of this paper are available on the web site (<http://www.geodec.org/>). The idea of AIM is based on the approach of a satisficing solution rather than an optimizing solution. Levels of aspiration are used to explore the set of non-dominated solutions and classify the people or places with respect to the ideal and the aspiration levels for each indicator. The technique does not require weights or levels of importance to be assigned to each indicator. However, AIM does calculate weights for each indicator using information on the ideal, nadir and aspiration levels for each indicator. The weight for an indicator ( $W_i$ ) is calculated from the formula  $W_i = (A_i - N_i) / (I_i - N_i)$ . It is argued that  $I_i$  and  $N_i$  represent maximum and minimum values, or best and worst scores for each indicator.  $A_i$  represents an acceptable or aspiration level for each indicator.  $A_i$  can be set to a level to suit the wishes of the user of AIM. For example, if  $A_i = I_i$  this implies that the user attaches a lot of importance to indicator  $i$ , and a high weight is assigned to it. On the other hand if  $A_i = N_i$  then the user attaches no importance to indicator  $i$ . If  $A_i = I_i$  for all indicators then the indicators are assigned equal weights as they are seen as equally important. Alternate values for  $A_i$  can be used to describe different policy scenarios. For example, if it is assumed that those indicators concerned being are of no importance, these indicators can be set to the level of  $N_i$ . Under different scenarios perhaps different ranking of the individuals may result and this information can be used to evaluate alternate policies. For instance, if certain individuals rank high when a particular set of indicators is weighted heavily then a policy that focuses on improving these indicators will yield benefits to these individuals.

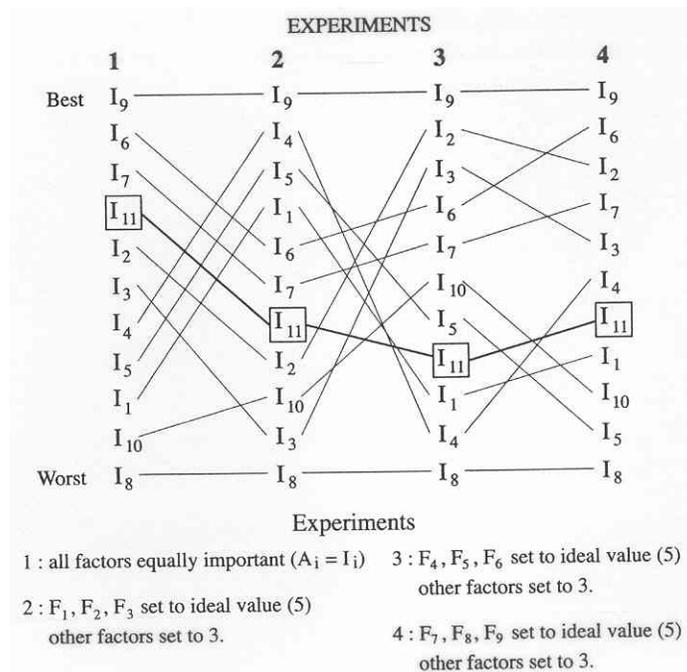
A hypothetical set of data for nine indicators and eleven individuals is given on Table 3. The nine indicators are grouped into three sets referring to the categories being, belonging and becoming as mentioned earlier. Using the data in Table 3 four experiments have been conducted under different assumptions regarding the aspiration levels for the groups of indicators. Each experiment generated a different ranking of the individuals. Details of the rankings and the experiments are given on Figure 6.

**Table 3: Hypothetical data set: 11 individuals and 9 indicators<sup>1</sup>**

	Being			Belonging			Becoming		
	F <sub>1</sub>	F <sub>2</sub>	F <sub>3</sub>	F <sub>4</sub>	F <sub>5</sub>	F <sub>6</sub>	F <sub>7</sub>	F <sub>8</sub>	F <sub>9</sub>
I <sub>1</sub>	4	5	4	2	1	2	2	3	2
I <sub>2</sub>	3	2	2	4	5	4	4	3	4
I <sub>3</sub>	1	1	1	5	5	5	3	3	3
I <sub>4</sub>	5	5	5	1	1	1	3	3	3
I <sub>5</sub>	5	5	5	3	3	3	1	1	1
I <sub>6</sub>	4	3	4	4	3	4	4	3	4
I <sub>7</sub>	3	4	3	3	4	3	3	4	3
I <sub>8</sub>	1	1	1	1	1	1	1	1	1
I <sub>9</sub>	5	5	5	5	5	5	5	5	5
I <sub>10</sub>	1	2	3	3	4	5	1	5	5
I <sub>11</sub>	3	3	3	3	3	3	3	3	3

<sup>1</sup> A score of 5 on an indicator is the highest value and contributes positively to QOL. A score of 3 represents a neutral contribution to QOL. A score less than 3 represents negative contributions to QOL. I<sub>9</sub> has the overall highest QOL with 5 for each indicator. I<sub>8</sub> has the overall lowest QOL with 1 for each indicator. I<sub>11</sub> is a marker individual separating positive from negative scores for QOL. F<sub>1</sub>–F<sub>9</sub>: indicators.

**Figure 6: Classification of individuals: four experiments using AIM**



A marker individual (11) is included among the eleven individuals. This marker is assigned a score of 3 for each indicator and this is the neutral level for QOL. Individuals 8 and 9 are assigned minimum and maximum scores respectively for each indicator, and they serve as reference individuals. If all indicators are equally important then only three individuals 9, 6 and 7 rank better than marker 11. However, if emphasis is placed on specific groups of indicators, while setting the aspiration level to 3 for all other indicators, then many more individuals appear to have overall positive QOL scores, that is a score superior to the score for the marker (11). When emphasis is placed on the three indicators concerning being, then individuals 2, 10, 3 and 8 have negative QOL scores. For experiment 3, which places emphasis on the indicators concerning belonging, individuals 1, 4 and 8 have negative QOL scores. Finally, for experiment 4 that places emphasis on indicators relating to becoming, individuals 1, 10, 5 and 8 have negative scores. On Figure 6 lines that join the individuals for each experiment indicate the shifts in positions among the four experiments. While individuals 9 and 8 occupy stable end positions, as is to be expected given the scores shown on Table 3, the variations in rankings are interesting. For example, only individuals 6 and 7 have positive QOL scores for all experiments. Individual 10 is consistently low, and only for experiment 3 is a modest positive QOL score achieved. Individual #2 moves from a negative score for QOL for experiments 1 and 2 to very positive scores for experiments 3 and 4.

The significance of the shifts in ranking provides useful information for planning purposes. For example, if a finite amount of resources is available to allocate among the indicators to improve overall QOL, then the question is what proportion should be allocated to each indicator to achieve greatest overall improvement to QOL? If we assume the total resource base is unity (1.0) then the allocation to the indicators can be represented by the weights assigned using AIM. For experiment 1, the weights for each indicator are 0.111. The sum is unity. For experiments 2, 3 and 4 the weights assigned to the most important indicators are each 0.167, and the weights for the other indicators are each 0.083. The allocation of weights that generates the least number of individuals with positive QOL scores is experiment 1 in which all indicators are equally important. However, it could be argued that if resources are focused on one of the three clusters that focus on being, becoming or belonging then many more individuals enjoy positive QOL scores. Experiment 3 is perhaps the preferred one in terms of generating the largest number of positive QOL scores, though individuals 1, 4 and 8 remain with low scores and probably deserve special attention.

In summary AIM appears to be a useful multi-criteria technique to classify individuals in terms of scores for independent indicators relating to QOL. A particularly interesting feature of AIM that makes it useful concerns the ability of the user to assign aspiration levels for each indicator, and hence avoid the difficulties of defining explicit weights of importance for each indicator. By conducting a series of experiments with AIM using different aspiration levels to represent alternate planning policies then the effects on the rankings of the individuals using QOL scores can be examined. From a planning perspective it is important to link the descriptive aspects of multi-criteria analysis to prescriptive approaches that help to use public resources effectively.

To complement the analysis using AIM another multi-criteria technique will be used to analyse the data in Table 3. This technique is DEFINITE.

### 4.3 Analysis of QOL Data Using DEFINITE

DEFINITE is a multi-criteria computer programme that was developed in the Institute for Environmental Studies at the Free University of Amsterdam. The software was released in 2001. Details are available from (definite@ivm.vu.nl). The technique contains two basic procedures (multi-criteria analysis – MCA - and cost-benefit analysis - CBA) to evaluate a set of options using scores for a set of indicators to search for a preferred option. The procedures can be applied to the generic QOL classification problem stated earlier in which, rather than search for the person or place with the highest QOL, a ranking of the people or places is provided, from best to worst. The data in Table 3 were analysed using the MCA in DEFINITE and the associated sensitivity tests. The MCA that is used in DEFINITE is essentially a simple additive weighting procedure. DEFINITE not only uses scores for each indicator to calculate an overall QOL score for each individual, but it also allows a series of sensitivity tests to be run as part of the analysis. This is an important part of tackling the generic QOL classification problem as clearly the scores assigned to each indicator can be treated as estimates or probability scores, and so we should examine the rankings under different scenarios regarding the estimates of the scores for the indicators. If we find that under a variety of sensitivity tests the ranking are unchanged then we can conclude the order is a stable one, however this may not always be the case and we need to know this as part of the information to keep in mind when preparing a planning report.

There are five different methods for entering the weights for the indicators into the MCA. Two methods will be used in this analysis. First, the ‘direct assessment method’, in which explicit weights are entered for each indicator. Second, the ‘expected value method’, which first asks the user to stipulate the indicators that have the same level of importance, and then those indicators that have a ‘lower level’ of importance. Once the information has been entered into DEFINITE it is incorporated into the SAW technique to derive an overall QOL score for each individual, and a ranking of individuals is produced. The results for the analysis of the data in Table 3 for each of the four experiments, using the two methods for entering the weights, are given on Table 4. A summary of the details of the experiments is given on Table 5.

**Table 4: Results for the analysis of data in Table 3 using DEFINITE**

		Experiments																							
		A <sub>1</sub>	B <sub>1</sub>	C <sub>1</sub>	D <sub>1</sub>	E <sub>1</sub>	F <sub>1</sub>	A <sub>2</sub>	B <sub>2</sub>	C <sub>2</sub>	D <sub>2</sub>	E <sub>2</sub>	F <sub>2</sub>	A <sub>3</sub>	B <sub>3</sub>	C <sub>3</sub>	D <sub>3</sub>	E <sub>3</sub>	F <sub>3</sub>	A <sub>4</sub>	B <sub>4</sub>	C <sub>4</sub>	D <sub>4</sub>	E <sub>4</sub>	F <sub>4</sub>
Best	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
	6	6	6	6	6	6	4	4	4	6	6	6	3	3	3	6	6	6	6	6	6	6	6	6	6
	2	2	2	2	2	2	5	5	5	4	4	4	2	2	2	2	2	2	2	2	2	2	2	2	2
	7	7	7	7	7	7	6	6	6	5	5	5	6	6	6	3	3	3	3	10	10	10	7	7	7
	10	10	10	10	10	10	1	1	1	7	7	7	10	10	10	10	10	10	10	7	7	7	10	10	10
	11	11	4	11	11	4	7	7	7	2	2	2	7	7	7	7	7	7	7	11	4	3	3	3	3
	3	3	3	3	3	3	11	11	11	1	1	1	11	5	5	11	5	5	5	3	3	4	4	4	4
	4	5	5	4	5	5	2	2	2	11	11	11	11	5	11	11	5	11	11	4	11	11	11	11	11
	5	4	11	5	4	11	10	10	10	10	10	10	10	1	1	1	4	4	4	1	1	1	1	1	1
	1	1	1	1	1	1	3	3	3	3	3	3	3	4	4	4	1	1	1	5	5	5	5	5	5
Worst	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

**Table 5: Details of experiment: DEFINITE**

Experiment	Weight of indicators	Weighting method	
A <sub>1</sub>	All equally important	Expected value method	
B <sub>1</sub>			
C <sub>1</sub>			
D <sub>1</sub>			Direct assessment method
E <sub>1</sub>			
F <sub>1</sub>			
A <sub>2</sub>	F <sub>1</sub> , F <sub>2</sub> , F <sub>3</sub> (being) weighted very important. Others weighted less important.	Expected value method	
B <sub>2</sub>			
C <sub>2</sub>			
D <sub>2</sub>			Direct assessment method (0.167:0.083)
E <sub>2</sub>			
F <sub>2</sub>			
A <sub>3</sub>	F <sub>4</sub> , F <sub>5</sub> , F <sub>6</sub> (belonging) weighted very important. Others weighted less important.	Expected value method	
B <sub>3</sub>			
C <sub>3</sub>			
D <sub>3</sub>			Direct assessment method (0.167:0.083)
E <sub>3</sub>			
F <sub>3</sub>			
A <sub>4</sub>	F <sub>7</sub> , F <sub>8</sub> , F <sub>9</sub> (becoming) weighted very important. Others weighted less important.	Expected value method	
B <sub>4</sub>			
C <sub>4</sub>			
D <sub>4</sub>			Direct assessment method (0.167:0.083)
E <sub>4</sub>			
F <sub>4</sub>			

There is a very high correlation among the rankings for all the experiments. When the Spearman rank correlation coefficient is calculated the lowest value is 0.91, most of the values are 0.98 or 0.99. This clearly indicates that the ranking of individuals is stable, no matter which method is used to introduce the weights to measure the importance of the indicators. Also when the scores for the indicators are treated as probability values with 10% or 20% variation consistent results are generated.

If we compare the results shown on Figure 6 which were produced using AIM with those shown on Table 4 that were produced using DEFINITE, then for experiments 2, 3 and 4 there are very strong similarities among the rankings. The Spearman rank correlation coefficient is consistently very high: the lowest value is 0.92 with most values being close to 0.98. We can conclude that if

either AIM or DEFINITE is used to produce a ranking of individuals for this set of data, when we place emphasis on one of the sets of indicators relating to being, belonging or becoming, by assigning this set high importance, then the overall ranking is stable. For example, for experiment 2, which places high importance on the indicators relating to being, it is individuals 4, 5, 6, 1 and 7 who enjoy positive QOL compared to individuals 2, 10, 3 and 8 which fall into the negative category, below the marker individual (11). For experiment 3, which places high importance on belonging, the individuals that have positive QOL are 3, 2, 6, 10 and 7. For experiment 4 which emphasize becoming it is individuals 9, 6, 2, 7, 10, 3 and 4 that tend to have positive QOL scores.

With respect to experiment 1 the correlation between the results from AIM and DEFINITE yield Spearman coefficients that range between 0.74 and 0.83. While these are high values it is worth noting that AIM suggests that few individuals enjoy positive QOL scores, while DEFINITE places the marker individual lower in the ranking and thus more individuals appear to have positive QOL scores, albeit with overall similar rankings of the individuals.

In summary it appears useful to tackle the QOL classification problem using different multi-criteria techniques, and a variety of methods for introducing weights for the importance for the indicators. Also to examine the effects of using probability estimates for the scores for the indicators in order to evaluate the credibility of the overall ranking of individuals. If different techniques yield different rankings when the same data set is analysed then we should wary of accepting the results as part of a planning exercise. Similarly if variations in the ranking occur when the scores for the indicators are treated as probability estimates, then we should pay careful attention to the procedures used to collect the initial scores in the study to ensure they are accurate reflections of the feelings of the individuals. The results of the analysis presented in this section strongly suggest that AIM and DEFINITE produce consistent results which could potentially assist planning to improve the QOL of individuals. However further research on the use of other multi-criteria techniques for tackling the QOL classification problem is called for.

#### **4.4 The QOL in Towns in Jalisco**

In this part of the report the focus will be on the analysis of empirical data collected in 2000 for three towns in the state of Jalisco, Mexico. The data will be used to derive a QOL for each individual we interviewed in each town, and a QOL score for each town. Jalisco, with a total population of over six million, is an important international tourist destination that is currently in a period of major expansion. Puerto Vallarta is the fifth largest city in the state of Jalisco and the second most visited destination in Mexico. (*Property Journal*, December 8, 2000) The locations of Puerto Vallarta and the study towns are shown on Figure 1. Initial fieldwork and some data collection were undertaken in February 2000 with the bulk of the data being collected in December 2000.

Tourism has been critical to the growth of the Vallarta region. Despite the increase in tourism, population increase has been (until recently) quite slow. From 12,500 in 1964, by 1970 the population of the settlement had risen to only 24,115. However, by the mid 1990s the population of Puerto Vallarta had grown to 162,000 and that of the Jalisco coast, which can be viewed as "greater Vallarta" now has an estimated population of over 350,000. Two thirds of this number is

found within the urbanized area centred on PV (Jiménez Martínez, 1998; <http://www.pvconnect.com/map.html>). The region is currently estimated to have at least 15,000 hotel rooms (<http://www.allaboutpuertovallarta.com/>), and receives two million visitors annually. Puerto Vallarta now receives about 30% of the total tourism of Jalisco State. Between 1970 and 1990 the tertiary sector of the economy has increased in value from 59% to 82%, with the primary sector dropping from 10 to 2%, and the secondary sector from 24 to 16% (Jiménez Martínez, 1998). Despite these factors, and although the coastal areas and the immediate hinterland of Vallarta have been dramatically affected by tourism in recent years, settlements inland have been affected to a lesser extent. However, it seems probable that influences upon the more distant hinterland of Vallarta are going to increase in the future. This is particularly likely as the thrust of tourist growth moves from one solely concerned with "sun, sand, and sea" to one that is more concerned with sustainable practices and ecotourism. The "Alliance for Change" between the Green Ecologist Party and the newly elected Mexican President's National Action Party (PAN) is likely to influence environmental policy, and the thrust of Mexican tourism (Diebel, 2000).

The next section (4.41) will describe the three towns that were used as test locations for data collection in 2000 as well as a fourth visited in 2003. This will be followed in section 4.42 by a discussion of the procedures used to analyze some of the numerical data we collected in the questionnaire. As mentioned at the beginning of this section Renwick and Brown (1996) used the terms 'importance' and 'satisfaction' in discussing the indicators that contribute to QOL. In this study we will use importance to refer to the opinion each individual expresses with respect to the significance of an indicator as contributing to overall QOL. We use achievement to replace the term satisfaction as the preferred word for an individual to use to express an opinion about how successful they are at achieving a high level for each indicator. Using information on importance and achievement for indicators an overall score for QOL for each of the three towns is calculated. A multi-criteria algorithm will be used to classify and rank individuals in each town in terms of their personal QOL. Section 4.43 will offer some empirical results and preliminary interpretations, and section (4.44) will include comments on the relationship between QOL and tourism in the three study towns, the use of questionnaire surveys for tracking this kind of information and future work to be undertaken.

Renwick and Brown (1996) suggest that quality of life (QOL) means, simply, how good one's life is for an individual, and Clark (2000: 700) notes "...that quality of life for an individual is affected significantly by his or her social environment". The "economy and the quality of life" is an area of concern for the recently elected Mexican President and constitute one arena where proactive policy making is likely by the federal and state governments in the near future as related to the growing tourist sector of the economy (Diebel, 2000). A considerable body of literature has been built up on the impact of tourism, and it has been suggested by Pearce that this is "...perhaps the most widely studied aspect of tourism" (1995: 171).

#### **4.41 Four towns in Jalisco.**

Although Jalisco has several large cities it also contains many smaller towns. Three of these smaller centres that lie within the hinterland of Puerto Vallarta, Ixtapa, Las Palmas, and El Tuito, are the subjects of the study using the data collected in 2000. The town of Tomatlán was visited

in February 2003 and we collected QOL data. Also we re-visited El Tuito in 2003 and collected a second set of QOL data to complement the data collected in 2000. This allows us to examine changes over the three-year period in terms of evolving perceptions of QOL in this town.

Ixtapa (population c.15, 000) is a well-established central place in the municipio of Puerto Vallarta that lies about 20 km northeast of the city of Puerto Vallarta. It may once have been of greater numerical significance than PV itself, but has now become dependent upon Vallarta for much of its economic viability (Massam and Everitt, 2001). In the past few years Ixtapa has been re-invigorated by the tourist trade. Although only marginally a tourist destination itself, it has become a dormitory exurb for Vallarta, with people commuting the few minutes to their jobs on the coast on a daily basis. A considerable amount of new housing (rental and owner-occupied) has been built to serve in-migrants from the hinterland of Vallarta, and also to serve an overspill population from PV which has been pushed out of that city by an increase in the tourist landscape (Everitt et al., 2001).

Las Palmas (population c. 4,000) is an agriculturally based mountain town to the north east of the city Puerto Vallarta (in the municipio of Puerto Vallarta) about thirty-five kilometres away from the city. Although currently somewhat isolated along mountain roads of indifferent quality, it is connected by regular bus service to Vallarta, and a projected inland road from PV to Guadalajara might one day put Las Palmas in a much more valuable (and vulnerable) position to become involved in the tourist trade. Some tourists do venture to this town using the local intercity bus services, or by rental vehicle, but it is at present little affected by outside tourist-based operations.

El Tuito (population c. 3,000) is another agricultural town nearly fifty kilometres to the south east of Vallarta, in Cabo Corrientes municipality. It is accessible via route 200 that runs through Mismaloya to Barra de Navidad. In guidebooks it is characterised as a tourist resort that has typical adobe housing with tiled roofs, although it currently appears to be more of a stopping point for tourists on the way to other places, and for those interested in ecotourism. There are some tourist-oriented services along the main highway (motel, restaurant, gas station etc.) but not within the town proper. There are petroglyphs within 10 km of El Tuito, and the town affords access to some of the coastal settlements on the Bay of Flags to the southwest of Mismaloya and thus it is an area where future tourist development is likely.

Tomatlán (population c. 7,800) is located in Tomatlán municipality that is situated in a lowland area south of Puerto Vallarta on the Tomatlán River. Although primarily an agricultural centre, it is located close to some breathtaking beaches in the south of Jalisco, and is not far off Highway 200 (the main road PV to Barra de Navidad). There are some older hotels in the town in addition to one brand-new structure that is anticipating a growth in tourism in this part of the state. In addition, there is a lively central plaza, an early eighteenth century church, as well as petroglyphs and other archeological sites in the surrounding region (<http://visita.jalisco.gob.mx/espanol/inicio.html>). Its potentially advantageous situation for tourist development has been enhanced by the construction of a dam that has produced a large lake with water sports and other recreational potential.

#### 4.42 Procedures for calculating QOL scores.

Two formal procedures will be used to calculate QOL scores. The first procedure will employ a three-step process to calculate a single score for the QOL in each town. This score will be derived from the empirical data collected in 2000 from the sample of respondents in Las Palmas, Ixtapa and El Tuito. Each respondent provided scores for the importance and achievement for each indicator. A 5-point scale was used. Our initial objective was to collect data for three points in time, relating to the perceptions of respondents on the current situation, the last five years and the next five years. Hence for each town three QOL scores could have been calculated, and trends may be evident. However, the data collection exercise, given the resources available for this preliminary study, did not allow us sufficient time in each place to collect a full set of data for the three points in time. In summary only in the case of Ixtapa were we able to collect a full set of data (28 respondents): in the case of El Tuito there were 24 respondents and we collected data for the current situation and with respect to the last five years. For the town of Las Palmas there were 23 respondents and the data only refer to the current situation.

For the survey of the perceptions of 15 indicators we used a questionnaire that was developed and tested in Puerto Vallarta in February 2000 (Massam and Everitt, 2001). The first set of nine questions solicits basic information about each respondent. The answers to question 10 provide the raw data about the indicators that are used to calculate QOL scores. Questions 11-17 require each respondent to give information about their perceptions of QOL. While most respondents quite readily provided answers to questions 1-9 they had more difficulty in interpreting and answering questions 11-17.

The selection of the 15 indicators in question 10 was determined after a review of web sites and surveys on QOL, the field testing in February 2000 and using the advice of colleagues from the Universidad de Guadalajara, Centro Universitario de la Costa, Campus Puerto Vallarta. The list of factors and average importance scores is shown on Table 6.

**Table 6: Indicators used in the analysis: Importance scores**

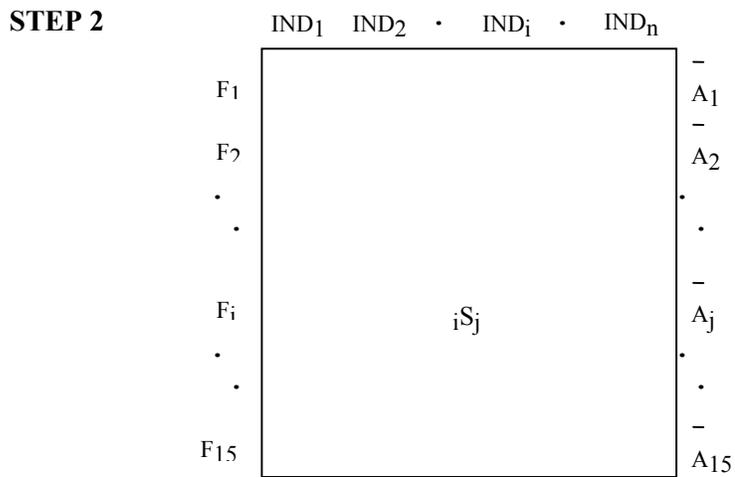
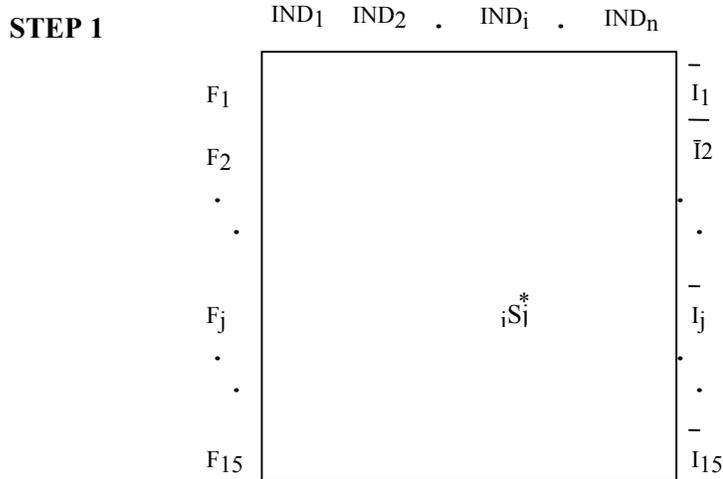
Factors	Towns		
	IXTAPA	ELTUITO	LAS PALMAS
1 health	5	5	5
2 cost of living	4	4	4
3 work opportunities	5	3	4
4 housing	4	4	4
5 family	5	5	5
6 friends	4	4	5
7 tourism	4	4	4
8 shopping	3	4	4
9 transportation	4	5	4
10 holidays	3	4	4
11 water	5	5	5
12 air	5	4	5
13 noise	4	4	4
14 peace and tranquility	5	4	5
15 education	4	4	4

The first procedure follows the approach developed by Renwick and Brown (1996). The sequence of three steps we used to convert the raw empirical data into a single aggregate-level QOL score for each town is shown on Figure 7. Basically the first step uses replies to Question 10 to calculate an average score for the perceived importance attached to each of the 15 indicators. If the average score is 5 then each respondent rated the indicator as having ‘extremely high’ importance. However if the average value is 1 then each respondent rated the indicator as extremely unimportant. The next step is to use the data from Question 10 to calculate an average score for the perceived level of achievement for each indicator. An average value of 5 indicates an extremely high level of achievement, whereas a value of 1 indicates an extremely poor level of achievement. The final step is to combine the two sets of average scores for importance and achievement from Figure 7. The conversion chart is shown on Table 2. For example, if an indicator has a score of 5 for importance and 5 for achievement then the QOL score is +10. If the combination of scores is 5 for importance, and 1 for achievement then the QOL score is -10. Given we have 15 indicators the final QOL score is the sum of 15 individual QOL scores divided by 15. This final score is the aggregate overall QOL score for the current situation in the study town. The scores on Table 2 assume that values for importance and achievement are expressed as integers -- 1, 2, 3, 4 or 5. However, for our study the values for each indicator as shown by the average values are not always integers. Hence in the determination of a QOL score using non-integers for importance and achievement scores we have estimated an appropriate value for QOL using Table 2 as the basic classification. The empirical results for the three towns are given in section 4.45. Guidelines for interpreting the QOL scores are shown on Table 7.

**Table 7: Interpreting QOL scores (source: Brown et al., 1988: 15)**

<b>Interpreting Scores</b>
<ul style="list-style-type: none"> <li>• Quality of Life scores above 0 reflect positive quality of life and those below 0 represent negative quality of life.</li> <li>• Items rated as especially importance produce especially high QOL scores for items where high enjoyment is indicated. Similarly, items rated as especially important produce especially low Quality of Life scores where lack of enjoyment is indicated.</li> <li>• To illustrate, an individual who describes an item as Very Important (4) and reports being Very Satisfied (4) receives a score of 4. An individual who rates an item as Not Very Important (2) and reports being Not Very Satisfied (2) receives a score of -2. Items rated as being less important produce more moderate Quality of Life scores.</li> <li>• Overall, a Quality of Life score of 4.5 or higher is considered excellent and scores of 1.5 to 4.5 indicate a very acceptable situation. Scores of -1.5 to +1.5 indicate an adequate situation, scores of -1.5 to -4.5 are problematic, and scores less than -4.5 are very problematic.</li> </ul>

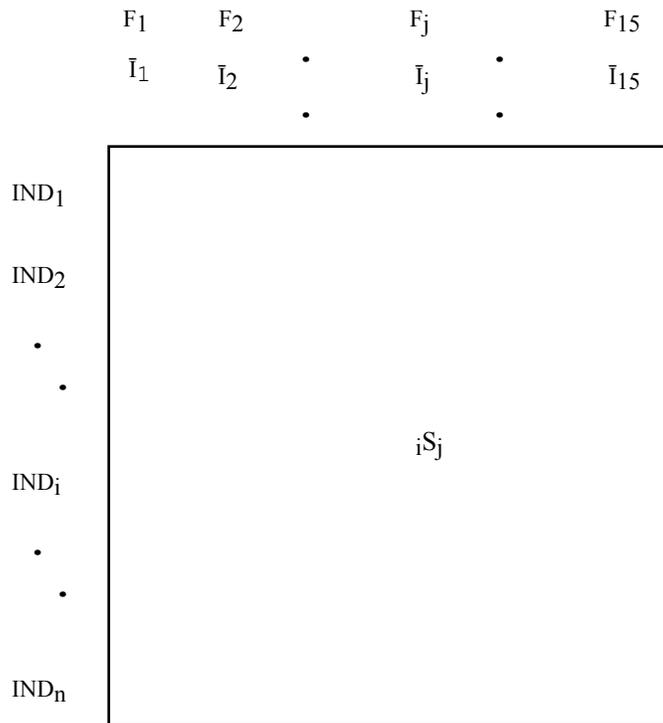
**Figure 7: Steps to convert importance and achievement ratings into a QOL score**



**STEP 3** Use conversion table shown in Figure 4 to combine importance and achievement ratings to calculate QOL

F <sub>1</sub> -F <sub>15</sub>	factors	$iS_j$	achievement rating for ind1 for factor j
IND <sub>1</sub> -IND <sub>n</sub>	Set of individuals in town	$\bar{I}_j$	average rating of importance for factor j
$iS_j$	Importance rating for IND <sub>1</sub> for factor j	$\bar{A}_j$	average rating of achievement for factor j

**Figure 8: Data matrix for classification of individuals**



- $F_1-F_{15}$             factors
- $\bar{I}_1-\bar{I}_{15}$             average values for importance of each factor
- $IND_1-IND_n$         set of individuals in town
- $iS_j$                     achievement rating for  $IND_i$  for factor  $j$

The second procedure we use to generate QOL scores is a multi-criteria classification method. Specifically for each study town we create a matrix of the style shown on Figure 8. The data shown in the matrix can be treated as the input to a multi-criteria classification algorithm. The particular algorithm used in this project is based on the work of Hwang and Yoon (1981). A discussion of the algorithm is given in Massam (1993). The method, as used in this study, considers the achievement score for each indicator assigned by an individual and the importance attached to each indicator. This latter set of scores is the average scores shown on Figure 6. If an individual perceives the achievement level for each indicator to be extremely high then a score of 5 is assigned to each indicator. And if all indicators are considered to be extremely important by all individuals then a score of 5 is assigned as the importance score to each indicator. Overall we would expect this individual to exhibit a very high overall QOL score and rank highly. However, if an individual perceived a low level of achievement on each indicator and hence assigns scores of 1 to each indicator then the overall QOL is probably going to be low and the individual will rank at the low end in terms of QOL. The algorithm generates a ranking of individuals with respect to QOL. The results for each town are given in section 4.45.

The classification of individuals as a ranking can be examined in the light of responses to the first set of questions on the questionnaire, and tentative hypotheses can be formulated and tested. For example, in the next stage of the project we will look for patterns in each town with respect to gender, age, employment, and length of residency.

#### ***4.43 Results and preliminary interpretations of the 2000 data.***

In Ixtapa, 28 people were interviewed (11 males and 17 females) with roughly an even number in each age group. Seventy eight percent owned their own home and the balance rented. This was a much higher percentage of renters than in the other two study sites, reflecting the different functional base of the town, and the larger amount of available rental accommodation. Under one third of the sample had been born in Ixtapa, although most of the rest came from other parts of Jalisco. Some had, however, moved from greater distances, such as Durango, Acapulco, and Mexico City. These in-migrants had been entering Ixtapa over a fairly long time period, although the majority had moved over the last decade. Most of the respondents worked in traditional village roles such as commerce and construction, and there was little evidence of a tourist impact upon job types. But this almost certainly reflected our sampling process, which involved interviewing during daytime hours when workers employed outside of Ixtapa were absent. However, our February 2000 survey of workers in the tourist industry indicated that many lived in Ixtapa, commuting to the coast for employment in hotels and related activities (Everitt et al., 2000). In fact at least one hotel company operates a bus to transport its workers from Ixtapa its hotels.

In Las Palmas, 23 people were interviewed, (7 males and 16 females) there were an even number in each age group. Eighty seven percent owned their home (a characteristic of most such settlements in Mexico) and two borrowed dwellings from friends (a typical behaviour pattern). Over 60% of the respondents had been born in Las Palmas, with most of the rest coming from other parts of Jalisco in general, and several moving in from smaller settlements around Las Palmas. Once again, all of the respondents worked in traditional village roles such as commerce and construction, and there was little other evidence of a direct tourist impact upon most peoples'

lifestyles.

In El Tuito, 24 people were interviewed, (11 males and 13 females) with an even number in each age group. Over 80% owned their home. Two respondents rented, and two borrowed dwellings from a friend. Just under half of the respondents had been born in El Tuito, with most of the rest coming from other parts of Jalisco in general, and the hinterland of El Tuito in particular. All of the respondents worked in traditional village roles such as commerce and construction. Although a few of the shopkeepers catered in part to tourists, there was little other evidence of a major tourist impact upon most peoples' lifestyles. Quality of life scores were determined for 15 indicators. Individual QOL scores were then calculated for each respondent. These data suggested that men believe that they have a better QOL than women, and that the women also believe this. There was no evidence of age variations.

As indicated above, the respondents were asked to score fifteen quality of life indicators on a scale of one to five. These scores were then averaged and ranked for each settlement in order to gauge their importance to the people in each place. In each town 'family' was ranked as a most important indicator. In addition 'health', 'water', 'air', and 'peace and tranquility' were ranked as the other four most important indicators -- although the exact ranking varied from town to town. 'Work opportunities' were ranked quite highly (6<sup>th</sup> place) in Ixtapa, the "dormitory town".

There was also a large degree of consistency with respect to the least important factors. The 'cost of living' was cited by all three groups as a low-ranked indicator. 'Level of education' and 'work opportunities' were ranked in the bottom five in Las Palmas and El Tuito. 'Noise' was ranked in the bottom five for Ixtapa, and 'tourism' was not seen as very important for the QOL in Las Palmas and El Tuito - not surprisingly as it is not a significant activity, yet, in either settlement. Interestingly, however, tourism was only the eighth most important indicator in Ixtapa! 'Friends' and 'vacations' were ranked low in the exurb of Ixtapa, but higher in the other two more-traditional centres. Shopping and housing were not seen as important QOL factors in El Tuito, perhaps because its greater distance from Vallarta has insulated it in some way from the potential problems associated with these activities. Conversely shopping was not seen as a QOL problem in Ixtapa, perhaps because Puerto Vallarta is so close, and shopping opportunities so available!

The respondents were also asked to score their achievement with respect to each of the fifteen indicators, as a measure of the significance of these indicators to them. Similar rankings resulted to those of 'importance', with 'family', 'air', and an 'atmosphere of peace and tranquility' being perceived as receiving high levels of achievement by respondents of each town. Water was in the top five for Las Palmas and El Tuito, health in Ixtapa and El Tuito.

'Friends' were ranked high in Las Palmas and 'transportation' in Ixtapa. All three groups of respondents said that they were not very satisfied (i.e. achievement was low) with the 'cost of living'. 'Shopping' was ranked low by those in Ixtapa and El Tuito; the 'level of schooling' and 'work opportunities' were ranked low in El Tuito and Las Palmas. 'Housing' was ranked low in Las Palmas, 'tourism' in El Tuito, and 'noise', 'friends' and 'vacations' in Ixtapa. However, when these two scores (importance and achievement) are combined into an overall quality of life index, a number of observations can be made. A summary of the results is given on Table 8.

**Table 8: Summary of QOL scores for Ixtapa, Las Palmas, and El Tuito (2000 data)**

Place	Time Perspective		
	Before	Now	Future
Ixtapa	3.2	4.4	4.6
Las Palmas	-	3.2	-
El Tuito	2.1	4.0	4.6

First, on average, all the scores are high for each settlement, but highest for Ixtapa where economic development has had the greatest effect in the recent past, and lowest for Las Palmas, where development has had a lesser impact. The Ixtapa data indicate that QOL was lower in the past, has increased to the present, and is projected to increase into the future. Although some individuals had low scores, the average QOL scores were all quite high. Consequently when we talk about a lower quality of life in these towns it has to be seen in a relative sense. Some indicators were not seen as bad, so much as not as good as other ones. Thus in Ixtapa the QOL score for 'family' scored was 10 out of a possible 10, with 'health', 'transportation', 'air' and 'an atmosphere of peace and tranquility' being close behind. Although 'cost of living' (+4) and 'schooling' (+4) scored much lower, they still fell within the adequate category. Friends (0), vacations (+3), and shopping (+3) rank the lowest, but still have respectable QOL scores when viewed on the overall scale. In El Tuito, 'family' also scored a perfect ten, with 'health', 'friends', 'transportation', 'water', 'air', 'noise', and 'peace and tranquility' close behind. The lowest scores in this town (for 'cost of living', 'work opportunities', 'housing', 'tourism', 'shopping', 'vacations', and 'level of schooling' all scored +4. In Las Palmas scores were also relatively high. 'Family' again scored 10 out of 10, with 'health', 'transportation', 'air', and 'an atmosphere of peace and tranquility' following closely behind. All other indicators scored 4 or 5, except 'friends' that scored 0, as in Ixtapa.

In addition to measuring QOL at one point in time ('now'), the respondents were asked to try to rank what their satisfaction/achievement was with the fifteen indicators before tourism began in their community. The data here are more questionable as they rely on memory, and on the respondents having been around in pre-tourism times. But once again some illumination can be obtained from the results, particularly when they are combined with information gained from another question that asked respondents to project their patterns of satisfaction into the future. It is thus possible to get some indication of past, present, and future perceptions.

In El Tuito, 'family', 'water', 'air', 'atmosphere', and 'schooling' were seen as significant in the past. In the present, 'family', 'water', 'air', and 'atmosphere' have remained at the top of the list, but 'friends' have replaced 'schooling'. 'Vacations', 'shopping', 'tourism', 'work opportunities', and 'noise' were the least significant indicators before tourism. In the contemporary situation 'tourism', 'shopping', and 'work opportunities' are still ranked near the bottom, but have been joined by 'cost of living' and 'housing', as 'vacations' and 'noise' risen up the table of significance. It appears that an increase in tourism in the region has not given this indicator more significance in terms of QOL for people in El Tuito, but individual vacations have become more significant as a QOL indicator to our respondents.

In Ixtapa, the most significant indicators before tourism were 'family', 'air', 'atmosphere', 'water',

'health' and 'housing'. These can be seen as reflective of quite traditional values, as can those indicators ranked for the present. Currently the indicators with the highest ranks are 'family', 'air', 'atmosphere', 'water', and 'friends'. However, future projections suggest that 'family' and 'water' will remain significant, but that 'tourism', 'vacations', and 'air' will become more significant. These developments reflect quality of life changes that are clearly closely connected to urban growth and a change in lifestyles that is connected to the increased impact of tourism on this fast-growing settlement.

For Ixtapans, the indicators with least significance in the past were 'shopping', 'friends', 'transportation', 'cost of living', and 'work opportunities'. Currently the lowest ranked indicators are similar: 'shopping and vacations' (tied ranks), 'work opportunities', 'transportation', 'schooling', and 'cost of living'. In the future they project that the least significant indicators will be 'friends', 'shopping', 'schooling', 'cost of living', and an 'atmosphere of peace and tranquility'.

Without having data on a complete time budget for each individual, it is difficult to fully interpret these data, as clearly there must be some activity losses to offset the increases in time spent on those indicated. One reasonable interpretation is, however, that more time and effort is likely to be spent on major participant activities in general, and that these increases are seen as positive both in terms of (medical) health and in terms of life satisfaction. As all three towns are being subjected to similar stresses as a result of the changes resulting from tourism and other lifestyle alterations, it is not surprising that there were similar responses to some of these questions. It is interesting that despite the importance attributed to family in earlier questions, that there was a recognition that changes in time budgets are likely to come, and that family interactions may suffer as a result. There was also an acknowledgement that this loss, when combined with the other changes suggested, will still lead to an overall increase in the quality of life.

#### ***4.44 Comments on data collected for 2003.***

The focus of the data collection exercise in 2003 was on El Tuito, Tomatlán and Puerto Vallarta. We specifically selected particular groups of individuals to provide us with their perceptions of the factors that influence QOL. For example, in the case of Puerto Vallarta we were able to obtain a set of 25 responses from employees at the City Hall. In the case of Tomatlán we were only able to interview a very small set of 6 employees at a specific hotel in the town. Arturo Morales, a council member in Tomatlán also provided assistance in gathering background information. For El Tuito we focused on the responses of 12 employees at the city hall. Maribel Vargas Licea, the Vice President of the town and the new municipal President Mstro Macedonio León Rodríguez Avalos collected the data for El Tuito for us.

In Table 9 we present a summary of the average scores for each of the 15 indicators for Puerto Vallarta, El Tuito and Tomatlán using the 2003 data. This table can be compared to Table 6 that refers to the 2000 data set. For the 2003 data set it is clear that for those interviewed in PV, El Tuito and Tomatlán the most important indicators relating to QOL are 'health', 'family', 'water', 'air', 'peace and tranquility' and 'education'. The least important indicators are 'noise', 'shopping' and 'holidays'. A summary set of rankings of the importance of the 15 indicators for both sets of data is shown on Table 10 and there appears to be considerable consistency among

the rankings. Table 11 offers a summary of the overall QOL scores for Ixtapa, Las Palmas, El Tuito, Tomatlán and Puerto Vallarta using the 2000 and 2003 data.

**Table 9: Average importance scores: Puerto Vallarta, El Tuito, and Tomatlán (2003 data)**

<b>Indicators</b>	<b>Puerto Vallarta</b>	<b>El Tuito</b>	<b>Tomatlán</b>
F1 Health	4.9	4.8	5
F2 Cost of Living	4.5	4.1	4.5
F3 Work Opportunities	4.6	4.5	4.8
F4 Housing	4.8	4.6	4.7
F5 Family	4.7	5	5
F6 Friends	4	4.1	3.9
F7 Tourism	4.2	4.1	4.4
F8 Shopping	3.9	3.3	3.6
F9 Transportation	4.3	4	4.5
F10 Holidays	4	3.5	3.7
F11 Water	4.9	5	5
F12 Air	4.7	5	5
F13 Noise	3.4	3.1	2.4
F14 Peace & Tranquility	4.7	4.8	4.8
F15 Education	4.8	4.8	5

**Table 10: Summary Ranking of Importance of Indicators**

Most Important	<b>Rank</b>	<b>2000</b>			<b>2003</b>		
		<b>Ix</b>	<b>E.T</b>	<b>L.P</b>	<b>E.T</b>	<b>Tom</b>	<b>P.V.</b>
	1	F1	F1	F1	F1	F5	F1
	2	F3	F5	F5	F5	F11	F11
	3	F5	F9	F6	F11	F12	F4
	4	F11	F11	F11	F12	F1	F15
	5	F12	F2	F12	F15	F14	F5
	6	F14	F4	F14	F3	F15	F12
	7	F2	F6	F2	F14	F4	F14
	8	F4	F7	F3	F4	F3	F3
	9	F6	F8	F4	F2	F2	F2
	10	F7	F10	F7	F9	F6	F9
	11	F9	F12	F8	F7	F7	F7
	12	F13	F13	F9	F6	F9	F6
	13	F15	F14	F10	F10	F10	F10
	14	F8	F15	F13	F8	F8	F8
Least important	15	F11	F3	F15	F13	F13	F13

**Table 11: QOL: summary results**

<b>Tomatlán</b>	<b>2003</b>		<b>Hotel workers</b>		
	Now	2.2	Very acceptable (low end)		
	Past	1.8	Problematic		
	Future	3.7	Very acceptable		
<b>Puerto Vallarta</b>	<b>2003</b>		<b>City Hall</b>		
	Now	2.9	Very acceptable		
	Past	3.3	Very acceptable		
	Future	4.7	Excellent		
<b>Ixtapa</b>	<b>2000</b>		<b>Citizens</b>		
	Now	4.4	Very acceptable (high end)		
	Past	3.2	Very acceptable		
	Future	4.6	Excellent		
<b>El Tuito</b>	<b>2000</b>	<b>Citizen</b>	<b>2003</b>	<b>City Hall</b>	
	Now	4.0	Very acceptable	3.2	Very acceptable
	Past	2.1	Very acceptable	0.9	Adequate
	Future	4.6	Acceptable	4.0	Very acceptable
<b>Las Palmas</b>	<b>2000</b>		<b>Citizens</b>		
	Now	3.2	Very acceptable		
	Past	-			
	Future	-			

In the case of Tomatlán on the basis of a very small set of interviews with hotel employees the current status of QOL is at the low end of ‘very acceptable’ - see Table 7 for the interpretation of the QOL scores. In the past the QOL was seen as ‘problematic’ and expectations for the future are that QOL will become ‘very acceptable’. Tourism is clearly expected to contribute to this improvement in a significant fashion according to the informal discussion we held with the interviewees. For Puerto Vallarta while the past and present are both ‘very acceptable’ in terms of QOL there has been a decline in the numerical score from 3.3 to 2.9, thus perhaps implying that even with the growth of tourism in this city there have been some negative, albeit small, consequences. This was the general impression we garnered from informal discussions we held with employees at the city hall. Expectations for the QOL in the future are very high indeed and an ‘excellent’ rating is envisaged. For El Tuito using the 2000 data and opinions of citizens chosen at random we observe a ‘very acceptable’ level for the present and an ‘excellent’ score is expected for the future; the past achieved a ‘very acceptable’ level even though it tended toward the low end of the scale for this category. However, using the 2003 data derived from the interviews with employees of the city hall the QOL scores are less impressive. The present score is ‘very acceptable’ but lower than that for the citizens group in 2000. According to the

employees the QOL in the past was barely 'adequate', this is significantly lower than for the group interviewed in 2000. The prospects for the future are to achieve a 'very acceptable' level for QOL and this is consistent among those interviewed in 2000 and 2003. The 2000 data for Ixtapa are very encouraging in terms of QOL scores, and we only have one result for Las Palmas that indicates the current situation is 'very acceptable'.

Overall there is considerable consistency among the trends shown in the scores with respect to expectations for the future, namely that levels for QOL will increase in all cases. Clearly there are expectations that a growth in carefully managed tourism is likely to yield positive effects. This bald assertion deserves to be examined much more closely through more detailed surveys and larger samples of interviews, also paying close attention to the views of specific sub samples, for example, seniors, young people, families, and officials and professional such as health care workers in each rural place. This work could form the basis of future studies in this co-operative project.

#### ***4.45 The relationship between QOL and tourism***

It is clear from the literature that there is a close relationship between tourism, community and economic development, and the quality of life, and our field research has reinforced the importance of this association. Tourism undoubtedly leads to economic, social and environmental changes in an area, and this change can be seen in both positive and negative lights - each of which illuminates the concept of the quality of life in different ways.

On the positive side, tourism can lead to an increase in job opportunities in an area. Although these might not all be of a universally desirable nature they can lead to improvements in other services, including medical, educational, and recreational. If these changes take place in the context that is envisioned by the Mexican government, it is likely that negative spin offs of tourism can be kept to a minimum. However, there will still be changes that are going to be seen as negative by some segments of the population. For instance, both El Tuito and Las Palmas are prized by their inhabitants for their "peace and tranquility" that, ironically, are a result of their under-capitalisation and rural remoteness – a correlation also characteristic of "lagging regions" in Europe (Cawley et al., 2003). Although a positive social environment can be maintained when tourism increases, it is likely that the present situation will change for these towns and their inhabitants. In addition a number of our informants suggested that other negative effects, such as environmental deterioration, and drug use amongst youth which can be seen to be increasing, and which are directly related to tourism and other outside influences. While we generally support the use of formal methods to calculate QOL scores we add the caveat that they be used with caution in the development of policies to ameliorate conditions for citizens.

#### ***4.46 The role of the local citizens.***

Our research has demonstrated that tourism is having an impact, not only on the mass tourism destination of Puerto Vallarta (and its associated developments) but also upon the surrounding rural areas that are now being brought into the tourist industry. It has also become clear to us that this impact is going to increase, perhaps exponentially, in the foreseeable future. Traditionally, tourism was promoted and/or controlled by private business and corporate interests, and by

“planners as experts”. They determined the supply and location of services, essentially defined consumer choice, manipulated travel patterns, and provided jobs for local citizens. They also made all of the decisions for the local environment and the local populous, usually based upon their training and their perceptions of what would be good and bad, right and wrong.

In the contemporary world there is, however, an increasing pressure to involve the local people in decision making, to understand community attitudes towards tourism, to allow the local citizens to decide upon the type and amount of tourism that is to be supplied, and to have a greater say in supplying it. In theory the role of the local citizens can then be to say what their perceptions of tourism are, and what they would like to see and not see and this would affect the way the environment is valued and treated. It would involve the fostering of community input and perhaps control, or at least the development of partnerships with other stakeholders, allowing for the recognition of the social impacts of tourism as well as the economic ones. It should also enable planning of a variety of types of tourism that meet local needs as well as work within the competitive (and often global) marketplace. Our research has demonstrated that the local people do have concerns, that these can be articulated, and it is our belief that they should be integrated into the tourism development process. These thoughts will be returned to in section 5.0.

#### **4.5 Summary Remarks**

Multi-criteria analysis can be used to tackle the QOL classification problem but it is clear that if the results are to be used to help improve the QOL of people or places then it is necessary to ensure that the analysis be incorporated into a planning process which empowers all stakeholders to be actively involved in the data collection, analysis and interpretation of the results. The empirical studies on QOL stress these principles to help ensure that studies of QOL will be incorporated into the life of a state and not sit in reports gathering dust!

### **5.0 Planning Issues and Recommendations**

Planning for tourism in Puerto Vallarta has traditionally been focused upon urban-oriented variables such as land-use zoning, building regulations, and infrastructure provision, but regional planning for varieties of “hyphenated-tourism” such as rural tourism, wilderness tourism, ecotourism, nature-base tourism and adventure tourism will require different approaches. This reflects the adaptation and expansion of tourism elsewhere in the world, since around 1985, to include a broader set of socio-cultural and environmental concerns, and the need to include tourism as a development strategy in rural as well as urban areas. Once again we are seeing neo-local responses to global forces and influences (Hall and Page, 1999).

The diverse nature of this new tourism has meant that the industry has become even more difficult to grasp for planners and policy makers, yet paradoxically it has meant that planning has become all the more critical for this industry – especially when it is being viewed as an engine for rural and small town economic and social development.

This is not the venue to go into great detail with respect to planning, in part because this is part of our ongoing research (see 6.0) and is at present poorly developed in the Puerto Vallarta

region. It is worthwhile, however, to briefly outline five interrelated tourism-planning traditions or approaches (Hall and Page, 1999: 250-251), and see how these can be applied to the contemporary situation. These five are the “Boosterism” tradition, the “Economic” tradition, the “Physical/spatial” tradition, the “Community” tradition, and the “Sustainable” tradition. The first four are more established approaches. The fifth is the most recent.

Boosterism has clearly been a characteristic of tourism in Puerto Vallarta since at least “The Night of the Iguana”, and is reflected in the development of the “Hotel Strip” north of Puerto Vallarta, the condominium developments to the south, and the recent changes in the CBD that have made Vallarta less traditional in its cultural landscape and more “North American Popular” with Hooters, McDonald’s and Burger King becoming characteristic enterprises, often at the expense of traditional businesses and social groups. This approach is a simplistic attitude that sees tourism as inherently positive and is characterized by a strong business/corporate input. It has traditionally been weak with respect to overcoming “obstacles” to growth, such as those associated with environmental degradation as these often require a more integrated approach involving partnerships between different jurisdictions (local, regional and national), and the incorporation of both public and private groups.

The economic approach views tourism more directly as a development tool designed to create employment, earn foreign revenue and promote regional development. Although clearly related to boosterism, this tradition has usually focused on planning rather than market forces. The problems commonly associated with this approach have revolved around the difficulty of reconciling the economic benefits with the social and environmental costs that may accrue. For instance the development of Marina Vallarta has had positive economic impacts, but arguably at the expense of the environment. Planners in Puerto Vallarta are currently trying to reconcile these difficulties, in part by “retrofitting” the urban environment in order to provide a greater range of social and environment options.

The physical/spatial approach is more ecologically oriented and is concerned with the preservation of genetic diversity, environmental conservation, and the promotion of an ecological basis for development. Although the recent rapid development of Puerto Vallarta has meant that this approach has perhaps already been largely preempted by preexisting development, it can be seen as a critical element in the development of the more rural areas around Vallarta, and it has been recognised as an important thrust by a number of the smaller towns, including several included in our field studies. The difficulties of this approach are related to the lack of available data on the environment, and thus the carrying capacity of the region. In addition tourism in these non-urban areas will clearly impact the local populations, and the quality of life. It is here that we see extensions of our research being of particular value. In this sense our data can be seen as baseline information which can help the regions planners understand what aspects of their lifestyles the local populations wish to preserve, and what they are willing to see changed in order to gain increased economic development and opportunities for the future.

The community tradition emphasizes the social and political contexts within which tourism takes place. It has always recognised the need for local control – for “bottom-up” planning. It has searched for alternatives to mass tourism and has seen the planner as a facilitator rather than an

outside expert who will direct change. We hope that our research will aid this approach by fostering community control and helping the small towns understand the community attitudes towards QOL and tourism.

The sustainable tradition is quite new, and reflects a concern that is becoming widespread throughout the world. It views tourism as part of an integrated holistic approach that can preserve the essential ecological processes, but at the same time improve (“develop”) the situation of the local people. This approach demands an understanding of local political processes, the local marketplace, the private and public sectors involved in tourism, and the an understanding of the regional tourist system. Although we hope that our research will help advance this tradition by providing data that will enable the setting of goals, objectives, and priorities with respect to the quality of peoples’ lives, we do not pretend to have yet advanced very far down this particular research pathway. Considerably more time and research will need to be dedicated in this area.

We stated earlier that contemporary tourism is much more diverse than tourist practices in the past, and that a greater understanding of this diversity will be needed in order to synthesise and develop the tourist potential of Jalisco. That is to say there is a need for greater consumer awareness and greater producer awareness. We recognize that this is underway in the urban areas of Vallarta, and that in fact quite detailed strategic plans are being prepared for the city of Puerto Vallarta and its immediately adjacent areas. It is less certain that these principles are being extended into the rural areas where tourism is already having an impact. It is hoped that a more integrated regional approach will be possible before it is too late.

## **6.0 Future Research Projects**

One of the characteristics of good research is that it is never complete – it always leads onto to further research questions. We will finish our paper with some suggestions for future research in our study area, with the hope that others may “pick up the baton” if we are unable to carry it to the finish line.

- Study the ways that the L.E.A.D.E.R. programme could be applied in rural areas in Mexico
- Set up data collection on QOL in a variety of locations so that long-term studies to monitor changes could be undertaken
- Examine the local decision making systems to determine the roles for local community action, local government, civil society and the actions of central government and regional governments to promote rural change and sustainability
- Develop operational definitions of rural sustainability for the local conditions in rural communities in Mexico
- Assist where possible the development of planning proposals for rural development in the “Greater Vallarta” region within Jalisco state and perhaps the adjacent areas of Nayarit state

- Prepare working papers in Spanish

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## **8.0 Endnotes**

<sup>1</sup> Banderas Bay was first explored in the early 1500's by Francisco Hernández de Sanbuenaventura, a nephew of the famous Conquistador Hernan Cortez. He named the bay because he was received by 20,000 Indians bearing feather flags. "Banderas" is the Spanish word for "flags". The town itself, which was founded in 1851, is situated in the southern part of Banderas Valley, facing west over the bay with the same name. The town was named after Ignacio L. Vallarta in 1918 and declared an official city on May 31st, 1968 (<http://www.pvconnect.com/map.html>).

<sup>2</sup> Among other things, it has given to Mexico its traditional costume, that of the charro; its national beverage, Tequila; and its most representative music, that of the Mariachi (<http://www.puerto-vallarta.com>).

<sup>3</sup> Over the past 30 years PRB data indicate that the population of Mexico has grown by 87% while the world's population has risen by 64%. By comparison Canada's population has increased by 40%. Over the same time period the average world PCGNP has risen by 660% whereas that of Mexico has risen by 1130% and that of Canada by 617%.