Ilo: a city in transformation

By
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Reprinted from Environment and Urbanization 11(2) October 1999
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SUMMARY: This paper describes the progress made in the city of Ilo over the last 15 years and discusses the reasons for its success. Progress includes the much improved provision for water, sanitation and electricity, and the tree-planting and street-paving programmes. It also includes a municipal programme that has ensured that land is available for housing that even low-income households can afford, and that has avoided problems of illegal settlements – despite the city’s rapid population growth. It also describes some of the public works – for instance, the pier and sea walkway, and the parks – and how some 300 projects were financed and executed through partnerships between municipal government and community-level management committees. However, the paper’s intention is to go beyond the description of achievements, to a consideration of the processes that underlie them. Drawing on the author’s dialogue with the current mayor of Ilo, the paper discusses how the combination of local factors, a broader national and international context and local leadership has helped form the basis for these achievements. It highlights the importance of a mode of government that helps encourage trust, that meets its commitments and that respects agreements developed with the inhabitants.

I. INTRODUCTION

ILO IS A port city in southern Peru, more than 1,000 kilometres south of the coastal capital Lima and close to the Bolivian and Chilean borders. It has a population of 60,000 – a six-fold increase since 1961. It has managed to achieve a well-ordered, efficient urban management over the last 15 years which makes it unusual among Peru’s smaller cities. This paper updates and expands on the paper the author wrote with Doris Balvín Díaz and Michaela Hordijk in the April 1996 issue of Environment and Urbanization. The author, who has been directly involved in Ilo’s management, describes what has been done, identifies the main actors and considers the relevance of Ilo’s experience for other cities. There is particular interest in drawing out the factors that help explain the relative success in Ilo. The paper also includes extracts from the author’s discussions with one of the principal actors in this experience, Ernesto Herrera, the present mayor of Ilo.

II. THE DEVELOPMENT OF ILO

a. Community Management Committees

ONE OF THE most important features in Ilo’s development over the last
15 years has been the community management committees set up by residents, who have joined forces to carry out projects that directly benefit the community, such as paving streets, developing parks and installing water and electricity systems. Table 1 summarizes the improvements made by these committees.

<table>
<thead>
<tr>
<th>Management committee accomplishments</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Streets paved</td>
<td>160</td>
</tr>
<tr>
<td>Green areas created</td>
<td>8 hectares</td>
</tr>
<tr>
<td>Trees planted</td>
<td>8,000</td>
</tr>
<tr>
<td>Houses painted and fenced</td>
<td>5,200</td>
</tr>
<tr>
<td>Communal education and other facilities constructed</td>
<td>18</td>
</tr>
<tr>
<td>Water and sanitation works</td>
<td>12</td>
</tr>
</tbody>
</table>

Management committees are established at meetings of organizing or neighbourhood committees and, once formed, they ask for formal recognition from the municipal government, acknowledged through a municipal resolution. Their aim is the joint management and financing of projects which are developed and implemented with other institutions, including an active role for the municipal government, the federation of settlements and the NGO Labor – see table 2.

<table>
<thead>
<tr>
<th>Management committee</th>
<th>Municipality</th>
<th>Federation of squatter settlements</th>
<th>The NGO Labor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unskilled labour</td>
<td>Project design</td>
<td>Land</td>
<td>Environmental education</td>
</tr>
<tr>
<td>(task or day payment)</td>
<td>Execution of works</td>
<td>Trees</td>
<td>Assistance in organization</td>
</tr>
<tr>
<td>Community organization</td>
<td>Technical assistance</td>
<td>Promotion of the organization</td>
<td>Assistance in reforestation techniques</td>
</tr>
<tr>
<td>Project monitoring</td>
<td>Skilled labour</td>
<td>Technical supervision of tree-planting</td>
<td>Concrete fund</td>
</tr>
<tr>
<td>and maintenance</td>
<td>Machinery and equipment</td>
<td></td>
<td>Training</td>
</tr>
<tr>
<td>Concrete</td>
<td>Ordinance on devolution of payment for improvements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Between 1990 and 1998, approximately 300 of these committees were created, each responsible for a project, with a total investment of about US$ 10 million. Residents serving on the management committees have found various ways of funding and executing the projects, including direct contributions from residents, group fund-raising activities such as raffles and food sales, and support from municipal government. They can also
draw on materials provided on credit by the NGO Labor and other institutions such as the Banco de Materiales (the Materials Bank), and sometimes find additional support from grants or donations.

**b. Water, Sanitation, Solid Waste and Energy**

Ilo has guaranteed adequate provision for its water and electricity needs for the next 25 years. Its location in an arid, rocky desert area has meant that water has always been in short supply. Within six months, the city will obtain 240 litres per second from the Locumba river basin, 90 kilometres away, 250 litres per second from its own Osmore river basin which, after being dry for many years, has now been stabilized in connection with the Pasto Grande project, and 80 litres per second from wells that have been re-opened in the small Ilo valley (an area of 400 hectares). Ilo’s present requirement is only 250 litres per second and the surplus will, of course, be effectively managed.

Ilo’s energy outlook is similar. Present and future power supply comes from a number of different sources – the Aricota and Charcani hydroelectric plants, thermoelectric sources including a planned coal and gas plant, and an existing five megawatt thermal power station as a backup supply. As an industrial city, Ilo has a relatively high consumption of electricity – nearly twice that of Arequipa (with 1 million inhabitants). Its energy supply is assured because of the presence of the copper industry and the strategic role of its port.

Ninety-five per cent of Ilo’s waste water, equivalent to 240 litres per second, is treated in a waste water treatment pond and two small recycling modules known as bio-filters. Twenty-five tonnes per day of solid waste are collected and disposed of in a sanitary landfill run by a micro-enterprise. Surveys indicate that public opinion deems Ilo to be a clean city.

**c. Housing and Urban Expansion Plans and Programmes**

Despite the city’s rapid population growth in recent years, there have been no land invasions or illegal land occupations by low-income groups seeking land for housing. Official provision of land for housing has managed to meet the requirements of low-income households. All new settlements have been developed within municipal and housing association programmes, in which housing lots are gradually serviced while they are also undergoing legal and physical reorganization. This is a process that is jointly managed and self-financed by the communities involved. Through these efforts, 6,000 lots have been serviced for housing purposes in the urban expansion area known as Pampa Inalámbrica.

The city of Ilo is situated on a sloping coastal fringe, with an average width of two kilometres. Urban occupation has gradually taken over the seaside areas, alongside industrial uses. To accommodate demographic growth, higher ground (500 metres above sea level) was designated in the 1984 urban development master plan as an urban expansion area, owing to its flat surface and capacity to house more than 60,000 residents. The municipality sub-divided the urban land into lots earmarked for three different groups: private housing associations; government housing programmes (ENACE and FONAVI); and the municipal housing programme run by the provincial municipality of Ilo. This advance acquisition and sub-division made it possible to meet housing demand for
different sectors of the population, and enabled the municipality to establish various procedures that allowed a range of lots to be developed that were within the purchasing power of different social groups.

The lowest-income households acquire their lots within the municipal housing programme’s three-step process:

• The municipality receives applications, assesses them jointly with residents leaders (to verify social need and rule out those who already own a house or site) and selects eligible candidates. The eligible candidates are then ranked, a process that includes rating their participation as local residents, and land sites are allocated. This initial period is the “gradual urban servicing period” with residents helping to clear and prepare the site and undertake the survey. Streets and lots are laid out, the site plan made with different areas given their designated use and public water taps and septic tanks constructed, with active support from the municipal drinking water and sanitation company. This stage ends when the selected households occupy their lots.

• The programme checks to ensure that the social organizations and the beneficiary population meet the following parameters: occupation of the lot by the beneficiary family; the preparation of plans for electrification, water and sanitation; a level of road-grading; and participation of the local assemblies in tree-planting schemes, street-grading and marking, earthworks and construction of community and/or individual latrines. This stage ends with the execution of the adjudication documents.

• The social organization is required to begin the servicing of the lots, as planned in the previous phase. Beneficiaries must complete at least one basic service during this step and, as a minimum, financing must be approved for the other services. This step ends with the delivery to each lot occupant of the definitive title to the property. Beneficiaries themselves pay the costs of this urban servicing process and of the assigned lots, to an amount not exceeding the equivalent of US$ 60.

The work is jointly managed and self-financed. Through the various management committees, the beneficiary population coordinates support from a number of public and private institutions such as NGOs, private enterprises and national programmes set up to address extreme poverty. The servicing process takes from one to three years – the speed dependent on the beneficiary population’s management capacity. Similar strategies support self-help house construction.

Thus, through a creative and sustained policy on finance, credit and community service, people who have very low incomes now own their own lots and have their own houses, made from proper materials, through mutual assistance and cooperation,

d. The City Reconciles its Connection to the Sea

Over the last 15 years, there has been a long-term programme to recover the seafront for use by the population. More than ten enterprises and settlements, established there over the decades, have been relocated (see Table 3) to allow the construction of the port pier, which has transformed three kilometres of the urban coastline, integrating city life with the sea and making it a space much used and enjoyed by the inhabitants.

At first glance, Ilo still has the appearance of a pueblo joven – a term commonly used in Peru for illegal or informal urban settlements. It will take a few generations to transform the rocks and sand into green areas. However, along the steep, grey rocky land that characterizes the city’s
urban surface, different community organizations have built plazas and stairways, and planted shade trees and plants that do not require fertile soil or much water. Urban buildings in this area have reoriented their frontage towards the coast. The pier begins with the century-old customs wharf (muelle fiscal) next to the square, its columns embedded in rocks. Tree-lined walkways lead to an open-air amphitheatre which can accommodate 3,000 people. Garden paths adjoining the plaza lead to a seaside playground complex. To the north, a paved road leads to Boca del Río beach, with space designated for high-density housing, administrative buildings (such as the city hall), and cultural and tourism buildings.

### Table 3 Areas Relocated in Connection with the Port Pier

<table>
<thead>
<tr>
<th>Housing or facilities relocated</th>
<th>Area (m²)</th>
<th>Date</th>
<th>Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMARPE (Ocean Institute of Peru)</td>
<td>10,000 400 constructed</td>
<td>September 1994</td>
<td>Own funds, Built another facility, Donated pre-fabricated building to the university</td>
</tr>
<tr>
<td>Brickmakers</td>
<td>2,000</td>
<td>September 1994</td>
<td>Relocation order, informal employment</td>
</tr>
<tr>
<td>Customs Office of Peru</td>
<td>400 Prefabricated building</td>
<td>November 1993</td>
<td>Vacant premises donated by customs, New premises</td>
</tr>
<tr>
<td>National police</td>
<td>800 Pre-fabricated building, staff sleeping quarters</td>
<td>January 1994</td>
<td>MPI reciprocally donated land in Pampa Inalámbrica, MPI installed pre-fabricated building</td>
</tr>
<tr>
<td>Households, calle Comercio</td>
<td>200 Public area, incorporated into Pier</td>
<td>January 1994</td>
<td>Order to vacate</td>
</tr>
<tr>
<td>60 residents, La Picuda human settlement</td>
<td>4,000</td>
<td>May 1994</td>
<td>MPI donated land in Pampa Inalámbrica</td>
</tr>
<tr>
<td>Refurbishment of boats, informal shipyard</td>
<td>2,000</td>
<td>October 1994</td>
<td>Relocation order, informal occupation</td>
</tr>
<tr>
<td>Mechanical shop, MPI</td>
<td>800</td>
<td>January 1995</td>
<td>Construction of other facilities</td>
</tr>
<tr>
<td>Municipal abattoir</td>
<td>2,400</td>
<td>May 1995</td>
<td>Construction of other premises</td>
</tr>
<tr>
<td>Former peña blanca (brothel)</td>
<td>4,800</td>
<td>First half of 1995</td>
<td>Relocation order</td>
</tr>
<tr>
<td>Mechanical shop, MPI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub-total</td>
<td>27,400 square metres</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

e. Integration into the Road System

A unique and attractive feature of Ilo is the coastal highway to Tacna, part
of the international and regional road connection that the city has developed. La Paz, Bolivia can now be reached by paved road in five hours and there are plans to extend the Tacna road up the coast to Mollendo and Camaná, and onto Lima within the next four years.

Since the 1992 signing of the agreement between Peru and Bolivia, Ilo has played a strategic role as the headquarters for Latin American integration with the Pacific Basin. This agreement has allowed Bolivia (a land-locked country) access to beaches, the port and the shore. The long-term goal is that of bi-oceanic integration – in other words, turning Ilo into a major port serving the exports of Brazil and Argentina from the Atlantic coast to the Pacific coast. During the past five years, investments have been made in highways, water projects, an airport and industrial infrastructure. To date, this integration is still theoretical: no plane has landed in the newly designed airport and no Bolivian has been seen on the beach designated as “Boliviamar”. But the projects are under way and should eventually achieve success.

f. Development and Environmental Conflict with Empresa Southern

Empresa Southern (Southern Peru Copper Corporation), Peru’s largest copper company, established mining and metallurgical facilities in Ilo some 40 years ago. The city’s dependence on this industry, together with its five fishmeal and processing industries, ensures that it still qualifies as an enclave economy. Only a small fraction of the US$ 800 million that these enterprises generate in exports each year remains in Ilo in the form of capital and there is little processing within Ilo of the raw materials extracted. But 30 years ago, Ilo was a crowded mining camp and fishing settlement; over the past decades it has became a city and, through great effort, a livable city.

Ironically, for a city with good environmental management, environmental contamination is still very serious because of the 1,800 tonnes of sulphur dioxide emitted each day by Empresa Southern’s four smoke stacks. Five sulphur dioxide sampling stations were set up in 1997 and showed an air pollution level in the settlement of Ciudad Jardín of 687 milligrammes per cubic metre, 14 times the limit suggested by the World Health Organization (WHO). Even in the more distant Pampa Inalámbrica, the concentration is more than three times the WHO permitted standard. An analysis of hospital records shows that a much higher proportion of in-patients come for treatment of respiratory ailments than is normally the case in Peru. Between 1961 and 1977, in Southern’s general hospital, a weighted average of 67 per cent of treatments were for bronchial, respiratory and allergic conditions each year. In Ilo general hospital, 31 per cent of treatments are for respiratory conditions when the national average is less than 20 per cent.

For many years, Ilo was considered a place where money could be made from mining and fishing jobs but not a city to live in. Many families moved away because their children were suffering from asthma. Others invested their earnings in businesses or housing in other cities, to “get away some day” from this contaminated city. It is estimated that about US$ 12-15 million flows out of the city each year, for this reason.

The World Health Organization considers Ilo to be one of the most polluted areas in Peru and city leaders have long feared that this would deter external investment and frighten tourists away. While urban envi-

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2. See reference 1 for more details.

3. WHO sets the maximum permitted concentration at 50 milligrammes per cubic metre – see Kamst, Alex (1998), Indicative Air Quality Measurement, Ilo, Peru.

Environmental management has been unable to solve this problem of atmospheric contamination, Southern has been persuaded to invest US$ 200 million in other environmental projects such as the re-washing facility that ended pollution in Ite Bay and the civil works to prevent slag from destroying the beaches in the northern part of the city.

By law, air pollution must be reduced to permissible levels by 2006. Southern indicated that it planned to collect the sulphur dioxide formerly discharged into the air and make sulphuric acid until emissions were reduced to 5 per cent of current levels. When copper prices fell as a result of the Asian crisis, however, the company lost its initial conviction. But Ilo’s inhabitants will continue to fight to ensure they can breathe clean air in the next millennium. Although the main problem remains to be solved, the unifying and creative impulse of joint environmental action has been indirectly responsible for many of the city’s accomplishments.

g. Intangible Results

It is easier to describe the tangible achievements than the organizational and institutional structures that allowed these to take place. This section maps out the less tangible underpinnings of the achievements summarized above. An international cooperation worker concluded after a visit to the neighbourhoods in Ilo that conciertamiento was to be found in the attitude of the people themselves — a mentality deeply rooted in the collective subconscious. Ilo residents are proud of their city and believe that they have helped to transform it with their own hands. They also know that when Iloans join forces and set a goal, they accomplish it, a reason for the material achievements that we have described.

Iloans do not have the fatalistic attitude that is common among the Andeans, but are more optimistic and communicative, although they still maintain Andean community traditions that are strengthened by joint labour activities. In a survey conducted throughout Ilo, 67 per cent of the people indicated that they had participated in a management committee and 90 per cent said that they had taken part or were participants in some form of social, union or cultural organization.

The 300 management committees that have been formed in Ilo’s popular sectors as well as in the middle-class sectors are evidence of this tendency. Neighbourhood communal councils and federations, along with the survival network that includes vaso de leche (glass of milk) committees, popular kitchens and, more recently, local assemblies are responsible for supervising city maintenance and services. Enterprises and institutions have adopted these committees as a model for cooperation. However, the existence of an extensive network of grassroots organizations is no guarantee that such changes as we have described can succeed. There are extensive networks of grassroots organizations in other cities that have not managed to address their environmental problems.

Channelling the energy and styles of the city’s inhabitants in the appropriate direction might not have been possible without institutional involvement in the city’s development. Many government, non-government and civic organizations have been created in Ilo and have played (and continue to play) a vital role in the functioning of this city. Ilo is also distinguished by its impressive institutional continuity. The municipality has had the same management team for six consecutive elected terms of office. Governing a city for 18 years with the same orientation, re-creating itself every year and consolidating the changes that have been made is

5. Concertación is more than just “consultation” or “coordination” as it implies not only the involvement of all stakeholders in discussions but also the achievement of an agreement acceptable to all stakeholders. See López Follegatti, José Luis, Walter Melgar Paz and Doris Balvin Díaz (1995), La concertación en la gestión ambiental urbana: la experiencia de Ilo, Ilo, Peru, November; also Miranda, Liliana and Michaela Hordijk (1998), “Let us build cities for life: the national campaign of Local Agenda 21s in Peru”, Environment and Urbanization Vol.10, No.2, October, pages 69-102.
unprecedented among new democracies such as Peru’s. This type of institution-building, with a consistent constitutional state and legal system, is more typical of older societies such as those in Europe. Latin American societies are characterized more by political instability and inconsistency – perhaps more interesting, but less efficient.

This continuity and stability has also enabled other institutions in Ilo to provide strong support for the municipal administration. Two long-established NGOs – CEOP-ILO (in existence for 21 years) and Labor (for 18 years) – have both consistently been involved in Ilo’s development, in particular with the popular sectors. Political leaders in other cities have attributed Ilo’s success solely to the presence of NGOs supporting the municipal government and have established similar organizations in their own areas, failing to realize that the problem is not one of organizations but of groups of leaders to guide them. Ilo’s institutional stability has much to do with leadership and its role in guiding a society.

Certain local radio stations have also helped to reinforce institutional stability by contributing daily broadcasts in support of Ilo’s identity. Technical groups and leaders from the labour movements, the former micro-region of Ilo and farmers are also among the groups that have contributed to this.

h. From Protest to Proposal – Ilo’s Planning

This institutional continuity is responsible for a range of city planning, one of the first obsessions of Julio Díaz Palacios, Ilo’s first mayor, during the 1980s. In this connection, he coined the slogan “from protest to proposal” that was embraced by all.

The land development plan and master plan, prepared by INADUR in 1983 and adjusted in 1988 to reflect the province’s accelerated growth, defined Ilo’s roles and the layout of its urban space. The plans encapsulated the dreams of a city and made provision for a variety of housing that could meet all types of demand. Most importantly, they modified the future urban expansion area, Pampa Inalámbrica, where new housing could develop, and identified areas for the development of industry, tourism and seaside resorts. Allowable density classifications were established for the various urban areas and a street layout was adopted. The plans were drawn up in a consultation process, with the active participation of representatives from all institutions.

Ilo’s environmental rehabilitation plan reflected the recommendations of the Multi-sectoral Commission on the Environment that had been established by the government in 1987 to address the problems of industrial and urban pollution. This Commission’s conclusions and recommendations were agreed to by the Southern Peru Copper Corporation.

Ilo’s comprehensive development plan was approved in 1992 and was designed as an extension of ongoing programme development and as a forum for struggle, embracing regional issues. Topics such as decentralization, the mining tax, the Pasto Grande project, bi-oceanic integration and the free-trade area were organized in this widely discussed document.

Approved in 1993, Ilo’s environmental plan became an instrument of consultation among the institutions and served as a basis for the execution of a group of projects aimed at improving Ilo’s environmental conditions.

The tourism development plan, prepared in 1996, defines Ilo’s role as part of the coastal axis that includes Tacna, Mollendo and Camaná. It aims
to make Ilo an attractive seaside resort area for Peru and for other coun-
tries interested in bi-oceanic integration.

Of course, Ilo’s urban transformation entails problems that are beyond
the scope of urban management, however efficient this management may
be. Like many cities, Ilo suffers from an extreme shortage of new employ-
ment and existing wages in most sectors are very low. Ilo’s education
system is extremely deficient and it does little to help develop Ilo’s
competitiveness or optimize its comparative advantages. Iloans have little
sense of individual competitiveness and may be thought to lack an enter-
prising spirit.

Ilo also faces a number of problems within its industrial sector. Major
enterprises such as Southern are trapped by a history of polarizing their
workers. The company has no strategic modernization process for chang-
ing the worker profile, and focuses on total quality and comprehensive
management. This strategic weakness has led to backwardness in terms of
labour excellence. It has prevented the deployment of new capacities and
limited consultation among institutions for setting the stage for new
education to train competitive individuals. The city’s size poses a poten-
tial obstacle in overcoming these structural constraints. This is an area
where the limits of urban management are apparent.

The residents view these labour and educational limits as an impedi-
ment to integrated management of environmental, social and economic
affairs.

III. REASONS FOR ILO’S SUCCESS

AFTER 18 YEARS of management within a democratic government, there
has been a transformation in Ilo (see Table 4). This transformation merits
special discussion, since cities such as Chimbote, Talara, Oroya and Pisco,
which also have enclave economies, export industries and rapid popula-
tion growth with a substantial migrant composition, have been unable to
achieve anything comparable. Explanations such as, unlike Ilo, these cities
have no NGOs to assist the local government, that the local governments
have not been in office for six consecutive terms or that these cities have
not had to face a problem such as contamination, which has unified the
people, are not sufficient. Talara’s Socialist party led the city for decades,
as did the APRA in Chimbote. Oroya’s powerful labour and grassroots
organizations were often supported by NGOs and active political groups.

a. The Art of Combining Specific Elements

Ilo’s transformation is the result of action taken, with a unique combina-
tion of heritage, opportunity, coincidence, perseverance and decisions by
men and women, at specific times in its history. Many actions, decisions
and policies that have been applied have had useful or profitable results;
others cannot be viewed so positively. But all come from a synthesis of
three factors:
  • basic factors of the city;
  • the broader context within which Ilo is located; and
  • the attributes of its leaders.

The basic factors form the city’s heritage and underpin what might be
called the city’s personality. These include the physical and environmen-
tal features, the influences of its residents – including their composition,
lifestyles and idiosyncrasies – and the influence of the institutions and enterprises within the city. Below is a summary of some of these basic factors.

- **Scale of the city.** Intermediate; recent construction; high population growth rate.
- **Geopolitical position.** Pacific port near Atlantic Basin countries; near the Chilean and Bolivian borders.
- **Productive focus.** Mining and metallurgical processing; fishing industry; base for export activities.
- **Ecological features.** Hyperarid; desert area; rocky; severely contaminated and fragile; dependent on the natural water basin.
- **Socio-cultural features.** Andean migration; tradition of community service; port lifestyle; extensive labour activity; absence of firmly established traditions; state and private enterprises control economic and institutional affairs.
- **Basic infrastructure.** Road system; substantial energy supply and demand; scarce water from the natural basin; varied water supply sources; investment in communications; major industrial facilities in urban areas.
- **Social composition.** Primarily wage earners; working-class and “popular”; no upper-classes; recently consolidated middle-class.

The wider context within which the city developed includes all events, policies, economic flows, and technological, institutional and business changes. The following table shows the changes in Ilo’s key environmental indicators from 1981 to 1998:

<table>
<thead>
<tr>
<th>Environmental indicators</th>
<th>1981</th>
<th>1998</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illegal land uses for housing</td>
<td>35 %</td>
<td>0 %</td>
</tr>
<tr>
<td>Drinking water supply with home connections</td>
<td>40 %*</td>
<td>85 %*</td>
</tr>
<tr>
<td>Capacity reduction in the home drinking water system</td>
<td>60 %</td>
<td>30 %</td>
</tr>
<tr>
<td>Waste water treatment</td>
<td>0 %</td>
<td>95 %**</td>
</tr>
<tr>
<td>Solid waste collection</td>
<td>58 %</td>
<td>93 %</td>
</tr>
<tr>
<td>Solid waste treatment</td>
<td>0 %</td>
<td>93 %</td>
</tr>
<tr>
<td>Paved streets in the city centre</td>
<td>35 %</td>
<td>80 %</td>
</tr>
<tr>
<td>Paved streets in outlying neighbourhoods</td>
<td>0 %</td>
<td>60 %</td>
</tr>
<tr>
<td>Disposal of mining industry slag on the sea coast</td>
<td>100 %</td>
<td>0 %</td>
</tr>
<tr>
<td>Existing green areas</td>
<td>2 hectares</td>
<td>30 hectares</td>
</tr>
<tr>
<td>Emission of sulphurous gases from the copper foundry</td>
<td>100 %</td>
<td>85 %</td>
</tr>
<tr>
<td>Boron content of Ilo’s drinking water</td>
<td>10.7 mg/l</td>
<td>4 mg/l</td>
</tr>
<tr>
<td>Arsenic content of Ilo’s drinking water</td>
<td>0.13 mg/l</td>
<td>0.05 mg/l</td>
</tr>
<tr>
<td>Morbidity rate resulting from respiratory conditions</td>
<td>31 %</td>
<td>30 %</td>
</tr>
</tbody>
</table>

* In 1981, drinking water was available for an average of two hours per week. In 1998, the average was six hours per day.

** Treatment in tertiary bio-stabilization ponds (oxidation ponds suitable for irrigation)
developments at the national, regional and world levels that have brought some influence to bear (positive or negative) on the city’s development. In the last two decades, Ilo, like all Peruvian cities, has been influenced by a variety of factors, including the era of state and military control, the growth of the left wing at the end of the 1980s, the recovery of democracy, social violence, the process of change in economic relations during the early 1980s, national populism and the affirmation of liberalism, and the Fujimora era of the 1990s. Also, as in all other cities, there has been the influence of the worldwide technological revolution of the late 1980s, the end of the Cold War, the growth in support for environmental and human rights, the affirmation of the market economy, and globalization.

The attributes of Ilo’s leaders enabled them to adopt the appropriate focuses and attitudes to deal with the broader context and to take advantage of Ilo’s basic factors. Certain values were essential in ensuring the adoption of successful decisions and strategies: flexibility, tolerance and unity – summarized as concertación; creativity, hope and independent thinking – summarized as positive vision; conviction, optimism, perseverance and team work – summarized as leadership – see Figure 1.

Significant among the basic factors have been racial diversity and the absence of traditions. These are discussed here in the author’s conversations with Ilo’s current mayor, Ernesto Herrera.

Ernesto Herrera: Ilo is racially diverse, with people of many colours, ethnicities and cultures. It also has a substantial Andean component. One of the secrets that might account for some of Ilo’s achievements is that we have managed to channel the best of each component to form a local democracy, by working together.

José Luis López: A large migrant component and few traditional Iloans could have been a potentially serious problem – through a lack of identity. But we have embraced the impetus of the Andean community tradition, expressed in people, in connection with a major industrialization process, with the presence of the mining industry and the transformation into a wage-earning working class. Rural people became industrial labourers in an arid place. And the very difficulty of their situation became a great source of energy and challenge. Had we lived in a place where we only had to reach for an orange, with lush vegetation, we might not have had this dimension of people in Ilo, who were accustomed to living in difficult areas, such as the Andes highlands, who found new challenges. Ilo is very different from
the highlands but no less difficult. As Michael Potter concludes in his analysis of the factors underlying competitiveness, convenience never leads to innovation; difficulties, shortages and inconvenience stimulate people to devise innovative and competitive solutions, provided that they have the right leadership and the right opportunities at the right time.

**Ernesto Herrera:** Ilo’s disadvantages were transformed into potential. There was a population of only 4,000-5,000 in the 1950s and 1960s with the economy based in the valley and on some fishing. There were traditional Spanish families, some Italians and some Chinese immigrants. Suddenly, US$ 90-100 million was put into building a copper foundry and there was an incredible growth as people came here to work. New actors came and, with great effort, they expressed themselves through unions. Then the unions elected a local government to represent them.

**José Luis López:** This is the first factor in Ilo’s identity. The first identity was the proletarian and unionist sentiment, though this was partial rather than sectoral. It did not unite all of the citizens.

**Ernesto Herrera:** The unification of all of this diversity unleashed a creative potential which allowed us to find a way through the disorder and brought the possibility and hope of planning.

The framework of Ilo’s urban development encompassed a variety of community organizations, all creatively forged, but increasingly supported by the old community roots – a culture that was not conservative and showed itself receptive to change. This coincided with the rapidly changing world of the 1980s and 1990s and, from this, came new visions of development which the people adopted. This led to the construction of the citizens’ own identity as Iloans, residents of a city in transformation, “a turning point between disorder and hope”. Unlike other cities, no one feels foreign in Ilo. All are welcome, as if everyone is a recent arrival...this city feels like home immediately.

**b. The Vehicle for Connecting with the Context:**

**Environmental Issues**

There is nothing new about a city with environmental problems and the powerful environmentalist current that is present in Ilo today. But what is extraordinary, at least for countries such as Peru, is that a small port undertook a fight with Peru’s largest enterprise back in the early 1980s. This in itself was not that novel, given the ideological mood of the time (the 1980s) with its strong left-wing ideology of class struggle and anti-imperialist confrontation. The difference was that Ilo’s leaders and, in particular, its first mayor, Julio Díaz Palacios, used the environmental issue not only as a defence against aggression but also as a driving force for development, with ramifications for all areas of life and policy. Unlike other politicians at the time, Díaz was an author and one of his ground-breaking works, entitled *La ciudad que quiero ser* (“The City that I Want to Be”), compared Ilo to a sick person. This gave Ilo’s leadership tremendous legitimacy in the eyes of Southern, the main polluting enterprise.

The other element that later enabled a powerful synergy with the context was that, while most of Peru’s policies during the late 1980s focused on confrontation, Julio Díaz Palacios and Doris Balvín proposed a clear and unifying solution to the environmental problem, treating the company as part of the city and as a neighbour with whom they had to get along. Later, with the creation by government order of the Multi-sectoral Commission, for solving Ilo’s environmental problems and, finally, with the 1992 Rio Summit and the approval of Agenda 21, the connection with
the broader context was tremendously advantageous to Ilo. Of course, there had been previous pressure, such as the action filed by Ilo with the International Water Tribune in Amsterdam which judged that Southern was guilty of contaminating Ilo's water resources. In the world context, however, the stage had been set for an international mandate for cooperation and joint solutions to environmental problems.

**Ernesto Herrera:** A communal vision and team work within urban management provide you with a tremendous capacity to anticipate certain events and in doing so avoid serious problems... A key issue that should be singled out was clearly the environment and the mobilization of the community to demand an end to the pollution from smoke, slag and re-washing. This led to more extensive mobilizations, appeals to Peruvian and international courts, campaigns in Europe and the United States, approval of draft laws and proposals in multi-sectoral commissions. No type of cooperation, action or pressure was overlooked.

Today, re-washings are no longer discharged into the ocean, the slag is gradually being cleaned up and, by 2004, we can expect the foundry to stop polluting the air. Our major ecological movements involved representatives from Germany's Green party, with the entry of Schleninger Walter in 1985. This was seven years before the Rio Summit and when the environment was still a marginal topic in Latin America. Ilo made a name for itself in the environmental arena with the story of a small settlement confronting a powerful trans-national mining enterprise. And our perseverance and the favourable context have yielded the results that we are now beginning to experience.

**José Luis López:** Beginning in 1990, however, environmental issues started to be incorporated into the municipality's urban management and into organizations and enterprises themselves. Of particular note is the amount of environmental investment that has been made in the vision of Ilo as an ecological port. Today, it is natural for housing projects to include tree-planting, to be celebrated by all the people on June 5. The environmental component and awareness of its importance is part of the community's mentality.

**Ernesto Herrera:** And now, the challenge is for environmental issues to be included as a proposal for individual transformation, which should be a goal of Agenda 21. One of the keys in connecting basic factors with the broader context and with leadership is the ability to anticipate certain events in the context, and to find an appropriate response and to take decisions which, inevitably, entails risks.

**c. The Importance of Process and Design for Successful Action**

It is difficult to highlight the importance of process and design when we are living in a fast paced, results-oriented world. Success is judged by results – enterprises are judged by their profitability, local governments by their works, managers by the results obtained by those under their authority and NGOs by concrete indicators on poverty reduction or social or environmental improvement.

There is a powerful current within the management of enterprises that emphasizes training, excellence and high-quality management – and is a call for renewal and creative adaptation to change. To that end, the key is to understand how things are done or results are produced, and to take action, rather than to focus on products or specific things without the capacity to question them. This also has great relevance to city management and many of Ilo’s successful management results can be attributed to this capacity to change or adjust certain processes with a view to
creative realignments. Although this result is not easily achieved, creativity is within the scope of government leaders, provided they are working in the right direction.

But it is not sufficient for a person or group to come up with the right combination of basic factors, context and leadership mentalities to produce these successes. City management is more complex. For a better understanding, we must focus on the decision-making processes themselves and the actions that yield positive or negative results. We must also avoid an urban management that is based on models or formulae. The point of departure when considering urban management is that there are no set recipes or formulae, and the reasons for success cannot be considered as models.

Ernesto Herrera: I believe that cities are like people and that they develop within an environment that they perceive to be full of opportunities as well as threats. For example, globalization of the economy and technology worldwide can be a threat or an opportunity. Decisions must be made. Where the city is concerned, decisions must be made on urban transformation. First, you have your vision and then various different options. You can form a management committee, coordinate with the Defence Front (Frente de defensa) and wait for the government to give you the money, or you can work alone. You have four or five options and you choose one that you believe to be best suited to your situation. And if this is consistent and logical, even though it may not be the most certain, this enhances your chances of progress.

Cities, like people, can and should make mistakes. The key is that the city’s personality is being built in the process. Over time, a coherent and firm personality will be enriched and a weak and inconsistent one will be impoverished. This personality can only be forged through experience. The use of models and the focus on results do not help and, often, prevent the emergence of the unique experience that will affect your own unique personality.

José Luis López: But we have been taught to emphasize results over processes and to give more value to the outcome than to the design. In life, there are solutions because there are problems. Comparing cities with people and refusing to use set recipes for urban management is a challenge. In practice, is it useful if we affirm that no city’s experience is replicable? If so, how can successful experiences be transferred if we don’t have a point of departure?

Ernesto Herrera: We simplify or systematize only the aspects that work and, in so-doing, we generally fail to stop and ask, “what made this work?” Why did management committees work in Ilo or consultation forums in Catamarca or the recycling system in the Brazilian city of Curitiba? By starting with a consideration of the process rather than the results, the process cannot be viewed as the preliminary steps but as something more complex and comprehensive. This is why it is useful to see cities as being like people. They have styles, traumas, expectations, cultural diversity, etc.

The city and its leaders are personalities forged during the course of their unique experience. The process is the most important thing. The design is more important than the product and the result. However, our society and the international agencies with whom we work do not work in this way. In general, errors must be paid for – some dearly. Although learning from experience can involve simplifications, some ideas can be presented that will help us understand how to enrich a city’s personality without getting lost in the exercise.

To underscore the importance of action that focuses on the design and processes, it is worth noting the comments of Edward de Bono, author of one of the major theories of creative philosophy. He suggests that traditions in Western philosophy are based on analysis and reasoning, and that
the cornerstone of Western education is analysis. To understand information or situations, we must analyze them; and the Western emphasis on analysis is closely associated to the search for “truth”, a characteristic of Western thought.

In analysis, says Bono, we are interested in “things as they are”. In design, we are interested in “things as they could be”. It is commonly assumed that if we reveal the truth through analysis, it will be a simple and obvious matter to know what to do – for instance, as simple as consulting a good map that clearly indicates the paths, choosing a path and following it. Unfortunately, this is unrealistic. This action is routine, standard and obvious. Sometimes, we must “design” the appropriate course of action. We should attach the same importance to the design of ideas and action that we attach to analysis. But this is not generally done. Figure 2 below, prepared by the Monitor company, headed by Michael Porter, illustrates how an action is designed, and the theoretical framework on which it is based.

![Diagram of Designing an Action](image)

The central focus of this method is to present the framework of causalities and connections which explain why an action and a result occur. The boxes represent all of the components involved in generating an action. The context comes from the interplay of economic, social, cultural and institutional factors and the local, national and international framework. The institutions are formed by the organizations, the rules, plans and customs that make it possible to establish the control mechanisms to guide and generate an action. The action is composed of policies, strategies, projects and the decisions to mobilize resources to ensure certain concrete impacts, outputs or results forming the last box in the sequence.

But the mental models that come between the context and the institutions are often not considered when explaining an action. Michael Porter explains that people form images of reality based on the experience that they accumulate, see, select and interpret and according to behaviours they have learned and internalized as the personality is formed and developed. When the reality or context change and the images remain the same, paradigms, prejudices and ideologies are formed, influencing people through profound beliefs that are decisive factors in the development of
Societies do not generally explain the mentalities that are in play as they act only within the framework of actions, context and institutional changes. It has been found, however, that changes occur when the actors critically incorporate their world view and operating methods into their analysis.

We can use this theoretical framework in assessment and planning, when the only aim is to take appropriate action to obtain positive results, to react if they are unfavourable, to take action at the organizational level, to make the appropriate adjustments and enhancements to reflect a given result or context, or to determine the mentalities that form the implicit and invisible base of an action so that it can be reoriented. Viewed from another angle, this framework enables us to answer the following questions:

- what is the world around us like? (context);
- what do we see? (our paradigms);
- how do we view ourselves? (our frame of reference);
- how do we generate action? (our institutional framework);
- what have we done? (strategies and actions);
- and what have we achieved? (results and outputs).

Many errors can be attributed to the failure to correctly locate the plan of action – for example, redesigning an organization when the source of the problem might be found in the context; or through reacting with a change in strategy when the problem lies in the outlook; or immediate rejection of a strategy leading to abrupt organizational changes, when results could be improved merely through refined strategic action, enabling all connections to be causally consistent.

Positive action with the elements presented in the scheme, which also interact with each other, requires a process of creative inspiration to summarize or realign previously unrelated factors or phenomena, to produce a combined result that is better than each of its components. Below is an explanation of these concepts in connection with Ilo’s experience.

d. Trust, Order and Financing Mechanisms

The government in Ilo has had to confront the same basic problems that face governments in most other cities, namely:

- a lack of trust among many sectors of the population towards the government, including the municipality and its leaders;
- the ineffectiveness of most municipal governments and the lack of mechanisms to allow limited resources to be allocated efficiently; and
- the scarcity of financial resources to generate action such as funding public works.

In Ilo, these basic problems have been addressed in some creative ways. The management committees and the municipal housing programmes, both described earlier in this paper, serve as good examples.

**Management committees.** As noted earlier, groups of residents come together in these committees, in conjunction with the municipality, to implement a project in their neighbourhood. Within these management committees, the interests of both community actors and the municipality are clear. From the residents’ perspective, management committees constitute a simple and flexible mechanism to ensure that the municipality’s investments will be directly beneficial and properly supervised. From the
municipality’s standpoint, management committees enable the administrative bureaucracy to function flexibly and dynamically. The savings that arise from cost-sharing with the community also allow a significant expansion of objectives. This system provides sufficient support for other institutions, such as the NGO Labor and other government and private institutions, to invest through a rotating fund or through direct grants or donations. For example, for the construction of a 720 square metre block in the Tren al Sur settlement, the community provided labour, concrete, fuel, water and US$ 3,580; the municipality contributed US$ 2,200. In the paving of 528 square metres of cité 15 of San Pedro Alto Ilo, the community contributed US$ 3,200 and the municipality US$ 600.

According to the study of Ilo’s experience with concertación in urban environmental management, the average cost structure for a management committee project is US$ 4,278 – US$1,370 contributed by the municipality (32 per cent) and approximately US$ 2,908 (68 per cent) by the community. Without this system, the municipality would have executed only 100 works rather than 300, and problems such as lack of trust, insufficient supervision of investments and insufficient resources would still exist.

**Municipal housing programmes.** The aims here are similar to those of the management committees – to generate a climate of trust, reflecting the residents’ traditions of community service, organized with clear rules, with self-support and self-construction as a financing strategy.

The provincial municipality of Ilo began using concertación with the community to develop municipal housing programmes (PROMUVI) in 1989, based on the urban expansion areas defined in Ilo’s master plan. There was a strengthening of community capacities and traditions, historically developed through social organization, with a view to using these in urban land use processes. In effect, the municipality was adopting forms of association used by “land invaders” but integrated with the municipality’s planning and regulations. Clear rules are established and implemented by mutual agreement, such as compliance with the master plan, single ownership, self-financing, active participation in various phases of the programme and specific goals. Compliance with these arrangements creates a climate of trust, ensuring order and efficiency.

With regard to self-support, PROMUVI implements a self-financing strategy for the gradual servicing of urban lots, and legal and physical reorganization, jointly with the municipality and local assemblies. The results have been excellent, with more than 5,500 lots serviced in five years. Programme beneficiaries pay their own expenses: fees for processing, authorization for lot occupation, adjudication and property title. These charges finance expenses incurred by government bodies throughout the process and ensure that each step of the phase is properly executed.

Efficient self-construction is also well-established, based on support through credit and supervised by a number of institutions, with international cooperation through the NGO Labor. Loans from the Materials Bank (Banco Materiales) have benefited some 600 families (14.8 per cent of the assigned lots), while loans from Enace have benefited 1,100 families (27 per cent) and those from Labor approximately 350 families, (9 per cent). Another 106 cases (2.6 per cent) were self-financed. There are still 2,000 dwellings where no investment has been made.

In other words, the aim was to create a climate of trust, meeting commitments, respecting agreements and reflecting Andean community
tradi t ions. In the institutional sector, the organizational structure of the “invaders” was respected and adapted to reflect municipal organization and the strategy to promote self-construction and self-financing.

Environmental issues were incorporated from the outset – for instance, with the construction of water supply facilities, with active support from the water company, Empresa del Agua Seda Ilo, the provision of septic tanks and tree-planting. Grassroots organizations were also involved in projects on electrification, water, sewers, and road-grading and marking. Regarding the municipality’s relationship with Empresa Southern, the mayor had this to say:

_Ernesto Herrera_: What is the secret of our rapprochement? The first experiment we handled together was the paving of a road – a problem which was perceived to be shared by the company and the municipality. We divided up the problems and determined each party’s responsibility for addressing them. For example, the company claimed it had the right to use a zone of 20 metres each side of the railway track, which the community needed for a street. An agreement was reached and a level of trust established which changed a confrontational and contradictory relationship that had lasted for more than 30 years. From this, we could begin to build another agreement that would be honoured. That, in a nutshell, was the secret – to keep one’s word. Companies do not generally trust the public sector and there is generally no strategy within local government to deal with them.

**e. A Vision that Generates Results**

Beyond the sequence of successful decisions runs something deeper – the vision that promoted them. Some thought must be given to how the positive vision of the future came to be adopted by the communities.

It is not clear, at least in Peru, that it is sufficient to have a need to identify with and generate actions to solve the problems. People’s attitudes are more complex. In general, groups of people are motivated more by the desire to achieve positive results in the future than simply by solving a current problem. People are motivated by an ideal, a dream and the hope of individual accomplishment in that connection.

In Ilo, there was an obvious need – to control pollution. This helped unify people. But need is not the only input to foster change. An ideal, a dream is important. This is often not understood by international agencies and their staff. They consider positive visions and dreams to be something else or, even worse, something that comes after poverty reduction – or that they are policy issues.

_Ernesto Herrera_: Vision is not the development plans, action platforms or programmes. We had a great deal of these, and they were important, but this was not the substance of a vision. The sum of interests and desires produced and recorded at meetings was more than this. Vision is not the expression of needs although this is a contributing factor.

What developed in Ilo was a vision that was sustainable, not fleeting. It was a vision that was not created from social polarization. Instead, it is an open and detailed design in which everyone participates. I believe that the vision cannot come from outside. It is human nature to have dreams. Among many people who are very poor, even in the worst of conditions, they have dreams – the hope of having a child who will one day be a football champion and will help everyone or for a worker to send their child to the university so that she or he will be the pride and salvation of the household.

This hope lends itself so easily to manipulation – by governments, by the media, by businesses or by anyone in power. At the local level in Ilo, we also face these
dilemmas and, in our case, we could understand these human aspirations. We also understand that they should not be cast into one mould. We understood their variety, and the visions that we proposed were like the thread running through a large cloth, the great coat of the city, in which everyone felt they were a participant. We helped to ensure that these aspirations were transformed or channelled into a positive and collective direction, for the city itself – planting trees, paving streets, building plazas and houses. This energy was channelled but without changing its essence. The kind of thread that makes up this coat is not important. In the end, it became a coat of many colours, with the colours of diversity – unique, sustainable and beautiful.

Juan Luis Lopez: Visions can be said to be the positive interpretation of the collective subconscious, at the right time. When some societies are presented with options for change, it is the expression of a sequence of many local, personal or sectoral initiatives, a combination of many personal and community efforts which are dispersed but which all move in the right direction. The vision is reflected and projected and, if it coincides with the right national and international context and the necessary leaders, the historic moment for change occurs.

Take the example of the pier project which began in August 1994. It reached its culmination when Ilo served as the site of the 19th international underwater fishing championship, and the main activities were held at the Stage One pier and amphitheatre. According to the sports enthusiasts who attended this, the level of local participation and hospitality was unprecedented. The inauguration was the best attended, most spectacular and varied event in this young city’s history. The organizing commission, composed of representatives from all institutions, was responsible for four days of activities with 3,000 participants. Underwater fishermen came in daily to weigh their catch and register points to determine the winner. One enthusiastic resident commented that the event was “like having our own Olympics”.

Construction workers donated days of labour to complete the works, hundreds of students cleaned the beaches, dozens of residents improved their homes, as the organizing commission informed them that there would be more visitors than all of Ilo’s hotels could accommodate. This achievement is an early sign of the positive future outlook of Ilo as a modern and clean bi-oceanic port and tourist destination.

f. Realizing Visions in Practice

For an activity to be carried out successfully, it is often not enough to start with a vision or to have a match between institutions and projects. The key practical element for positive results at the small scale is persuasion and subsequent replicability.

Ernesto Herrera: The relationship between concrete practices and dreams put into action is dynamic. You have a dream that can be put into action, that is, a comprehensive image of the city – detailed, feasible and supported by the community. In other words, a vision. But this is not the proper point of departure. You have to build a vision that is constantly enhanced in practice, a vision that is visible and verifiable although you cannot see the whole vision. In this case, again, the design is more important than the results themselves.

In practice, visions are enhanced or they are cast aside. Practice, pilot experiences, implementation, not only put an end to abstract and interminable coffee house discussions, they also mean that the government’s promises, or grandiose discourse, must meet with reality. And these promises and discussions, at whatever scale, are put into practice and the discrepancies ironed out. Thus, they
become adapted to reality. In the case of the intermediate pier of the pueblos jóvenes, pragmatic and immediate questions attract attention and clarify the vision – should the stairway be there, on the south or on the north? Is it wide enough? Should we put a garden there or a square?

We should recall the experience with the Kennedy pier. First we put in the stairway, built by the micro-region. People were given the inputs, but not dreams, and they did not want to work any more. So, we told them if they wanted things to improve, they would have to work with us. Here is the design of the stairway and this is what we must do. And people participated in the gestation of the project. It wasn’t presented as a fait accompli. You put elements gradually on a blank page. You make a sketch. As you make the sketch, the artist gains enthusiasm and will add the finishing touches. This happens in practice, refuelling the vision. This is the secret.

I once asked a group of residents how they thought we worked with the Kennedy people. I used a lamp and a painted plan to explain the pier to them. They were not interested in the beginning – it seemed very abstract and impossible to picture a totally green design for their settlement. The only thing they understood was that they should go down the staircase rather than through the dump.

Later, however, when the stairway was under construction, they realized that they had a space and that a garden could be made and, later, in the upper part, a square and another garden could be made. And that trees could be planted and that they could sit in the square and look at the ocean. Shops would have more business. The pier was then embraced as a harmonious unit with all of Ilo – the people could imagine a green Ilo and the blue sea.

What are the most important aspects of the politician’s vision, of democratic policy decisions? A first step is being able to link grassroots issues – the residents’ demands – with a more comprehensive solution. When and how you make the jump from the local to provincial level and solve the problem. Another issue is how to encourage residents to participate, not only with a view to their personal improvement with each stairway but also for the resident’s committee to support this and, later, for all of the committees to make all of the stairways possible. Then they will realize that they have contributed significantly to the quality of life and have improved the look of the entire city. In other words, weave the individual with the group, the micro with the macro.

IV. SOME FINAL RECOMMENDATIONS

THIS PAPER HAS sought to highlight some reasons to explain the success of a city. But it has also emphasized that the most important issue is to understand that cities are like people and that they must develop their own personality, learning from their experiences – including the mistakes.

Agenda 21 and the resolutions from the 1992 Rio Summit have become a powerful vehicle for cities to develop efficient urban environmental management practices. In fact, the environment is a common thread in all of Ilo’s experience. And in the coming years, Ilo’s challenge will be to achieve collective transformation based on the individual transformation of competitive, tolerant and modern residents.

Without wanting to provide specific formulae, we will present some ideas for an enhanced understanding of Agenda 21 and urban environmental management of small cities such as Ilo.

Dignity and optimism in addressing poverty. Although Ilo is a poor community, we believe that bread and beauty are compatible. As mayor Herrera commented, “…poverty can be approached with dignity. I believe
that this has been one of the secrets enabling people to transform their city without losing optimism. We can make a neighbourhood with the little that we have. In such rugged geography, we will have roses. We will plant roses; if they die, we will plant ficus; and if they die, we can have wildflowers, pepper trees and casuarinas. Otherwise, we will have trees. And if concrete is expensive, we will have plenty of stone to build Inca walls facing the sea because we make necessity a resource."

**Small cities govern themselves best when they find their strengths.** No city should take a passive approach to its resources, geography, remoteness or history. By encouraging autonomous thought and persistent action, disadvantages can be transformed into advantages, weaknesses escaped and strengths converted into a driving force. Our arid climate encouraged us to unite on the basis of major demands, stimulated a love of nature, and moved citizens to effort and creativity. Our remoteness positioned us as a port access with a view to integration into the world economy. Our lack of identity invited us to build a new one, receptive to ideas and the best of traditions. Our diversity attracts cultures and optimism, encouraging community effort.

**Agenda 21 will empower communities to transform themselves, with a focus on individual transformation.** The present context with the progress in universal rights, the recognition of common problems such as environmental issues affecting the entire world, the weakening of exclusive ideologies, the democratization of information and the upgrading of local societies set the stage for Agenda 21 to transform mentalities, increase capacities and foster attitudes for change and a focus on self-esteem and self-discovery.

*But in what areas can action be taken?*

**Transforming consumption habits.** This is one of the central issues of Agenda 21 and may be encouraged by stimulating the implementation of Agenda 21 at home, generating South-North movements that promote consumption alternatives, and promoting consumption in harmony with personal equilibrium and nature.

**Building a common language.** A common language that can be offered by the major international impulse that is Agenda 21 is not a model but a set of images, meanings, names and experiences in management, jointly accepted by government and local community leaders in building their agendas. This effort will require dissemination strategies.

**Education and information to generate creative thought.** Innovative education to generate creative mentalities is the best way to encourage participation, especially among youth and children. There is a need for education in Agenda 21, offering a focus on equity, sustainability and a new relationship between people and nature. Information is a valuable tool for progress in other areas.

**Promoting leadership.** Agenda 21 is an excellent forum to promote leadership and development among citizens, community leaders and institutions. The right leaders can help unify the diverse personal energies in the community, channelling their dreams and unifying them in practice, in a specific context.

**Vision, concertación and leadership.** The power of change in local communities. The aim of individual development through Agenda 21 creates conditions for the local communities themselves to generate positive visions of the future, disseminating their consultation and conviviality practices and choosing leaders who can anticipate a change of context and recognize opportunities.
**Positive visions.** The aim is to establish images for fostering integration, without exclusionary social polarization or adjustments, to achieve pre-established results in connection with an external concept of modernization but, above all, to design a constructive process in which all participate and with which all feel they can identify.

**Consultation practices.** Consultation fosters attitudes based on self-esteem, discovery of our inside world and practice of tolerance. Trust is a component of teamwork among citizens, institutions and enterprises; a fabric that includes microcosms and macrocosms, the local level and national level, your interest and mine; an everyday, liberal system, departing from imposed structures, generating spontaneous dynamics of teamwork.

**Leadership.** Leaders who come from open communities, prepared to recreate their traditions while incorporating innovations, banishing patriarchy, the caste system and tribal rivalries. At unique historic moments, leaders help communities understand causalities and negotiate needs, with a positive interpretation of the collective subconscious of the people, building bridges between dreams and reality.