04 María Auxiliadora
The project area, Maria Auxiliadora

The project area Maria Auxiliadora is located in the centre of District 9, in territorial jurisdiction of Pucara Grande, in the Sivingani zone. Maria Auxiliadora is situated about 6 kilometres from the city of Cochabamba on a northern hillside in an area for agricultural use and cattle raising. Because it is meant for these purposes housing development is still illegal. As the area is a steep slope it is however not suitable to use for agricultural production. The area covers about 16 hectares and the highest point of the area is about 2900 metres above mean sea level. Small villages and agricultural land surround the area. The Municipality of Cochabamba intends to legalize the area for housing.
Background

At the end of 1999 a group of women was spontaneously formed to search for land to construct their own houses. The project started with 60 women, 40 of them did not have a house of their own. They were searching for land in different places in the outskirts of Cochabamba, and finally they found a place, Maria Auxiliadora, situated on a hillside in District 9. The land was bought from the farmer but to develop the area is still illegal as it is meant for agricultural purposes. The group of women had to organize themselves to find land. Land was bought by the group jointly. The president of Maria Auxiliadora, Rose Mary Irusta, was able to get a loan to buy the land. Even though the organization was not seen as a cooperative at that time they had many thoughts similar to those of a cooperative. Today the organization of the people in Maria Auxiliadora is based on the Uruguayan concept of cooperative housing. But Maria Auxiliadora cannot be seen as a proper cooperative in line with the Uruguayan concept, as the group of people had already started to organize themselves before the area was thought as a cooperative.

The women needed a spatial plan for how to develop the area and searched for assistance. The final plan, a grid plan, was drawn by a surveyor. The existing plan does not consider the steep and rocky terrain. This causes many problems, for example roads are too steep for an ordinary car. The nearest surroundings are not yet developed which could cause difficulties, for example with infrastructure. The area is not developed in stages, thus houses are scattered over the whole area without being provided with a functional infrastructure. For instance, some people do not even have a road to their house. The plan is divided into plots, between
200 m² and 300 m² in size. A plot of 200 m² costs 600 US dollars and one of 300 m², located in a corner, costs 900 US dollars. The first house was built in August 2000. Money was obtained from a system called *Pasañacu* (see page 37).

The women searched for assistance to get help to build their houses and through contacts with PROCASHA the idea of making the community a cooperative was born. People from PROCASHA and the president of Maria Auxiliadora visited Uruguay to investigate if cooperative housing could be used in Maria Auxiliadora and Bolivia. Back in Bolivia, the other members was informed and they all decided to work together as a cooperative. The intention was that PROCASHA should help the people in the area to create a cooperative organization. At this time another NGO, Pro Habitat, also got involved with the aim to train the people in how to build their houses.

The community consists of 350 families. The last Sunday of every month a meeting with all members of the community takes place in Maria Auxiladora under the big trees next to the football field because they do not have a community hall. People from involved organizations come to these meetings to inform and investigate how the project proceeds. Other Sundays the first group of people going to construct their houses takes part in workshops held by PROCASHA and Pro Habitat where they are taught about building and cooperative housing. These meetings take place in the living room of one inhabitant.

People start to build on their plot when they receive material and permission from the cooperative, thus the building process has already started in different places of the area. In December 2003, 50 houses had been built in the area and many were under construction.
The existing plan

To Carretera Santivanes

Rio Sivingani

Carretera Sivingani
Involved organizations

**PROCASHA** La Fundación de Promoción para en Cambio Socio Habitacional. Founded in August 2001. Formed through a relation with the Swedish Cooperative Center (SCC) and la Federación Uruguaya de Vivienda por Ayudua Mutua (FUCVAM). The vision of PROCASHA is to cooperate with all forms that allow improvement of the quality of life in general that works for sustainability and improvement of the living in particular. Involved in the project in Maria Auxiliadora since 2003.

**Pro Habitat**
Founded in 1993. Specialised in housing improvement and the elimination of the vinchuca beetle causing the Chagas disease in rural communities. The objective of Pro Habitat is to develop community participation through training of people, so low-income groups can participate actively in the process of population settlement. Involved in the project since 2003.

**CIPRODEC**, Centro de Investigacion Promocion y Desarollo de la Ciudad.
CIPRODEC’s task in Maria Auxiliadora is to co-ordinate and direct the work in the topic of drinkable water. Involved in the project since 2003.

**FUCVAM**, Federacion Uruguaya de Cooperativas de Vivienda por Ayuda Mutua. Founded in 1970. The most active social organization in Uruguay working with popular housing problem and urban development. Has a great experience of cooperative housing. Acts as a source of knowledge and experience for PROCASHA.
Financing
The houses are financed through a system called Pasañacu. It is a saving system where the people give a sum of money to a fund each week. The income of the family decides how much money each family is requested to give to the fund. In Maria Auxiliadora there are two funds, one for those who just can put a small amount of money into the fund and one for those who can afford to put more money. At the end of each month one family from each fund, ready to start building, receives the collected money in form of building material. This system has been used to finance the building of houses in the community during the last four years.²

Population
Today 50 families live in Maria Auxiliadora. In the future about 350 families will be living in the area. Each family consists of approximately 5 members, husband, wife and children. Today 51 percent of the population are men and 49 percent are women. Around 32 percent consists of children between 7 and 18 years old and 26 percent of the population is between 19 and 30 years. Many of the children begin to work in early age to help their family economically instead of going to school. Most of the inhabitants survive on small resources, people who have a job work, for example, as shopkeepers, bricklayers or drivers. Many of the women are housewives and it is often the women that take initiative to build a house for the family. The official language is Spanish, but a lot of the people also speak Quechua and some even Aymara. 72 percent of the population are Catholics.³

Roads
From Maria Auxiliadora leads a road, Carretera Sivingani, made of gravel which makes the environment dusty. The road is in poor condition with no pavement for pedestrians. Carretera Sivingani ends up on Carretera Santivañes which leads to the city of Cochabamba. Carretera Santivañes is paved and the road invites to high speeds, this causes conflicts between vehicles and pedestrians as there are no pavements or bicycle lanes.

The street network in Maria Auxiliadora is not completed and it lacks connections both within the area and to the surrounding areas. The streets are in bad condition and there is no clearly defined road hierarchy in the area. The streets are very steep and it is impossible to go by car
to many places. The streets are made of gravel, which makes the area dusty. There are no sidewalks, thus pedestrians have to share the street with vehicles.

To cross Rio Sivingani there is a bridge made of an old car lying upside down, but the bridge is only for pedestrians. Vehicles have to drive across the river bed, which is only filled with water during the rainy season.

Not many families in the community have a car but the number of car owners is expected to increase. Visitors have to park in the streets, there are no public parking places in the area. The quality of the public street lighting is poor. Only Carretera Santivañes and a small part along Carretera Sivingani have public street lighting.
Existing road network

December 2003
Public transports

From Maria Auxiliadora the city of Cochabamba can be reached through various means of public transport. There are three different public transport systems, *Trufís*, *Taxitrufís* and *Micros*.

The *Trufís* are small buses with approximately 20 seats. The *Taxitrufís* are like normal taxis, but has a set route. The *Micros* are minibuses, which also have a set route. Bus stops and schedules do not exist. The problem with the service is related to the irregular schedules set by the drivers, which have serious consequences for children during the school year. An advantage is the possibility to stop or board anywhere along the set route. A disadvantage is that the public transport indirectly causes traffic problems and accidents due to the absence of special bus stops. The closest public transport line to the city goes from Carretera Santivañes that is one kilometre walk from the area. Only on Sundays there is public transport, *Taxitrufís*, to the area because of the meetings in the area.
Public transports

Energy supply
The availability of electric power in the area is good thanks to the program of rural electrification. Gas cookers are used for cooking in the houses.

The telephone network in the area is deficient. Only 7% of the inhabitants have a private telephone but there are two public telephones in the area. It is difficult to get a better telephone circuit to the area because of the distance and the costs.\(^4\)

Water
The most serious problem in the area is the lack of access to clean water facilities. In Cochabamba there is a general lack of water, which is a huge problem. The inhabitants in Maria Auxiliadora obtain water from a truck on a weekly basis and store the water in barrels.
Some inhabitants have an underground tank where they store the water. A barrel of water costs three Bolivianos. The water easily gets contaminated in the barrels from dust blowing around containing several particles. The water, obtained from the barrels and the underground tanks, is used to wash clothes and clean kitchen utensils. The people buy drinkable water in bottles. At the moment CIPRODEC is working in the area to construct a well and a tank, which will supply the whole area with water.

Sewerage

There is no sewerage network in the area. Due to the distance to the city area, it is very expensive to get a drainpipe out to the area. Some families have a septic tank. The supply of sanitary service is not enough. Not many people have access to toilets which force them to ”go outdoors”. The lack of sewerage is an important cause of environmental deterioration especially with regard to groundwater and air pollution and thus a health problem.

There is no storm water drainage system in the area which causes problems during the rainy season. Heavy rainfall creates water floods down the hill destroying buildings and roads.
Refuse
There is no refuse collection in the area. The inhabitants in Maria Auxiliadora cannot afford refuse collection today. People compost their organic garbage and throw the rest into the river or burn it. Presence of litter on the ground may have a negative effect on the health of the inhabitants and may cause environmental deterioration. Since it is often very hot, litter gets rotten and smells nasty.

Services
There are two small shops in the area. The supply is limited, they sell for example bread, lemonade and sweets. There is no market for food or clothes so the inhabitants have to go to the city or to Cancha to do the shopping. Cancha is one of Latin Americas biggest markets, situated in the city of Cochabamba, with an unlimited supply.

There is no day care centre in the area. Many of the women are house wives or they bring their children with them when working, often when selling goods at Cancha.

Close to Maria Auxiliadora there is a school under construction. The school is for all children in Sivingani for the first three years in elementary school. The building has three classrooms, though it is not yet completed it is in use. The illiteracy rate is high due to poor school facilities in District 9 and because many children begin to work in early age to help their family economically instead of going to school. 16 percent of the population over 15 years cannot read or write. 30 percent of girls are illiterate versus 6 percent of boys.
There is one church under construction, about one kilometre from Maria Auxiliadora. Besides its ordinary activities, the church can be used for public meetings for the inhabitants in Sivingani. Today the inhabitants go to small chapels in the surroundings. There is no health centre in Maria Auxiliadora. The inhabitants have to go to a health centre situated far from the area or to the hospital in the city of Cochabamba. In District 9 there are 5-6 local health centres, *Postas sanitarias*, and 2-3 small hospitals, *Centro de salud*.

In Bolivia, so called *Chicherias* are common. In them *chicha*, a kind of liquor made of maize, is served. By tradition the *Chicherias* are important places for social life. The *Chicherias* announce when a new round of *chicha* is completed and ready to be served by hanging out a white flag. But there are problems with the *Chicherias*, like noise caused by loud music during the nights and people often getting drunk. Close to Maria Auxiliadora there are several *Chicherias*. 
View from Maria Auxiliadora.
Open spaces and areas for recreation

Vegetation gives shadow and coolness and offers a good place for rest. It is also important because it binds dust and various kinds of pollution. In the spatial plan for Maria Auxiliadora there are places set aside for recreation, but the terrain is very steep and vegetation limited. Due to the absence of regular rain the area is mostly very dry and it is difficult for vegetation to grow. Jacaranda, Molle Molle and Eucalyptus are examples of trees growing in the area. Most of the vegetation, trees and bushes, are close to Rio Sivingani. The river is only flooded during the rainy season, from December to February. There are lots of garbage in the river which make the area dirty and unpleasant. The only open public space is a football field situated north of the river. Here the children play and under the trees the inhabitants have meetings and festivities. There is no bridge over the river from the settlement to the football field.
Open spaces

N↓

Rio Sivingani
Football field

Carretera Sivingani
Buildings

The buildings in Maria Auxiliadora reflect the economic condition of the people living in the area. Houses are small, most of them consist of two to three rooms, and are often situated at the back of the plot with a patio in the front of the house. Most of the buildings have one floor but there are houses with two floors. The most common building materials are burnt bricks and adobe. Adobe bricks are made of hay, local clay and water. Bricks are just dried in the sun and thus a cheap building material. A widespread parasitic illness called Chaga, is common in rural areas. The virus comes from a beetle Vinchuca, which lives in adobe. But used in the right way the adobe can be a proper building material.\(^8\) Concrete is another building material represented in the area. The roofs are usually made of corrugated iron sheet often with big stones placed on top of the sheets to make them stay in place.

The majority of the houses are built by a bricklayer. The plots are usually regularly shaped, but there are also some plots with a triangular shape and with acute angles.

In Cochabamba it is common with walls that surround the plots. The walls, not the houses, are the spatial elements of the streets. They are often about two metres high and made of brick, concrete or adobe. In the city people, who can afford, also use iron fences. Those are more expensive than walls and are therefore not common in poor areas. The walls prevent people in the street to view into the house and from intruders. For extra security broken glass or barb wire are placed on the top of the wall. In Maria Auxiliadora some of the houses have walls around the whole plot.
Existing buildings and buildings under construction

December 2003

Legend:
- Existing buildings
- Buildings under construction

North direction
Result of the survey

To get information about what the people like and miss in their area we carried out a small survey. We interviewed about 20 people, both men and women, today living in Maria Auxiliadora. Through visiting their houses, we got a lot of information about the area and a good insight in daily life as in the same time it helped us to create contact with the inhabitants. The people we interviewed are between 23 and 50 years old and most of the families had five members. The majority of the women are housewives. The amount the inhabitants earn in a week varied from 20 to 500 Bolivianos. Most of the inhabitants have been living in the area between two to three years and they feel safe in the neighbourhood.

The houses are small, two rooms are most common and usually there is a separate room for cooking, sometimes just in form of a small shelter in the patio. The houses are built in phases starting with a large room, used for several purposes, then a kitchen and after that the houses might be completed with more rooms. The main room is the place where the family spend most of their time together. There is usually no clear distinction between different functions of the rooms. The spaces become multifunctional. The supply of sanitary service is limited, very few houses have a toilet, and this force the inhabitants to ”go outdoors”. Some families have a septic tank. Most of the families think that they have enough space on the plot. What the families want to improve in their houses are to get more rooms, watertap and a toilet.

The majority of the houses in the area are built by bricklayers and with help from the family. The most difficult part to build is the foundation because of the steep and rocky terrain. The houses are usually built of burnt bricks, the floor of cement and the roof is made of corrugated iron sheets and often just fastened with big stones on top of the sheets.

The patio is the central space of the house. Washing clothes, resting, cultivating and keeping animals are activities that people do outside, in the patio. People may have dogs, hens, rabbits and pigs kept in the patio.

The only technical service in Maria Auxiliadora is electricity. The inhabitants think it is important to improve or to get in the area the following services: public transport to the area, water and sewerage, parks, health centre, public lighting, day care centre. They would also like to have a market square, as well as the possibility to have telephone in the house and playgrounds for the children. People consider public transport to be the first thing that must be improved. On
Sundays the inhabitants in the cooperative work together to construct houses and build roads as well as clear plots where new houses are to be built. Nearly everyone wants to be a member in the cooperative.

Inhabitants in Maria Auxiliadora fill in questionnaires.
Typical housetypes in Maria Auxiliadora
05 Planning principles
Planning principles

An overall proposal has been developed for the whole area jointly. It contains the overall features for the development of the project area. It is based on the identified physical constrains and the conditions of the area. The resources, needs and potentials have been taken into consideration. This is described under preconditions, out of these we have composed the overall proposal. With this as a base we have individually developed proposals of the area in more detail.

General aspects

Lack of space for new housing is a great problem in the fast growing city of Cochabamba. The idea of building hillsides on land not suitable for agriculture is a new way of finding land for housing. This is welcomed both by the municipality of Cochabamba and the Bolivian government. The new suggestion of land use can be used in other similar places and work as an alternative in the housing policy.

The project area Maria Auxiliadora is situated on a hillside in an agricultural area but on land not suitable for agriculture because of the steep and rocky terrain. The people in Maria Auxiliadora bought the land from the landowner but it is important to remember that the area is still situated on land for agricultural use. To legalize the urbanisation the Masterplan for Cochabamba has to be changed. When the plan will be changed District 9 has to be seen as a part of the city, some parts of the area have to be seen as rural and some as urbanised areas.¹ To improve the housing situation for the illegal settlements it is important that the area will be legalized for housing. We assume in our project that the area will be legalized and we make proposals for how the housing situation for the inhabitants in the area can be improved.
Cooperative housing

Preconditions
The project in Maria Auxiliadora is a pilot project of cooperative housing in Bolivia which in early stages could be a problem due to lack of knowledge and experience. But the area contains recourses and potentials that could be developed through cooperative means. There is also a large interest in the new cooperative both from the people in the community, different organizations, the municipality and from the government. Many actors offer great support from a lot of branches but can be an obstacle if they do not collaborate.

The cooperative housing project in Maria Auxiliadora was not thought as a cooperative from the beginning. It has deficiencies from a cooperative way of thinking and can therefore not be seen as a total cooperative, in line with the Uruguayan model, though it is important to start the work with a total cooperative from the beginning. But from the beginning the community Maria Auxiliadora had cooperative thoughts in form of good solidarity and a strong will to improve their living conditions and these are important to take care of and develop.

The sometimes slow process by the government could slow down the process and make the cooperative system ineffective. It is also important to mention that the country has a strong “tradition” of changing government and there is sometimes tendency of disturbances.

Working together in a cooperative can be a cheaper way of building though they can get better price on material and help each other in the building process.

Proposal
The proposals consider spatial planning for cooperative housing and cooperative thinking is used as far as possible. The proposals suggest spatial elements that promote cooperative housing, such as a community hall for meetings, new types of houses, day care centres for the children and places for growing vegetables.

An area for cultivation is suggested on flat land suitable for this purpose. The intention is that the inhabitants in the cooperative should have the possibility to cultivate for their own needs.
Develop housing
Preconditions

Detached houses are the most common type used in low-income housing areas in Bolivia. This form of housing is more space-demanding than any other form of housing, but people have the possibility to easily extend the house over time. Other types of houses are not frequently used and have no tradition among the Bolivians.

The steep topography in the area affects the cost of the development negatively. The steepness of slope also has an impact on the environment, as well as the safety of the inhabitants. Building on steep slopes with poor foundations may result in the ground starting to slide, damaging the natural environment and the buildings. But to build on the hillsides gives the possibility for each building to get a great view over the valley and the surroundings.

The climate is most of the time warm during the days. During the winter the temperature falls at night, sometimes below 0°C.
Proposal

New types of houses like terrace houses, semi-detached houses and houses situated in groups are suggested in Maria Auxiliadora. New types of houses can provide the area with more green areas, spaces for playgrounds and meetings. New types of houses can strengthen the cooperative concept, but living close to neighbours is new for the Bolivians and it is difficult to foresee the exact consequences of this.

The slopes in some parts are too steep to be developed for housing. We have tried to keep the buildings in areas with an inclination of 1:8 or flatter.

If high walls and fences are avoided it is easier to exercise natural surveillance and easier for the inhabitants to join the public life. We suggest that the houses should be connected to the streets by gardens or just low walls. A lot of attentions also need to be paid on the design of the private space between houses and streets.

Adobe can be seen as a very good material if it is used in the right way. Adobe keeps the heat inside during winter and keeps the heat outside during summer. Adobe is a very durable material and cheaper than burnt bricks.²

The city of Cochabamba is situated south from the equator which means that the coldest part in the house will be the south part. To use the passive heat from the sun the houses must be oriented after the sun (see Fig. 1). The houses should have windows facing north to get as much light as possible. We suggest that the houses should have roof overhang to keep the high and warm summer sun from coming into the house, but it will still allow the lower winter sun to enter and give natural heating. Hard surfaces next to the house wall protect the house against rain.³
Infrastructure and service

Preconditions

In Maria Auxiliadora the lack of adequate technical infrastructure and services cause problems for the inhabitants and for the environment. The building process has already started in different places in the area which causes problems though infrastructure is not completed. The steep topography will affect the cost of the development. The steepness of slope also has an impact on the environment, as well as the safety of the inhabitants. The streets in the area therefore need to follow the slopes as far as possible.

Low-income areas often have problem with erosion. Heavy rainfalls and lack of drainage system combined with too many hard surfaces preventing the water to infiltrate the ground, can lead to the top soil being washed away and roads and houses being damaged through landslides. Lack of drainage can also result in large puddles of water and muddy areas. The steep roads, some of them ending up in a plot can also be considered as a problem in the rainy season when all water from the top of the hill ends up in the plots in the end of the road.

The meander of Rio Sivingani expands during the rainy season and this can be a problem in the future for Carretera Sivingani and buildings situated close to the river if measures are not taken. When the river is filled with water it could be a problem for vehicles to get to the area, as these have to drive through the river bed. There is neither a bridge over the river from the settlement to the football field.

Since the new housing settlement is planned as a low-income area, car ownership rate will probably be quite low. Because of the distance to commercial services and the city of Cochabamba, the inhabitants in Maria Auxiliadora need some kind of transportation to reach these areas.
Proposal

Infrastructure

Aspects we have considered when planning the roads are safety, accessibility, adjustments to the steepness of slopes and amount of hard surfaces. The problem with limited infrastructure that can be seen in the area today could be solved if the area is developed in different stages. It is also important that the area has connecting links with the surroundings.

To increase traffic safety along Carretera Sivingani, a pavement for pedestrians are suggested. We propose that Carretera Sivingani is paved which will increase safety and also reduce the dust. Along Carretera Sivingani trees are suggested to get shadow to the pavement. Parking is suggested along one side of Carretera Sivingani. All roads, which lack lighting today, are suggested to get street lighting. We also propose that Carretera Santivañes will be improved by a pavement to improve safety for the pedestrians.

The people need to have good access to public transportation from their homes. To obtain this we suggest a public transport line to the area. When Maria Auxiliadora and surrounding areas are developed the basis for public transport will be enough for a new line of public transport.
In an early stage of the work we made two different road proposals for how to adjust a road in steep terrain to follow the slopes. The first proposal consists of a serpentine road that is following the slopes with as small inclination as possible. The critical points in this proposal are in the curves where the inclination is supposed to be not more than 6-8 percent. The winding of the serpentine road keeps the speeds of vehicles low. The road has the same standard from the bottom of the hill to the top and all plots have the same standard of the road. But it is a long distance for those who live on the top of the hill. Therefore it is important to create shortcuts for pedestrians. Another problem in this proposal is the difficulty to connect the road to the surrounding areas. Instead of letting the drainage system follow the road it is to prefer to let the storm water run down the hill in a separate drainage system. This road proposal makes the area more difficult to develop in stages.

The second proposal consists of one main road with secondary roads that are following the slopes. It is important to have an inclination that is not more than 6-8 percent. This can be more difficult to achieve in this proposal though the main road is less winding than the first proposal which is following the slopes more closely. In this proposal the main road has a superior standard and the secondary roads a more simple standard. A disadvantage is that the main road invites to higher speeds. The secondary roads make it easy to connect the area to the surrounding areas and to
expand the area. The drainage system follows the main road. It also has advantages when building in stages. We consider that in Maria Auxiliadora this proposal has most benefits and have therefore chosen to develop this proposal in the chapter Detailed proposals.

**Water and Sewerage**

We assume that access to clean water will be carried out through the solution from CIPRODEC. This consists of a well and its storage in a tank. The well will be drilled to approximately 80 metres depth. The water will be pumped to a semi-buried tank. Above the tank a box with chemicals for cleaning the water is placed. Pipes will be placed in the roads and give each house water through a tap. There will be a meter in each house that marks the consumption and then the inhabitant will pay for their consumption to the cooperative.¹

We propose that the new development will be equipped with on-site sanitation instead of waterborne sewerage. This system is much cheaper and also has environmental advantages, if right used, because there is no need to dig up the ground and lay down pipes. Urine and faeces can be used as fertiliser in urban agriculture.

**Storm water**

The problem with the storm water, mainly during the rainy season, is suggested to be solved by collecting the water in open drains. The storm water is lead, after being cleaned, to Rio Sivingani, in the northern part of the area. It is preferable that the drainage system consists of open drains, to minimise the risk of the drains getting clogged.

**Refuse collection**

To improve waste collection and disposal it is suggested that there are places set aside in suitable places for refuse collection. Materials which can be composed should be separated and after spread on land for agricultural use. In public spaces dustbins are proposed to reduce the litter on the ground and through this achieve a more pleasant environment.
**Service**

Since the lack of health centres in the area is a problem we suggest that space is set aside for a local health centre, *Posta Sanitaria*, in Maria Auxiliadora. Space is also set aside for day care centres in the area where the inhabitants can take care of the children in a cooperative form.

Through a development of the area the number of inhabitants increases which in turn leads to a better basis for all kinds of infrastructure and service. To create opportunities for business and service we suggest areas for business activities, for example workshops for repairments of all kinds. Trades can also be allowed in the ground floor of the new dwellings to get a mixture of use. A central market place for food and handicrafts is suggested in the area. The market place can work as a central meeting place for the people. By creating new possibilities for this kind of service, public life in the area can be strengthen.
Open spaces and areas for recreation

Preconditions
Today the only existing area for recreation in the area is a football field, a very important meeting place both for young people and for adults. It is important for the inhabitants with accessible recreation areas but the steep and rocky terrain can be an obstacle when arranging attractive green areas.

Proposal
To increase the access for the inhabitants to parks and areas for recreation the number of sports and recreation areas are increased. These areas will include fields for sport activities, playgrounds for children, parks, natural green areas and footpaths for walking. Most of the tree vegetation in the area is suggested to be preserved. Tree planted areas and recreation areas are also important contrast to an environment like this, that most of the time is dry, dusty and sunny. It is important to use species of trees and bushes that can manage the special climate when developing the green areas. Jacaranda, Molle Molle and Eucalyptus are examples of trees that manage the climate.