Qualities in Gokha Sahi and Mangala Sahi, Puri
October 2010
Location in Puri

Short facts

**Gokha Sahi**
- Total population 1310
- Target population 595 (111 households)
- Average household income 225000-265000Rs
- High level of literacy
- No individual water connections
- 20 hand pumps
- 5 public taps
- No sewerage connection
- 55 households have electricity

**Mangala**
- Total population 134
- Target population 225 (37 households)
- Average household income 35000-50000Rs
- High level of literacy
- No individual water connections
- 5 hand pumps
- 3 public taps
- No sewerage connection
- 20 household have electricity

Source: DPR, Puri Municipality
Structure

General

Both Gokha Sahi and Mangala Sahi are located about 3 km from town centre along the Mitlani Road (Puri-Brahmagiri National Highway Road). Even though it’s meant to be a thoroughfare, the traffic does not seem to be very heavy. The built-up area is mainly on the south side of the road. There is also some housing on the north side but otherwise it is mostly green, open space. This is also more or less the city boundary.

Two of the five important holy tanks of Puri are located close to the area. The Narendra Chandan tank and temple is located just east of Mangala Sahi and Markandeya tank just south of Gokha Sahi. The Jagannath temple also has some major buildings located in the area.

Gokha Sahi has a total population of ca 1400 inhabitants. The number of beneficiaries is 111 households (595 people). Mangala Sahi is slightly smaller with ca 1100 inhabitants. Here the number of beneficiaries is 40 (225 people) (source: DPR Puri).

Gokha Sahi and Mangala Sahi have both been populated for between 3-6 generations. Traditionally, most of the men in the areas have been fishermen. This is however slowly changing. The occupied land is owned by the beneficiaries while much of the surrounding open space is owned by the Municipality.
Gokha Sahi

The main spine of the Gokha Sahi is the concrete street that connects the Puri-Brahmagiri Road with the area around the Markandeya tank. The street is in average 2.5 m wide and along the sides there is a variety of houses that add to the rather vibrant character of the street. A slightly narrower street - together with some minor pathways - leads from the main street to the rest of the area. Most of the houses are concentrated close these two streets. The area is rather dense with few open spaces within the built-up area. Gokha is however surrounded by a lake to the east and open space/temple area to the west. The lake is a quality for the area not only for washing purposes, but also for contemplation.

One of the major impressions is that Gokha has a lot of urban qualities. The streets with small shops, nice pucca houses and also a small temple give a sense of being an integrated part of Puri, although it is located on the outskirts. The shops provide a good commercial service within the neighbourhood and it is therefore important to accommodate these in the future area layout.

Between many of the houses there are semi-private open spaces. Some of them are in the form of a cul-de-sac, others are more like an open square. Because of the high density, especially in the centre of the area, the new houses will have very little private outdoor area. Therefore, it is important to preserve these semi-private spaces and if possible also to create new ones.
Mangala Sahi

Compared to Gokha Sahi, Mangala Sahi has a less urban character. The area consists of a number of separated clusters of houses that are located just off the Mitlani Road. In between those clusters there are some pucca houses that have a larger scale than the kutcha houses. The area is under development and new houses are emerging on both sides of the road. Because of the rather low density there are future possibilities for densification of the area. The layout should take this into consideration and facilitate for later developments. This is important both in placing the houses and how the infrastructure (water and sewerage) is carried out.

Today, there is a lack of good connections between the different parts of Mangala Sahi. The future layout should therefore include creating new internal roads and pathways.

The big trees within Mangala Sahi offers very much sought after shadow between the houses. Many of the areas informal meeting places are under these trees. The layout should take the position of the trees into consideration so as many as possible could be preserved.

In the eastern part of Mangala Sahi, there is an open place with a small shop that has a potential to become a good public space. The new layout of the area should enforce this, making it easier to access the place. There is a need for semi-private spaces close to the house since the private space inside the homes is limited. Semi-private areas provide a space to carry out tasks like washing and bathing as well as to socialize and interact.
Buildings

General

The upgrading project in Gokha Sahi and Mangala Sahi means that most of the existing kutcha houses will be demolished and replaced with new houses. The standard of the kutcha houses varies and some are in very bad condition. Many of the structures however, has been there for quite a long time which means that the inhabitants have looked after it, made improvements to it but also put their own touch to it. Many details are there for a certain reason, practical or maybe religious. These details should be seen as an asset and if possible be brought in to the new houses.

The layout of the house should reflect the daily life of the inhabitants. The lifestyle that the house demands cannot be more expensive or time consuming than they live today. It is important that the habitants are involved in the process to settle the area layout and to decide the final design of the house types e.g. where the doors, ventilation and windows should be placed.

Besides creating a more durable structure, the redevelopment is also a possibility to add some qualities to the houses e.g. details that will facilitate the daily life and also to create an improved indoor climate.

Outdoor

Most kutcha houses have a veranda on the front of the building. This serves as an extension of the indoor area and many of the chores can be done here. It also serves as a meeting place and a possibility, especially for women, to interact with the neighbours. Many households in the slums cook with wood or kerosene. It is therefore better to cook outside to avoid pollution of the air inside the house. The floor level of the houses are usually about 1 m above ground level which means that both the veranda and the actual house will be protected from flooding. All this positive aspects makes it obvious that all new houses should also be provided with a veranda.

The verandas are usually shaded by the thatched roof that covers most of the kutcha houses. The advantage of thatched roofs is that it works as a good insulator which means that it will ensure that the building will be cool in warm climate. The negative aspect is that it has a relatively high maintenance cost since it has to be redone every third year. The pros and cons of thatched roofs should however be considered when constructing new houses. It’s not necessarily better to exchange it for a concrete slab.

Outdoor cooking

The veranda is an important part of the house
**Indoor**

The ventilation of the new houses has to be thoroughly thought through. The best way to ensure good ventilation is to provide the houses with ventilators so the air can run effectively through the house. A higher ceiling will also increase the air movements inside the rooms. In a G+1 structure, the open staircase, preferable in steel, can have a small chimney effect on the air.

The new houses will have a WC and a wash room. These units should be kept away from the kitchen for hygienic reason. It is also a good idea to have their entrance from the outside as this makes them easier to ventilate. It hinders the bad air to enter the room.

**Identity**

The identity of an area is primary a combined effect of the different people living there. Their life aspirations and dreams shape the area. In a redevelopment project like the ones in Puri, the core values of an area must not be neglected. You should still be able to recognise your area and your neighbours. It is often the small details that jointly add up to the local identity.

In both Gokha Sahi and Mangala Sahi there are for example a lot of religious elements like alters and decorations both inside the houses and on the façade. This indicates what is important to the inhabitants. Also other sort of decorative wall paintings and nicely carved wooden doors is commonly found in the areas. If the inhabitants are accurately involved in the redevelopment process, these details will most positively be an important part of the new houses as well.
Layout proposals
House type proposals
Design principles for layout of house plans
house type 1a
1:50

4 DOORS
D1 0.8 M
D2 0.7 M
D3 0.6 M

3 WINDOWS 1*1.2

PLAN

FRONT ELEVATION

SECTION Aa
house type 1b
1:50

5 DOORS
D1 0.8 M
D2 0.7 M
D3 0.6 M

3 WINDOWS 1*1.2

PLAN

FRONT ELEVATION

SECTION Aa
house type 2a
1:50

3 DOORS
D1 0.8 M
D2 0.7 M
D3 0.6 M

3 WINDOWS 1*1.2

PLAN G

PLAN G+1

FRONT ELEVATION

SECTION Aa
house type 2B 1
1:50

3 DOORS
2 doors  D1  0.8 M
1 door    D2  0.6 M

3 WINDOWS  1*1.2

FRONT ELEVATION

PLAN ILLUSTRATION

SECTION

PLAN G+1

PLAN G