

### **3.4 Functional differentiation**

The consolidation of informal settlements is reflected by the increase of commercial activities. Therefore, the commercialization process in Ciudad Nezahualcóyotl was documented considering the period 1980 up to now.

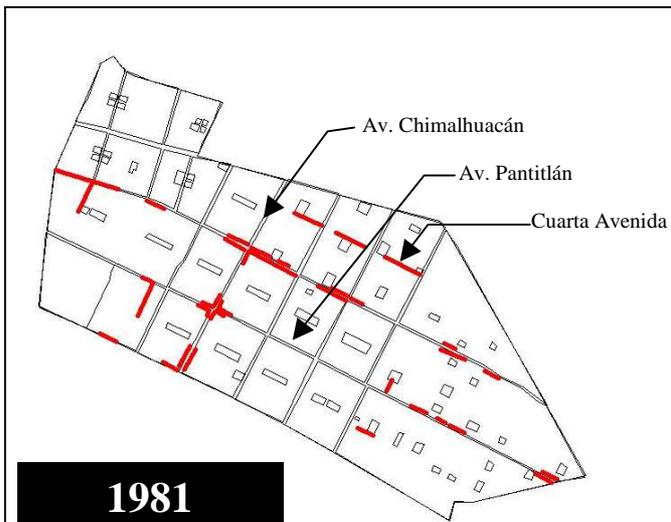
#### **Commercial specialization in the main axis**

In the last twenty years, spontaneous commerce has become the main activity of the city. There is no typical “business center” as such, but linear commercial axis or corridors with a wide range of commercial activities, which have evolved according to the historical development of Neza.

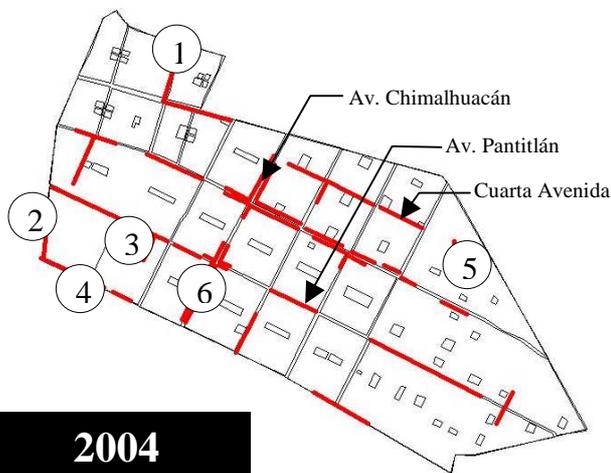
The stores selling parts for sewing machines have supplied the informal textile industry, which existed there since the beginnings of the urbanization of Neza. Typically, these stores concentrate in the main avenue. Close to this avenue, other commercial strips have developed since more than 20 years, e.g. stores for clothing, auto-parts and traditional food markets, all of them located in the first Settlements Area.

While some areas remain as traditional commercial subcentres, other have become attractive locations for new investments, i.e. large commercial centers can be found now also in informal settlements. Recently, in the western part of Neza a small commercial center, a chain store and a small cinema were built. For this purpose the investors bought and demolished some private houses and even relocated a public hospital.

The commercial activities satisfy not only the needs of the local population but also those of the Metropolis. In the northwest an informal market of used autos takes place every week, where second hand cars from the entire metropolitan area are sold (see Photo 1).



1981



2004

### Legend

- ① Informal market of used autos
- ② Informal meat market
- ③ Commercial strip for clothing
- ④ Commercial strip for auto parts
- ⑤ Commercial center
- ⑥ Commercial strip for sewing machines
- Commercial axis

1



2



4



5



### 3.4.1

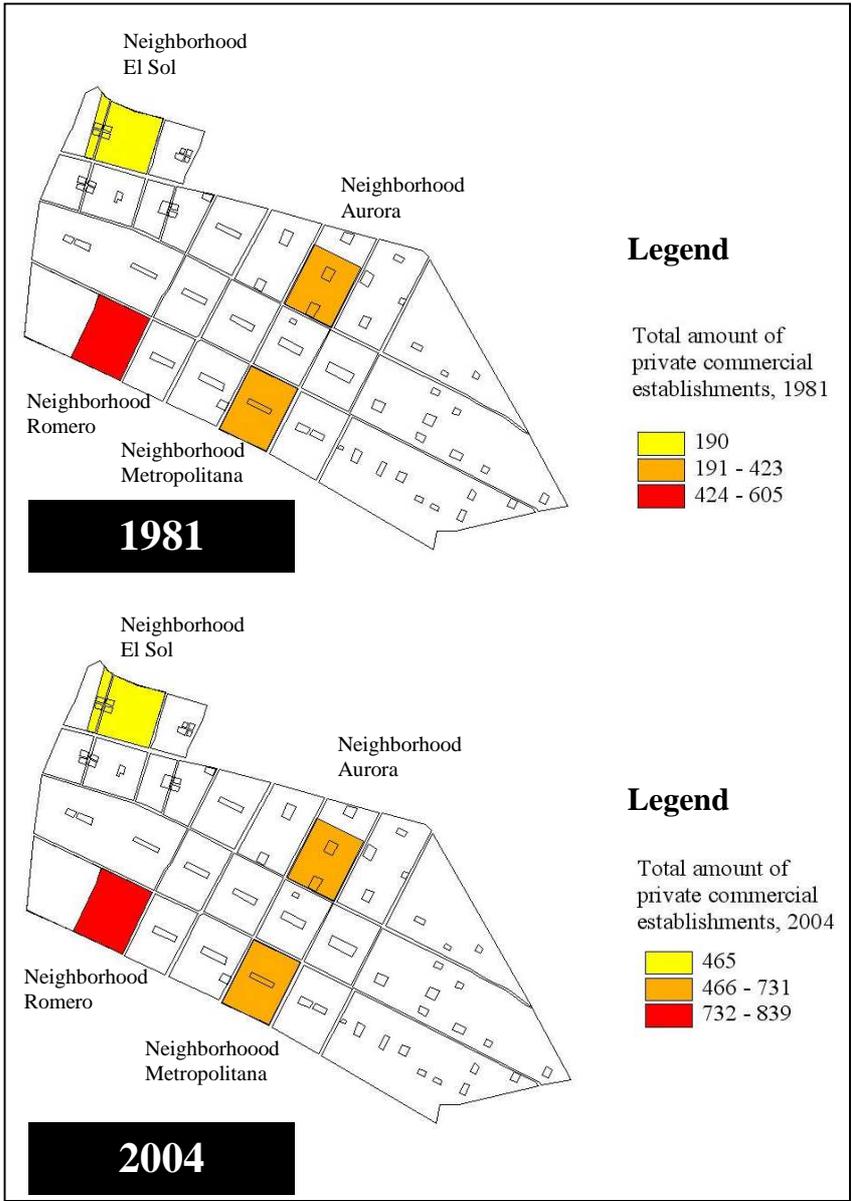
Commercialization process in avenues of Ciudad Nezahualcóyotl, 1981-2004

### **Commercialization of blocks, 1980-2004**

Approx. 15 years after the first urbanization of Neza, a differentiated commerce could already be found in 1980. In the old area close to the Metropolis, the commercial establishments were most frequent (see Figure 3.4.2., in red). The neighborhoods of the old Settlement area contained a medium level of commerce (marked in orange) and in the younger areas the lowest level of commercial activities were found (in yellow). Twenty years later, the picture was almost the same (see picture).

However, in recent times it can be observed that in absolute terms, the total number of commercial establishments is beginning to decrease in the old area and increases in the younger ones (see Table in Figure 3.4.2).

In any case, the Neighbourhood Romero contains the largest amount of commercial establishments but tends to decrease now, whereas in Neighbourhood Aurora in the Old Settlement Area commercial activities are rapidly increasing. If commerce is considered to reflect income, it becomes clear that the First Settlement Area is losing attractiveness, while the younger ones are increasing their commercial attractiveness.



Examples of commercial avenues in Ciudad Neza

Year	Number of commercial establishments according to Blocks, 1981 and 2004			
	Romero	Metropolitana	Aurora	El Sol
1981	605	423	395	190
2004	839	694	731	465
Difference	234	271	336	275

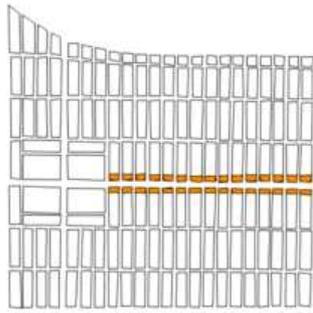
**3.4.2**  
Commercialization process in four blocks of Ciudad Nezahualcóyotl, 1981-2004

## **Spatial patterns of commercial agglomerations**

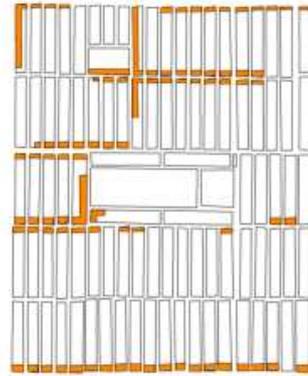
In addition to the commercial main axis there are internal commercial corridors following the route of buses and merging with the “zonas públicas” of the superblocks, specially if those are located centrally.

The commercial corridors can be continuous or segmented. Sometimes, only one side of the corridor is commercialized, whereas the other side is occupied by smaller houses. Naturally, this has an impact on the land value, therefore land taxation differentiates between “areas” and “strips” as it can be seen on the land taxation map.

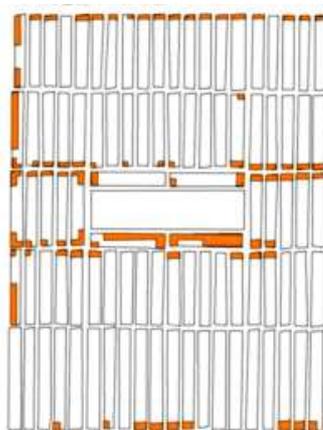
If a superblock locates at the center of the city it will be normally surrounded by commercial activities, whereas in the peripheral blocks only some shops for the basic needs are found. Following the hypothesis that, old neighbourhoods have a higher level of commerce, a closer look on 4 blocks and the families living there was undertaken.



a)



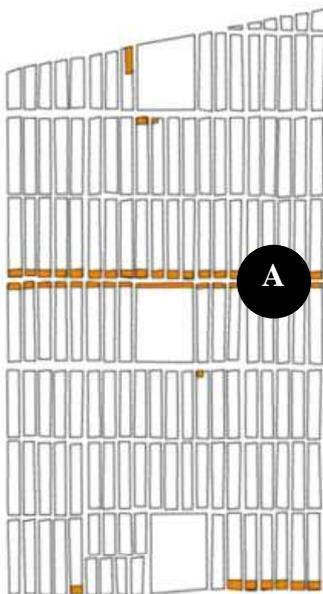
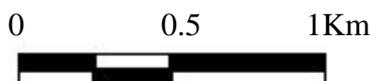
b)



**Legend**

 Commercial Agglomeration

Approximated scale



c)



**3.4.3**

Spatial types of commercial agglomerations in Ciudad Nezahualc6yotl, 2003

## **Renting and Real Estate Market**

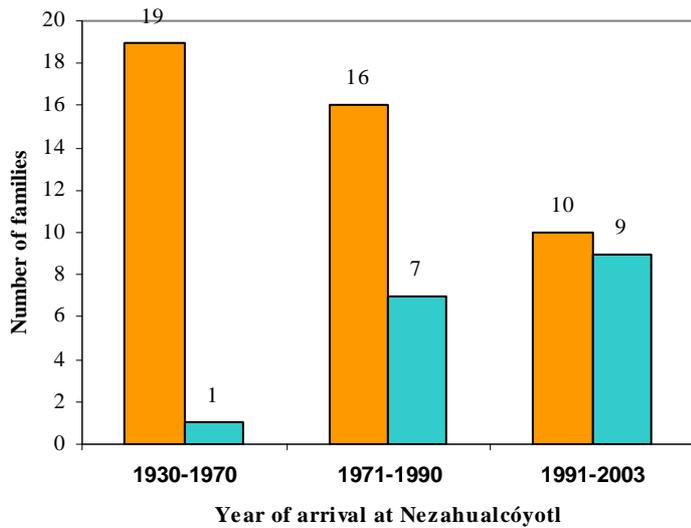
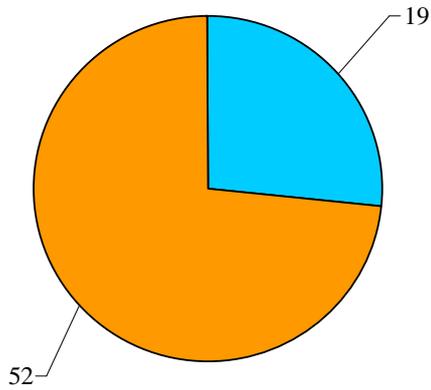
Since its origins, Ciudad Nezahualcóyotl, has been composed of inhabitants from the most diverse geographical origin and familiar composition. In order to promote social life in the city, one of the first steps could be to understand the makeup of the population. For this, and based on information of the surveys, a “differentiation” of families is proposed.

A first demographical feature to explore in a “self-built city” would be to see if the original owners self-built house were still living there. It would be expected, that the initial “consolidators” would be still living there, if not their children, at least in the oldest parts of Ciudad Nezahualcóyotl.

Approximately three quarters of the families are owners and the rest are tenants. In general both “types” of families were found in all the neighbourhoods. What is remarkable is not so much the ownerships/renters proportion, but the fact, that renting and houses for sale is a phenomenon which goes hand in hand with time: the largest number of owners came to the city between 1930 and 1970. In the following decades more families moved to Neza to own a house, but the numbers of these families decreased with time, so that for the period between 1991 and 2003 the number of families-owners and the number of renters was almost the same.

A similar trend can be seen if the age of the neighbourhoods is considered. The largest amount of houses for sale was found in Romero neighbourhood, which is the oldest part of the city. Here, the appearance of the houses for sale varies, but the majority are finished two storey houses.

To the north east, close to the City Hall, most families were owners. The population of this area could be considered as more stable in terms of their mobility. The houses for sale here were relatively few.



\*9 cases without information

### 3.4.4

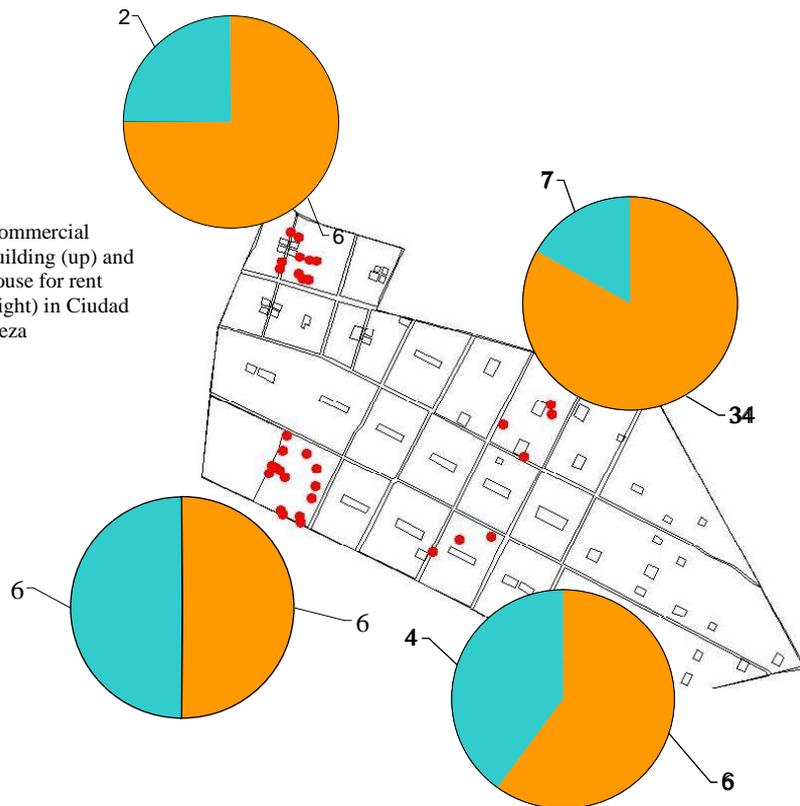
Total amount of owners and tenants in Ciudad Nezahualc6yotl according to field study\*



Commercial building (up) and house for rent (right) in Ciudad Neza

### Legend

- Owners
- Tenants
- Dwellings for sale



### 3.4.5

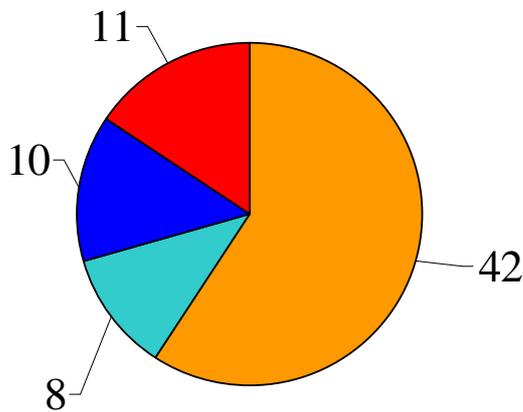
Proportion of owners and tenants in four blocks of Ciudad Nezahualc6yotl according to field study and location of houses for sale

## A typology of families

Although the categories become more complex they are also informative if the spatial trajectory is considered. Following Turner's model assumptions (see Chapter 1), the "older" the family, the higher the possibility of moving out to search a house with more shelter quality. In the case of Neza, the search for more shelter quality starts in the same municipality: some families who had lived in Ciudad Nezahualcóyotl before, decided to move **into the same Municipality** to rent or to buy an own house. This shows a certain complex "internal mobility", which can be distinctly observed. Thus, some of the identified "residential trajectories" include:

-  Owners coming from other municipalities. These are families who lived in "another municipality" before coming to Nezahualcóyotl to buy or construct an own house. They represent the largest group of the surveyed families, totaling 42 cases. Families with this trajectory predominate numerically in all the Neighborhoods.
-  Tenants coming from Nezahualcóyotl. These are families who had previously lived in Nezahualcóyotl and moved into the same Neza to rent in another location. They represent quantitatively the second largest group with 11 families. This trajectory is predominant in the **Romero neighborhood**, the oldest surveyed neighborhood.
-  Owners coming from Nezahualcóyotl. These are families who had previously lived in Nezahualcóyotl as tenants or owners, and bought a house in another place in the same Neza. Quantitatively the number of this families is almost the same of the previous category and they predominate in **Neighborhood Aurora**, a relative old neighborhood and located close to the City Hall.
-  Tenants coming from other municipalities. They represent the smallest group and they are families that lived previously in a municipality different from Nezahualcóyotl and who came to rent to Neza.

The spectrum of families in each neighborhood is clearly quite broad but the group of families who own a house still seem to dominate (52 from 71 surveys). If these families wish to move out of Nezahualcóyotl or stay is examined in the below comments.

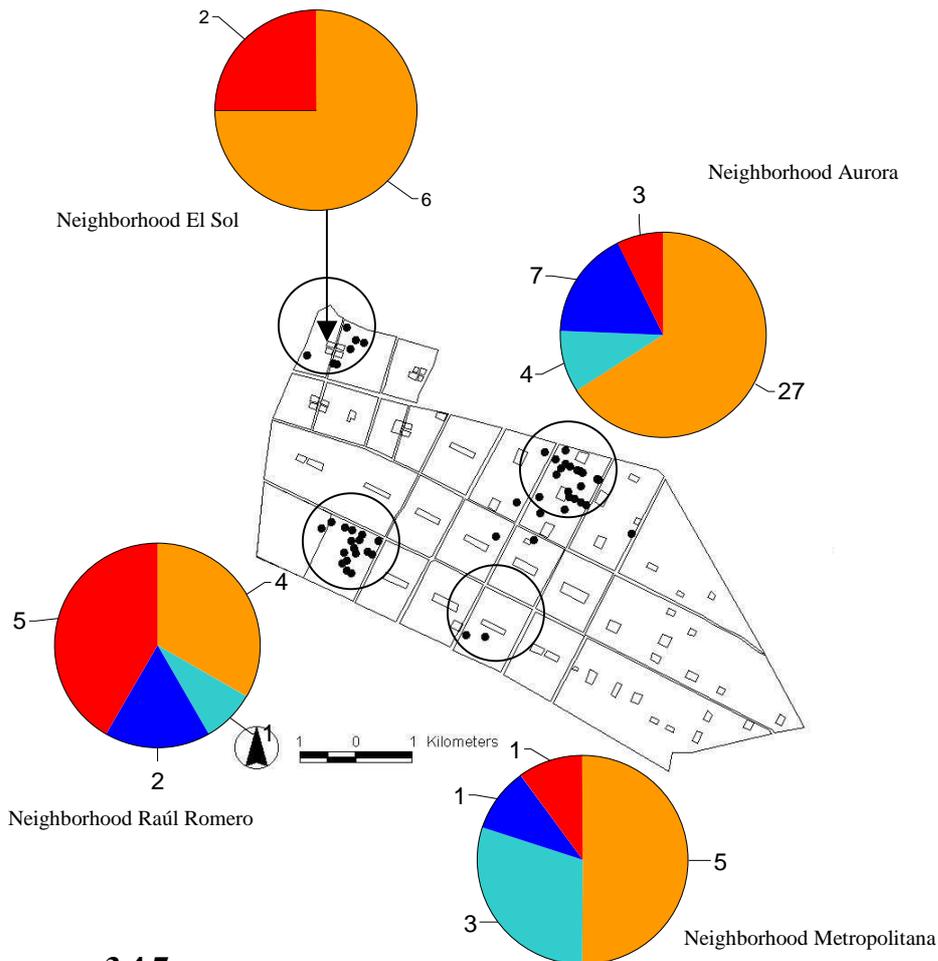


**Legend**

- Owners coming from other municipalities
- Tenants coming from Nezahualcóyotl
- Owners coming from Nezahualcóyotl
- Tenants coming from other municipalities

**3.4.6**

Types of families living in Ciudad Nezahualcóyotl according to field study



**3.4.7**

Types of families living in Ciudad Nezahualcóyotl according to the surveyed blocks

## **Mobility of the families: origin and destiny**

In the last thirty years thousands of families have built their own houses. Despite being able to solve communal problems during this period, many new ones developed. Would these problems be reason enough for families to move?

Many families who rent would leave simple because the rent is too high – even when renting means a 20 square meters room to eat and sleep-, and they would seek similar lodgings in Nezahualcóyotl or in the neighboring but younger informal settlements such as *Valle de Chalco* or *Chimalhuacán* ,-Federal District was just rarely mentioned as an option.

For the families with the possibility to buy a house, the opinions are divided; however the majority would seek to move into the same municipality of Neza or to younger informal settlements. A similar answer was found for the decisions of the previous owners. When possible, the address of the previous dwellers was asked and the majority had chosen the same Neza or younger informal settlements as the new place of residence.

In spite of problems like insecurity and infrastructure deficits (see next pages), for the majority of the residents Ciudad Nezahualcóyotl is still the option to continue their lives if moving out. The reasons for these are multiple, but, for many of them, Ciudad Neza is simple where they maintain their familiar ties. A further factor, is, Ciudad Neza represents a secure income source for many as they are restaurants owners, or run commercial businesses in the area. For those, beginning a new business elsewhere would be risky, and very difficult.

The social and functional attributes of informal settlements inside the Megalopolis seem to play a critical factor in the permanence of the population there. This fact is fundamental when considering the formulation of urban policies on issues such relocation or urban restructuring.

**Possible destiny of actual dwellers**

*Nezahualc6yotl (Colonia El Sol), because the rent is expensive*  
*Nezahualc6yotl*  
*Nezahualc6yotl*  
*Other municipality (Chalco), because I would like to have my own house*

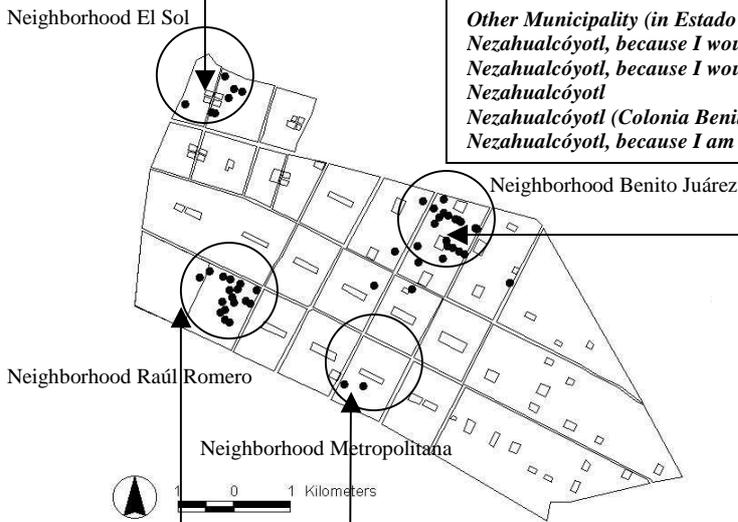


**Destiny of the previous dwellers**

*Other municipality*  
*Other State*  
*Nezahualc6yotl*  
*Nezahualc6yotl*  
*Nezahualc6yotl (Colonia El Sol)*

**Possible destiny of actual dwellers**

*Other Municipality (in Estado de M6xico), because I would like to have my own house*  
*Nezahualc6yotl, because I would like to have my own house*  
*Nezahualc6yotl, because I would like to have my own house*  
*Nezahualc6yotl*  
*Nezahualc6yotl (Colonia Benito Ju6rez), to look for something more comfortable*  
*Nezahualc6yotl, because I am renting*



**Destiny of the previous dwellers**

*Other State*  
*Other municipality (in Estado de M6xico)*  
*Other municipality (Chalco)*  
*Other municipality (Chimalhuac6n)*  
*Nezahualc6yotl*  
*Nezahualc6yotl*  
*Nezahualc6yotl*  
*Nezahualc6yotl*

**Possible destiny of actual dwellers**

*Nezahualc6yotl*

**Destiny of the previous dwellers**

*Other municipality (Los Reyes)*



**Possible destiny of actual dwellers**

*Other Municipality (Chimalhuac6n), because the rent is very expensive*  
*Federal District, to look for something better*  
*Nezahualc6yotl*  
*Federal District, because we are renting*



**Destiny of the previous dwellers**

*Nezahualc6yotl (Palacio de Gobierno)*  
*Nezahualc6yotl (Colonia Agua Azul)*  
*Nezahualc6yotl*  
*Federal District*  
*Other State*



**3.4.8**

Previous place of residence of owners and tenants in Ciudad Nezahualc6yotl and possible place of destiny if moving out

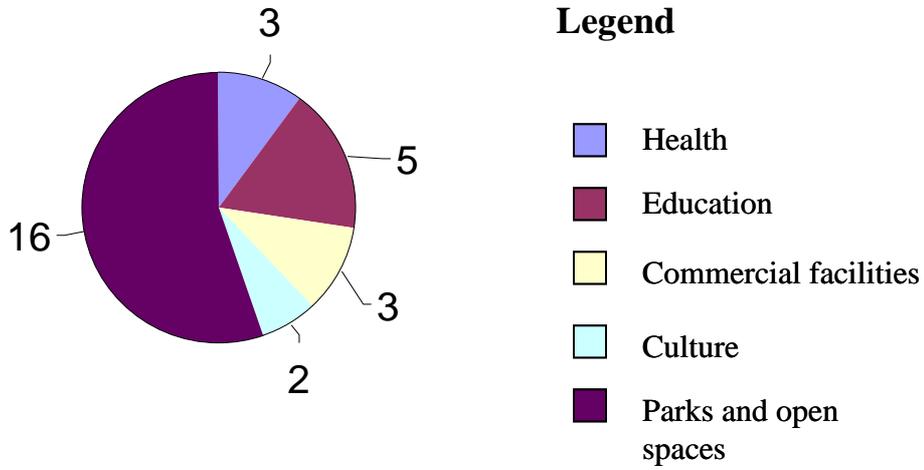
## **Public facilities deficit perceived by the population**

While commerce multiplies accordingly to population growth; the construction of public facilities develops very slowly due to the lack of space as well as both public and private investments. Today, the demand for public services surpasses much of the supply. Furthermore the diverse set of needs reflects the character of the population.

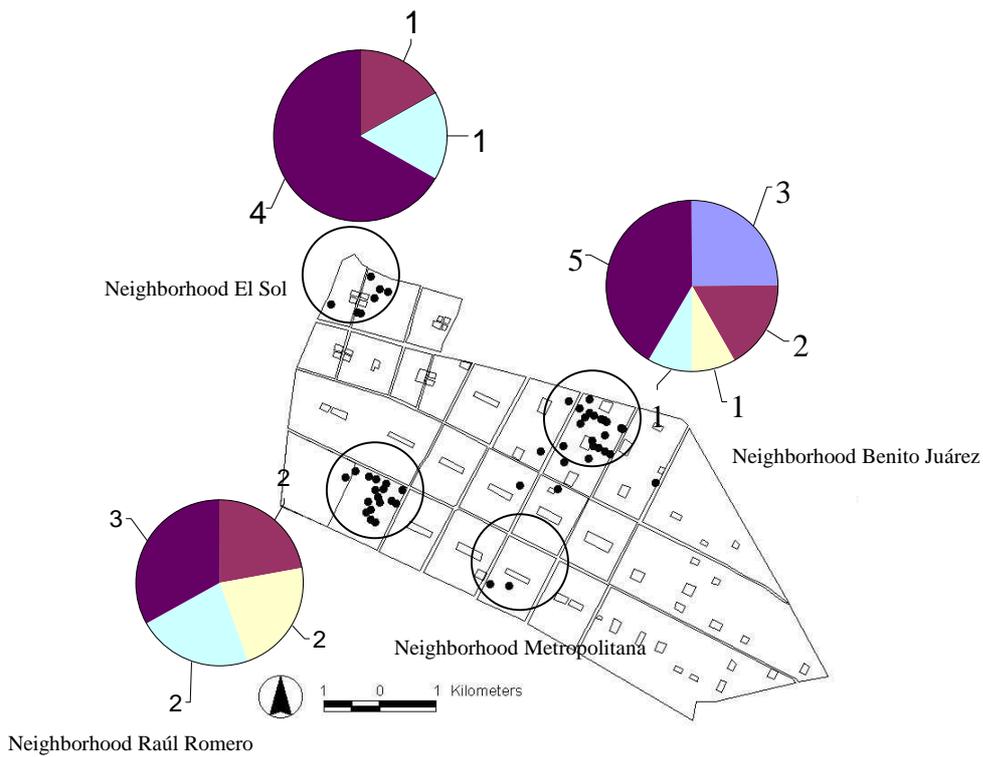
Not only has the lack of health facilities, but also inadequate public kindergartens and preschools posed a major problem for families with young children, as has accordingly been identified in surveys.

The nature in which Ciudad Nezahualcóyotl grew and developed into an formal municipality created a strong communal sense. It is precisely this sense which inspires various artists, painters and musicians and has promoted an array of cultural activities. This serves as a strong incentive for many of its inhabitants. General opinion shows however, that the city lacks parks and open spaces to undertake such cultural activities.

Due to the configuration of the urban grid of Neza, space for parks was not considered. It is only recently that the local government has started to search for possible opportunities to build public spaces at certain points of the city (see interview with the Major of Neza, in Appendix). The existence of open spaces is specially important for the young and children as it provides further recreational activities, this becomes paramount considering that young gangs and drug handling has become a social problem in recent years.



**3.4.9**  
Public facilities deficit in Ciudad Nezahualcóyotl (public perception)



**3.4.10**  
Public facilities deficit in Ciudad Nezahualcóyotl (public perception)

## **Problems in Ciudad Nezahualcóyotl**

Informal settlements are in their very nature places that manifest economic, social and ecological problems. Ciudad Nezahualcóyotl proves to be no exception.

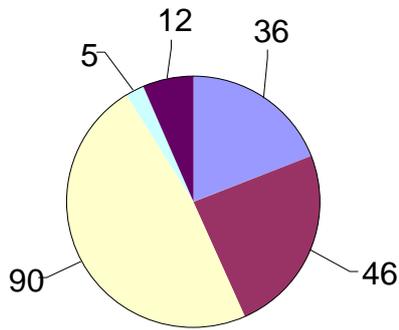
As a former lake, the soil of Ciudad Nezahualcóyotl is completely plain and water can be found just a few meters under the earth level. The construction of a complex drill system to drain the water has not been enough to prevent the city from regularly being flooded when the rainfall is heavy.

In the opinion of the residents, solving the infrastructure problems should be a priority for the local administration; a lack of drainage causes periodical flooding which is worsened by insufficient garbage service collection which has made the already minimal drainage even more difficult. Periodically energy breaks are just a few of the issues that the local administrations need to address.

Economically, the city can only offer jobs to small commerce; foreign investments remains low and rare, which in turn forces few young professionals to move somewhere else (see interview with the mayor of Ciudad Nezahualcóyotl). The lack of perspectives and recreational activities for the young population creates social problems which leads to greater public insecurity.

The existence of young bands, drug traffic and drug addiction are the everyday scenes which the population lives with, and many have expressed it as a problem in all the surveyed blocks. As the majority of the young do not have money to buy drugs, they resort to begging, taking the right to the public space. This represents a huge threat above all for children and women.

The local government is unable to gather enough funds, through taxation, nor generate investment, which is desperately needed in order to revamp the ailing infrastructure, create jobs, or offer education programs as well as alternatives to promote a social life.

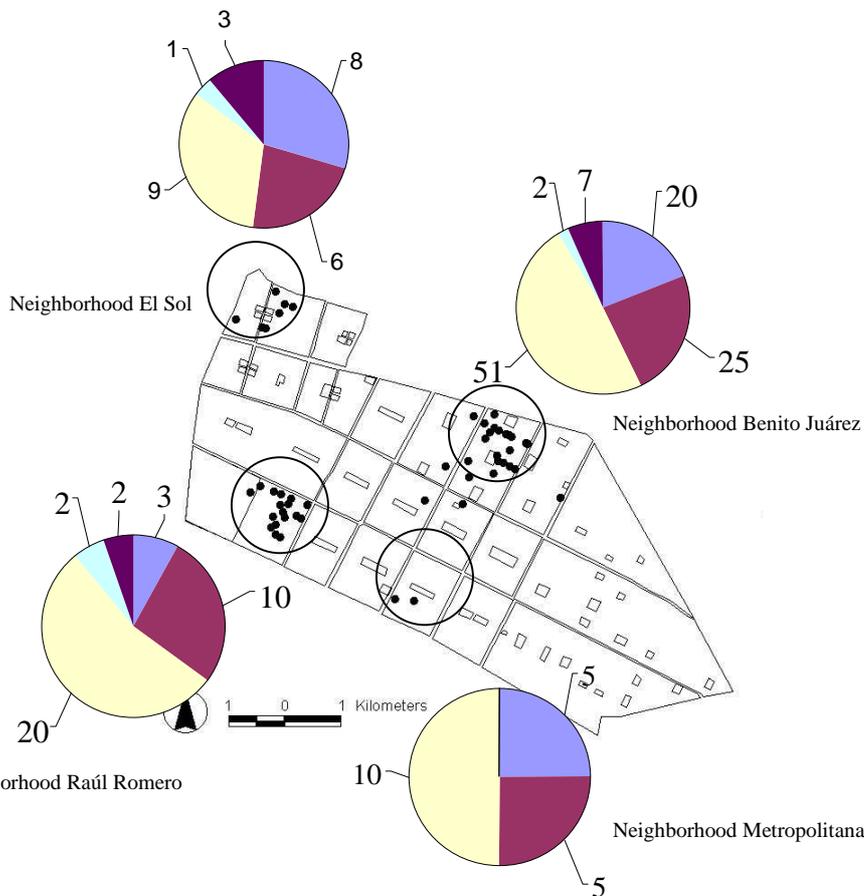


### Legend

- Infrastructure
- Public services
- Public insecurity
- Unemployment
- Others

#### 3.4.11

Problematic perceived by the population in Ciudad Nezahualcóyotl in number of opinions (total amount)



#### 3.4.12

Problematic perceived by the population in Ciudad Nezahualcóyotl in number of opinions and according to surveyed blocks

### **3.5 Empirical indicators of consolidation and differentiation: limits and potentials**

The question needs to be asked whether the “indicators” of consolidation and differentiation, serve as a reliable source to support a potential housing policy? There are many reasons to believe it so.

In many cultures the architecture of the housing is a direct reflection of the customs and the local life of the inhabitants. In spite of this, -and due to the fact that informal urbanization phenomenon stems from a strong economical instability, the physical environmental aspects have been historically slowly, leaving aside from the informal settlements discussion.

It should be recognized, that along with the multiple attempts to improve the life of inhabitants in informal settlements, architects and urban planners have made many attempts to influence the process and buildings characteristics of such informally built houses, however without success.

The fact that the building process has remained practically without external influences, opens the possibility of considering the building itself as a powerful source of information to explain the spontaneous growth and change of informal settlements. Naturally, the gained picture on the physical consolidation of a settlement should be also complemented with, as detailed as possible, information on their inhabitants and the activities which take place on the city.

If needs to be remembered that Informal settlements are normally not considered on official records of any kind -namely city maps, cataster or census tracks-, the observation of the physical environment of informal settlements is not just a alternative or complementary information source, but a need in itself.

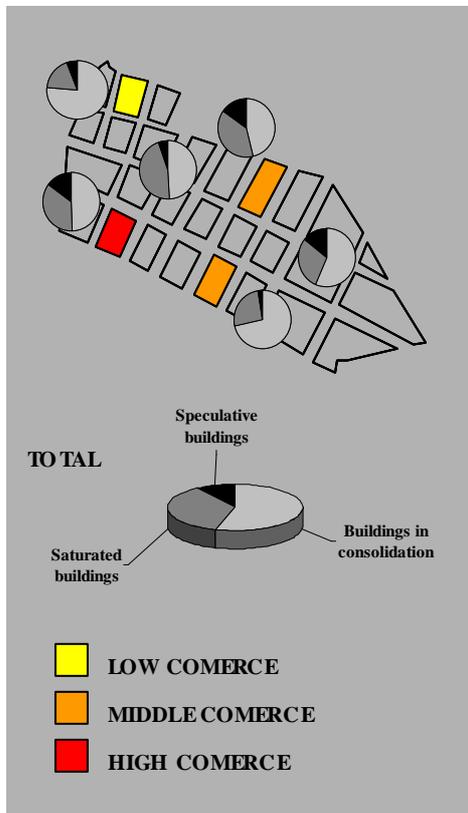
3.5.1

EMPIRICAL CONSOLIDATION INDICATORS IN CIUDAD NEZAHUALCÓYOTL

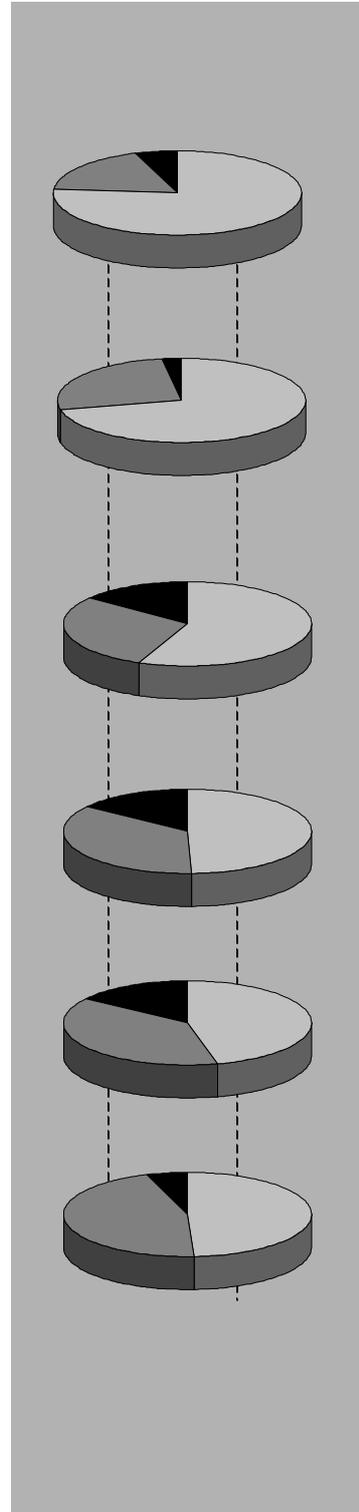
BUILDING  
TYPOLOGY



DIFFERENTIATION  
OF AREAS



CONSOLIDATION  
INDICATOR



## FIGURES REFERENCES

- 3.4.1 Own drawing based on field study. The information for 1981 was taken from:  
Aguilar Martínez, Guillermo and Ekkehard Buchhofer (1983): “Nezahualcóyotl: Planeación Urbana y ordenación espacial en la periferia de la Ciudad de México”. En: *Boletín del Instituto de Geografía. Universidad Nacional Autónoma de México*. Num. 13/1983. P. 148.
- 3.4.2 Own drawing based on field study. The information for 1981 was taken from:  
Aguilar Martínez, Guillermo and Ekkehard Buchhofer (1983): “Nezahualcóyotl: Planeación Urbana y ordenación espacial en la periferia de la Ciudad de México”. En: *Boletín del Instituto de Geografía. Universidad Nacional Autónoma de México*. Num. 13/1983. Pp. 131-173.

All pictures and figures, excluding the figures referred above, are based on field study and own information.

