Pentha Kota fishing community

Puri, Orissa State, India

Participatory Assessment



January 2010

Urban and Development Resource Centre (UDRC)

SEEDS India

Centre for Development and Emergency Practice (CENDEP), Oxford Brookes University

Summary

In January 2010, a team of 11 students from the Centre for Development and Emergency Practice (CENDEP) at Oxford Brookes University joined members from the non governmental organisations (NGOs) Urban and Development Resource Centre (UDRC) and SEEDS India to undertake a four day participatory assessment of Pentha Kota in Puri, India, a fishing community of some 5000 households, mostly from Andhra Pradesh, who have lived without tenure on a strip of Puri's beach for about 60 years and who are very likely to be relocated in the medium term.

The assessment had two objectives. The first was for team members to become familiar with and apply participatory information gathering techniques. Hence, after several days of orientation, training and familiarisation, teams undertook a variety of participatory exercises that included mapping, transect walks, timelines, focus group discussions, wealth ranking and key informant interviews. Above all, the researchers spent as much time as possible within the community becoming as familiar as they could with Pentha Kota. The results of the exercises were presented back to community members on the final day of the visit.

The second objective was to gather information that could be helpful for Pentha Kota in improving its current state and for its future evolution. To these ends the assessment prioritised three key themes, which form the body of this report. The three key themes and the recommendations under each are:

Strengthen livelihoods

Pentha Kota is a community with potential to achieve stronger livelihoods. However, for this to happen, three major factors need support within the community: livelihood diversification; adaptation and mitigation to climatic and environmental changes; and fairer access to key services associated with land tenure, integration into the surrounding area, and livelihood security. These factors could be supported through the following ways:

- Negotiate with government to ensure equitable land or relocation with beach access and facilities to continue their fishing based livelihood
- Diversify livelihoods opportunities, including exploring opportunities to grow tourism, eg through negotiating tours with hotels
- Focus resources on education with particular focus on vocational and language training, with the end
 result of future diversified livelihoods and improved integration into the wider society
- Provide/improve safety mechanisms for fishermen, e.g. improved life insurance, boat and engine insurance, debt relief
- Use the cyclone shelter to house local community operations, including the fishermen's society, and offer vocational training on fish processing, and other livelihood opportunities such as mechanics or tourism (boat tours, watersports, etc). Daily use of the cyclone shelter can also enhance its potential as a location to disseminate information, from early disaster warnings to market prices for fish
- Language classes in the local dialect (Oria) would help the members of Pentha Kota integrate into the city of Puri and gain access to employment opportunities
- Finally, the potential for further processing of fish within the community, as well as business development strategies, could be a line for further research.

Build strong governance

One of the most pressing concerns, and perhaps the most significant, for this community is land tenure. To acquire land tenure and security, and thus reduce the vulnerability of the community, they need to have a powerful case that can be used in negotiations with government. This and other governance related challenges and threats can be addressed through the following actions:

Mobilisation of the citizenship. This can happen if there is horizontal learning across the different
groups through their leaders, and if the existing organisations working in the community cooperate
and continue to empower those they represent. The horizontal learning of organisations such as the

- slum dwellers organisation, Mahila Milan and UDRC to federate should also be utilised as an opportunity
- Reduction in the term-time of the political leaders to 2-3 years
- Increase in the strength of the nominations that challenge deeply entrenched and polarised leadership
- Increase in the representation of women facilitated by Mahila Milan, without unduly challenging the normative frameworks and traditional roles of men and women.

Improve the physical environment

While in the longer term the Pentha Kota community is almost certain to be relocated, which provides opportunities as well as challenges concerning land usage and construction, there are also some pressing concerns and opportunities. The recommendations concerning improvement of the physical environment with immediate effect, and extending to the relocation time, are as follows:

- Improving sanitary practices, including the improvement and increase in number of well built toilet complexes on legal land, affordable for use by community members, which can be made possible if they are designed constructed, managed and maintained by community committees with women leadership
- Undertaking a survey of the most vulnerable shelters, from the point of view of possible storm surge, cyclone and fire risk. The survey would indicate places of higher risk, on which preparedness plans could be focussed, e.g. for evacuation, as well as low cost retrofitting
- A relocation to land close enough to the community's current fishing sites, on good quality land where land tenure is clear and is within the ownership of community members
- Promotion of risk reduction technologies in shelter construction while also ensuring that shelters are low cost, use local materials, are dependent on local technologies, and are climatologically comfortable
- Current use of space by the community to provide the basis for a design of the new site that takes into account the needs and culture of the community
- To facilitate the last point, a community led survey of Pentha Kota's current layout, including the relative autonomy of its some 20 'inner-settlements' could be undertaken and used for planning the new settlement. Provision of fishing activity space will also be a critical requirement. This includes space for drying fish and for repairing nets
- Access to housing credit for marginal fisherfolk.

Contents

Research approach	1
Pentha Kota fishing community: reflection of the region's urban challenges	3
1. Livelihoods	5
2. Governance	8
3. Physical environment	11

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We are also grateful to the staff and students of KIIT University for their hosting of a joint lessons learning workshop concerning vulnerability with staff and students. Our thanks also to Mr. Khetra Mohan Khuntia and the team at the NGO Odissi for their help in organising community interactions.

The authors recognise that this report represents a small snapshot of the complex day to day life of Pentha Kota, and so are happy to say that any omissions and mistakes are entirely their own.

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Local terms and abbreviations

Barpha Local term for Block	
CBO Community Based Organisation	
CENDEP Centre for Development and Emergency Practi	ce
CRZ Coastal Regulation Zone	
JNNURM Jawaharlal Nehru National Urban Renewal Mis	sion
NGO Non Government Organisation	
OSDF Orissa Slum Dwellers' Federation	
PRA Participatory Rapid Appraisal	
SCOT Strengths Challenges Opportunities Threats	
UDRC Urban and Development Resource Centre	

Research approach



The team undertook field research by the research team using Participatory Rapid Appraisal (PRA) techniques, which allowed for open, flexible and dynamic engagement with the community. The basis of this approach lies in the belief that communities are the best experts on their own situations. To these ends activities included timelines, transect walks, daily activity clocks, wealth ranking, mapping, focus group discussions, the drawing of Venn diagrams, and key informant interviews. An overview of activities is included in the appendices.

Concerning content, three key issues were identified in early discussions: physical environment, relating to land and its use; governance, relating to power dynamics within the community; and livelihoods, relating primarily to fishing. To organise information gathering the team agreed to focus on strengths, challenges, opportunities and threats for each theme.

On the final day the team presented back summary findings to community members. Key findings were presented with illustrations and feedback was invited and received.

Challenges and limitations

The team encountered several limitations and challenges. First and foremost, the PRA approach and the local context were new to much of the team, and hence a steep learning curve was embarked on in a short period. Language was a major barrier for many team members, and dependence on translators was an impediment in pace of work and a challenge for capturing some of the nuances in the information gathered. Understanding what could be said with certainty was a challenge, given the often-conflicting information that was gathered. Also, as external researchers from other countries, the team was extremely aware that much of the dynamic of Pentha Kota remained unseen.

Embedding local researchers within the team, and triangulation of information were some of the ways adopted to address these challenges. The team, however, is aware of the limitations of this piece of work accomplished on a very tight time scale, and acknowledges that that the content of this report represents a partial and limited view of Pentha Kota.



Final presentation back to the community



Summarising and preparing findings



Community meeting



The team



Workshop at KIIT University



Briefing with CBO and community

Pentha Kota fishing community: reflection of the region's urban challenges



Pentha Kota is a fishing community on the eastern side of the coastal town of Puri in India's Orissa State, and represents the state of stress that urban poor communities are undergoing in India.

Three hundred and fifty million people live in Indian cities today. It is estimated that by 2020 nearly half of India's population would be living in towns and cities. As urbanisation is fuelled by migration from poor rural communities, the percentage of people living under the poverty line in urban areas is higher than those living in rural areas, and rising. Consequently, most urban poor people, over 50 percent of the city population in many cities, live in informal settlements on private or public lands, lacking secure tenure adequate housing, or access to sanitation, clean water and basic services. Although slum dwellers provide cities with cheap, informal services, they are treated as non-citizens who have "encroached" in a city that needs their labour, but is unwilling to pay for their housing and basic needs.

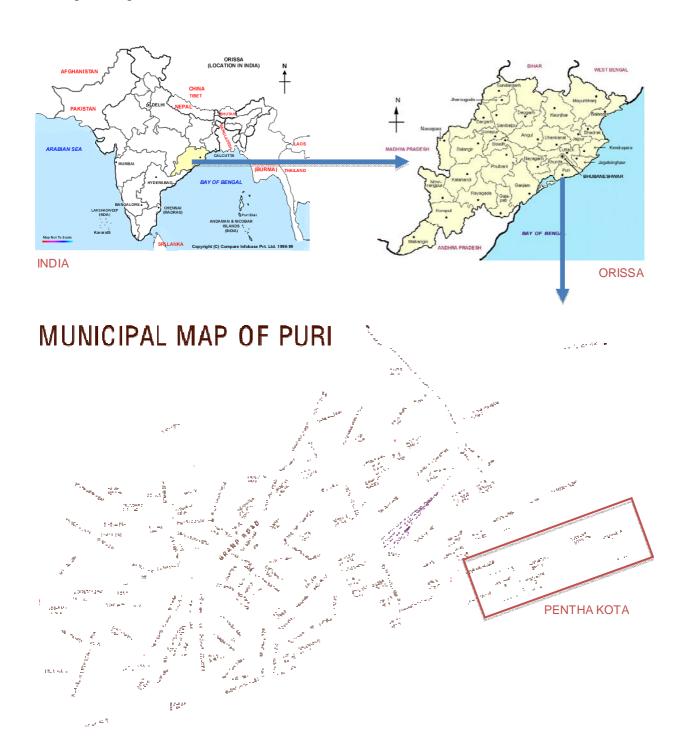
Orissa is currently the poorest State in India and has the lowest rate of urbanisation, with only 20 percent of the population living in urban areas. Approximately 48 percent of the population of Orissa are holders of Below Poverty Line (BPL) cards, and although these are predominantly rurally located, there is a rising number in the cities and towns of Orissa, whose growth rates are rising rapidly towards those of the bigger urban hubs of India. Orissa is also having the highest percentage of socially marginalised groups, with 16 percent of its population belonging to scheduled castes and 22 percent to scheduled tribes.

Orissa is also highly vulnerable to natural disasters, which became tragically apparent when a "super cyclone" devastated the state in October 1999, killing about 20,000 persons. Besides cyclones, natural calamities like floods and droughts, problems of salination of agriculture land, destruction of trees causing lack of firewood, lack of employment and access to resources are significant factors that trigger rural-urban migration.

Puri has a total population of 158 000, of which some 82 000 is living in slums (UDRC). Integration of the poor and risk reduction in urban planning are major challenges being faced by the urban sector. Pentha Kota is taken as a case in point, and used to arrive at guiding principles for a participatory approach to urban planning that is inclusive and reduces risk.

Pentha Kota is primarily a closely-knit collection of some 20 fishing villages located on the shoreline. The community was established about 60 years ago by families who relocated from Andhra Pradesh. Today it is home to some 5000 families.

The proximity of the settlement to the shoreline is in violation of the Coastal Regulation Zone Act, which means that the inhabitants are under a constant threat of forced relocation by the government. The 20 000 or so residents will certainly have to face relocation at some point, but the timescale is uncertain. This coupled with the illegal nature of the occupation of the land, means that there has been minimal investment in the locality by both the government and the business sectors. The result of this lack of investment is an almost complete absence of sanitation, leading to open defecation on the beach; poor water supply; low quality housing; and illegal electrical connections.



1. Livelihoods



Pentha Kota faces significant challenges and possesses capacities with which to meet them. An examination of livelihoods, with attention to both current and future threats as well as existing strengths and capacities, is essential in highlighting the community's rapidly increasing vulnerability and identifying opportunities for increasing resilience. This examination was conducted using a SCOT (Strengths, Challenges, Opportunities and Threats) analysis of issues in the community.

Challenges

Pentha Kota is a coastal community built on land within the CRZ (Coastal Regulation Zone), and is roughly 90 percent reliant on fishing activities. Household dependence on this dangerous and insecure livelihood is a cause of vulnerability. Interviews with local fishermen around seasonal calendars and daily activities highlighted concerns regarding insecurity of yields, high rates of injury, and dangerous weather conditions. Fishing during the monsoon season is particularly dangerous but also offers the highest yields, contributing to debilitating injuries, deaths, loss of equipment and severe debt. A lack of access to education, vocational and language training currently limits livelihood development and diversification.

While government life insurance for fishermen offers small payouts of around 50 000 rupees, only a few fishermen - around 10% - can afford to purchase additional private insurance. While debilitating injury is a fact of life for this community, accidents leading to lost or damaged boats are much more common. Few fishermen can afford the 1000 rupees per year for boat and engine insurance. Such accidents can destroy a household's ability to meet their daily needs and earn a living. Injured fishermen are often required to pull their children out from school in order to supplement family income through fishing or day labor, and wives may have to leave their work in the home to take up low-paying manual labor.

The insecurity of Pentha Kota's fishing industry is closely linked to problems of debt among poorer community members. Due to seasonal fluctuations in fish populations and weather conditions, and large capital investments necessary to purchase boats and other equipment, households are frequently driven to take out large informal loans from wealthier community members. Accompanied by high and unregulated interest rates (10-12% per month on average) these loans are often difficult to repay and often accumulate over the years to much larger amounts than the original loan.

In summary, households in Pentha Kota are made vulnerable by reliance on external factors and a lack of support schemes such as viable insurance, affordable loans or debt relief systems. They are reliant on demand for fish from local or external markets, and yields are increasingly unpredictable and insecure. Loss of vital equipment means losing access to their livelihood along with it, and facing large debts with minimal access to income.



Bondi Raju is a 22 year old fisherman living and working in Pentha Kota. His grandfather was one of the first people to settle in Puri after leaving Andra Pradesh in 1950. Two generations of the Bondi clan have firmly established themselves in the fish industry here in Pentha Kota. Raju is unmarried and lives with his family including his four younger sisters and extended family in a small collection of five houses. His life is dominated by the everyday ups and downs of the fishing industry in a small coastal community.

Raju and his crew 'push off' in their boats in the afternoon in search of fish. Overfishing and pollution have driven fish populations further out to sea, often forcing fishermen to travel nearly 200km from the safety of the shoreline. Stormy weather and high waves batter their small boat, and injuries are commonplace. The crew returns to land late in the night, sometimes after midnight, hopefully with a full hold of fish. They get up the next morning at 6am to sell their fish to local traders on the beach, who package it for sale in local markets or for export. Many days, the crew returns from their long journey with only a few fish; sometimes not even enough to pay for diesel and other supplies for their next journey.

Strengths

While there are substantial challenges facing Pentha Kota, there are also powerful capacities and strengths within the community. Despite the inherent insecurity in the fishing trade, most households have access to employment, and possess access to the equipment needed to earn a living. An important strength of the Pentha Kota community lies in its strong family and community support networks. Fishermen work in close supportive groups, sharing many aspects of labor and activity. Interfamily loans and borrowing also take place to help reduce the impact of shocks and periods of income-insecurity.

It is also a strength that women's groups, such as Mihala Milan and the Women's Fishermen Societies, are operating within the community and providing women a stronger voice. Women also have access to livelihood opportunities including manual labour and fish processing, though access is limited and pay often extremely low.

Threats

The threat most mentioned by community members is the need for secure land tenure and an easy access to fishing wherever they may eventually be relocated. Much of the community is built on the Coastal Regulation Zone (CRZ), which means that there is a high likelihood that they will be moved. This relocation, if it does not suit the community, could create challenges to the sustainability of their livelihoods as fishermen. The fishermen's society has agreed to relocate, but only if they have direct access to the beach and have the amenities required to secure their boats and nets.

The threat of over-fishing by both the Pentha Kota community and large trawlers from nearby ports, and the related dwindling of fish stocks, threatens the sustainability of a fishing based livelihood. Fishermen talked about having to travel up to 200 km to find fish populations. Bondi Raju, a local fisherman, believes that only 30 percent of the fish available in his father's time remain in local waters today. According to community

members, increasing numbers of boats, the use of noisy engines and environmental pollution are driving fish further from the shoreline. Fishermen will have to follow these fish longer distances, and through increasingly dangerous conditions, thus raising the levels of risk involved in the practice of their livelihoods. There is also evidence, both anecdotal and physical, of coastal erosion due to rising sea levels. As a coastal community, Pentha Kota faces serious consequences as water levels rise, as they will be the first affected, losing their land to the sea and facing increased salinity of the water supply.

Pentha Kota's position on the beach also directly exposes the community to coastal climatic events including tsunamis, severe storms and cyclones. Orissa was struck by a super cyclone in 1999 that destroyed similar vulnerable coastal communities. For some poorer households in Pentha Kota the effects were reported to have continued up to the present day, through loss of fishing boats and homes. This report also highlights housing construction and design that would be unable to withstand any major disaster. As one local fisherman put it, in any major disaster, 'there is no need to worry about it, we will be the first to die'.



Opportunities

While the threat of relocation could have a negative impact on the community, there is also an opportunity in this situation to work with the government to negotiate an equitable resettlement. This could provide secure and legal land tenure, access to more government services, and, if located well, an ability to continue their livelihoods under less vulnerable conditions.

There are many community based organisations (CBOs) and societies currently operating within Pentha Kota. The largest is the Fishermen's Society with over 3500 members; others include Mahila Milan, the UDRC and the Women's Fisherfolk's Societies. These groups have the potential to become more influential and supportive of community initiatives, such as savings schemes, and to improve livelihood conditions and take advantage of potential livelihood diversification, such as tourism. There are also government subsidies available for the purchase of boats and engines, and these societies could play a major role in facilitating applications by the fishermen to these schemes.

In 2003 a large cyclone shelter was built near the community by the Government of India, which could house approximately 1000 people during a cyclone. Members of the Fishermen's Society are part of the committee that oversees this shelter. Through interviews however it was stated that the equipment within no longer functions, and moreover that the shelter is rarely, if ever, used. This building represents an underused asset to the community.

Recommendations

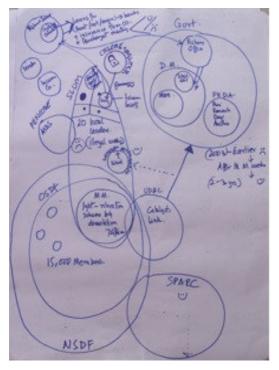
Pentha Kota is a community with potential to achieve stronger livelihoods. However, for this to happen, three major factors have been identified that need support within the community: livelihood diversification; adaptation and mitigation to climatic and environmental changes; and increased access to key services associated with land tenure, integration into the surrounding area, and livelihood security.

These factors could be supported through the following ways:

- Negotiate with government to ensure equitable land or relocation with beach access and facilities to continue their fishing based livelihood
- Diversify livelihoods opportunities, including exploring opportunities to grow tourism, eg through negotiating tours with hotels
- Focus resources on education with particular focus on vocational and language training, with the end
 result of future diversified livelihoods and improved integration into the wider society
- Provide/improve safety mechanisms for fishermen, eg improved life insurance, boat and engine insurance debt relief
- Use the existing cyclone shelter to house many of the CBOs operations, including the fishermen's
 society, and offer vocational training on fish processing, and other livelihood opportunities such as
 mechanics or tourism (boat tours, watersports, etc). Daily use of the cyclone shelter can also enhance
 its potential as a location to disseminate information, from early warnings to fish market prices
- Language classes in the local dialect (Oria) would help the members of Pentha Kota integrate into the city of Puri and gain access to employment opportunities
- Finally, the potential for further processing of fish within the community, as well as business development strategies, could be a line for further research.

2. Governance

Pentha Kota has an internal organisation system involving community members from each of the 32 areas/blocks (called 'baraphas') into which the whole settlement is divided. Though there are no strict borders, only rough delineations marked by intermittent flags. Every barapha has a male representative in charge of civil, social and political matters. There is no formalised voting or election system for these leaders, however some baraphas have an additional second tier of leadership, as in the case of Bangaramma Barapha, comprising of between five and seven elders who are informally selected by the residents.



The baraphas are generally known and identified by the name of the leading individual, e.g. Kare Kasee Rao is the head of Kare Kasee Barapha. One individual has executive jurisdiction over the whole of Pentha Kota, encompassing all 32 baraphas, and is selected by an election process once every five years in which all Pentha Kota residents are entitled to vote. Problems within the baraphas such as crime, land or housing issues, or problems pertaining to livelihood are raised with the Barapha Leader but larger issues go to the higher up leader or the fishing society.

External resources

Access to external resources exist through Community Based Organisations such as Mahila Milan, OSDF, UDRC, and the Fisherman's Society, through NGOs such as National Missionary, and through the political connections of local leaders who are generally well aware of the community's negotiation with government. Local leaders are well

connected to political parties, and consequently have strong links with elected representatives of the municipal, state and national governments. Local leaders also enjoy connections with the private sector through business, and civil society through informal links.

Strengths and challenges

The complex nature of the community governance structures means that many of the community's biggest strengths are also potentially the most likely sources of threats to it, and vice versa. Since it is difficult to clearly categorise certain characteristics of the community they as strengths or threats, they are instead discussed more generally below.

Though there are mixed opinions about the top level leadership, it is clear that the individuals who hold these positions have done so for many years (often decades) and there is little room in the internal governance system for this to change. While long term stability within the leadership is proving useful to the community in many respects, and the potential for efficient and speedy negotiations owing to familiarity is an asset, the absence of significant sections of the community from the political process and the deprivation of choice is of concern.

Marginalisation of women and poorer members of society in official decision-making has led to the popularisation of organisations such as Mahila Milan, though there is still a sizeable number of female members of the community who are not connected to these supports and continue to struggle at their individual levels.

The story of Tulu

Tulu had an arranged marriage to a man named Bulpa, aged 25. For the first five years of their marriage, Tulu and Bulpa were quite happy. They had three children in these years. After five years of marriage, Bulpa started to drink and began beating Tulu when he was drunk. Around the same time, Bulpa took a second wife, but this did not mean that the domestic violence decreased. Domestic violence is largely accepted as an unpleasant part of life in Tulu's community, and she had no support or encouragement to do anything about it. After seven years of violence Tulu came to the end of her patience. She went with her friends and neighbours to see the Barapha leader about the problem and ask for a divorce.

The Barapha leader told her to wait to see if the situation improved but Tulu had already decided that she would rather die than live with the domestic violence any longer. She immediately approached the community leader about obtaining a divorce and with the testimony of her friends and family, the proceedings were started. It took around a month for the divorce to be granted, by which time Tulu and Bulpa had been married for 12 years.

Tulu has had no direct contact with Bulpa and his family since the divorce eleven years ago, and she received no support from them to help raise the children. Tulu took to working as a construction labourer in order to provide for herself and her children. Her work was very hard, and her family was able to give little help. Tulu successfully raised her three children into adulthood through her labouring, and all three are now married and living in other parts of Pentha Kota. Tulu became a grandmother five years ago. Tulu says, 'there is no good and bad, there is no regret. There is just day to day life and I am enjoying my life as it is now'.

Note: names have been changed

The power structure in Pentha Kota is held in the hands of a small number of leaders. The strength and breadth of their leader's political connections allows the community to access existing government resources which may otherwise be withheld from them due to citizenship issues and the illegality of much of the settlement. This is evidenced by the access the community has to BPL Cards which entitle families to claim discounts on food and fuel basics. Over the last three years, families in Pentha Kota have had their BPL cards withdrawn but following direct negotiation between the leaders and the municipal government the cards were reinstated. One of the prominent leaders also claims to have single handed achieved this and much more, including negotiations for the arterial routes within the village to be paved, which will simplify fish trading and facilitate entrepreneurial business interests. There are counter claims to this by other leaders, and they are eager to show evidence of their grip on the community and their legality in being the leaders, negotiating with

the government, and ensuring welfare of the community. Interestingly, there are also allegations and counter allegations among the leaders on issues of corruption, exploitation of the community, and collusion with officials and politicians for personal gains.

Nevertheless, the ambivalence of the political connections of local leaders and their relative informality (acknowledged by the leaders themselves) may leave the mechanisms and outcomes of governmental negotiations ambiguous to most community members. This may make it difficult for the community to monitor the availability and distribution of resources that have been facilitated, and it may leave them subject to the avarice of those charged with their administration. The election process through which a local moneylender has maintained his power suggests that his electorate periodically judges him. However, the challenge of this process is that it would be difficult to find a candidate within the community with a comparative level of political leadership because of the longevity of this one man's leadership, and his stronghold on the local people who are dependent on him for loans, ad-hoc political support, and material support.

The appointment system does ensure a stability of political leadership. It allows the leaders to build relationships with governments, and as they are not legally recognised, there is no guarantee these relationships could be established without fortified informal connections. This also means the longevity of the political relationships are dependent upon the continuity of power at municipal and state levels. Fortuitously, the party with whom the current local leader and his fellow leaders are aligned has been in power at the municipal and state levels for many years. If these government officials, or facilitating bureaucrats, are removed from the seat of power, or they feel pressured by new electoral concerns, then their relationships with the Pentha Kota leaders may change. This may be a vulnerability for the community which may have limited power to influence, however, these continued relationships provide them with access to resources and a reduction of demolition threat for the time being.



Siti, aged 50, has acted as the sole head of her large household since 1999, when her husband developed a debilitative respiratory illness. Today she is responsible for two similarly ill grown children and five dependent grandchildren. With the only income-inputs available coming from two additional grown sons with families of their own, Siti's family has relied on informal community loans and has accumulated a decade's worth of crushing debt.

With no money for annual repairs her home has fallen into disrepair, no longer keeps water out, and is extremely vulnerable to coastal climatic threats. Lacking funds for medicine for both, her son is receiving minimal treatment while her husband's condition deteriorates rapidly. According to Siti it would cost 150 rupees a day to adequately feed her family. As of now the daily 70 rupees available provides only two meals a day of low quality rice.

Opportunities and threats

Mobilisation of citizens through slum dwellers federation and fishing cooperatives provides a strong opportunity for increased citizen's access to power, and the frailty of leadership (age and health issues) might lead to a change in structures of representation. There is potential for women to increase their political voice through participation with Mahila Milan and other women's groups: if their membership expands and they are able to provide evidence for the financial and social resources they can acquire, it will provide motivation and access for women to take greater leadership roles. Emphasis on education within the community may also change attitudes towards gender and leadership - an increased number of local female teachers, and college graduates create more access for women to political voice, especially if affiliated with organisations or churches in the local community. The local federation (OSDF) may also gain significant political voice as they negotiate for resources, thus earning credibility and power within the community. Fisherman are also becoming more aware of external negotiation, checking prices through mobile phones, which means they may become more savvy in what is available to them and may begin to question leadership more directly if these resources are not accessed.

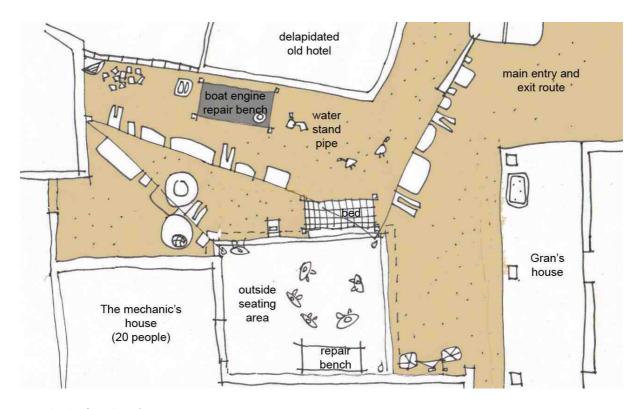
Recommendations

One of the most pressing concerns for this community is land tenure. To acquire land tenure and security, and thus reduce the vulnerability of the community, Pentha Kota residents will need to have a powerful case that can be used in negotiations concerning relocation with government. This will happen best if the community maintains a strong and unified voice, which will reduce the dependency on the informal political relations. This could be improved through the mobilisation of the citizenship with horizontal linkages strengthened across the different barphas through their leaders, and with existing organisations working in the community cooperate and continue to empower those they represent. The horizontal learning of organisations such as the slum dwellers organisation, Mahila Milan and UDRC to federate should also be utilised as an opportunity. A mobilised population would be more persuasive, especially if women are involved in the process to ensure the entire population is represented, even if within the existing structures.

Other recommendations to strengthen the local governance structures are:

- Reduction in the term-time of the political leaders to 2-3 years
- Increase in the strength of the nominations that challenge deeply entrenched and polarised leadership
- Increase in the representation of women facilitated by Mahila Milan, without provocatively challenging the normative frameworks and traditional roles of men and women.

3. Physical Environment



Sketch of mechanic's area

Pentha Kota is comprised of some 20 villages closely knitted together, reflecting the groupings of the original settlers, mostly migrant fishing communities from Andhra Pradesh. The community is located on the outskirts of the city, along the shoreline, and next to Chakratirtha Road in the southeastern part of Puri city. It is bound

by the Sanskrit University and LIC building on the Northeast and hotels like Holiday Resort and BNR Hotel on the west. The whole community is divided into three parts as per the municipal slum list: Pentha Kota A, Pentha Kota B, Pentha Kota C.

Despite a presence of some 60 years in its present location, Pentha Kota does not have legal tenure due to the majority of its location lying on land within 200 metres of the shoreline, within which construction is illegal according to the CRZ. However, in socio-economic terms Pentha Kota is an established community with a sense of permanence with public and private space, communal areas, tea shops, small stores and businesses, houses, communal buildings and some 2-3 storey structures built out of concrete and brick. The government has provided schools to the area up to 10th grade and there are other private schools in the area that some of Pentha Kota's children attend. Public space is well maintained, with clear thoroughfares. Garbage is organised into dumps, often in otherwise unused space between village clusters.

A new concrete road, provided by the government and implemented by local NGOs, has improved infrastructure. Drainage runs beneath the road. Water is accessed by privately owned pumps in various locations throughout the village and by government-distributed fresh water which is provided twice a day. Sanitation is largely through open defecation by the shoreline. Several pit latrines exist, however, within communal groupings. A communal toilet facility built by OSDF exists, which is used by about one hundred families at charges of either 45 Rupees per month for a family pass or 1-2 Rupees per use. It is managed and maintained by the Mahila Milan committee.

The public areas are mainly access space; space people use to access different parts of the slum settlement, such as roads and paths. Semi-public space includes the space under verandas that cover the outside of the home where washing, cooking and some socializing takes place. Semi-private space includes internal verandas and the small courtyards created by the clustering of homes. Private space is that within homes, including kitchens and bedrooms.

At least four different typographies of house were identified in Pentha Kota according to construction materials. These were: construction using waste materials, e.g. plastics; palm thatch housing; brick walls with palm thatched roofs; and brick and render. Building types comprised housing, stores, community buildings such as churches, shops and schools, and businesses, mostly concerning fish processing and storage, but also including other manufacturing, e.g. of wooden furniture.

Shakila, an 18 year old student at the Government Women's College, Puri

The daughter of a fishing boat mechanic, Shakila is an only child who lives with 20 of her relatives in an established brick house within Pentha Kota. Shakila is the third generation of her family to live in Pentha Kota. She is a student at the Government run Women's College in Puri and wants to go on to post-graduate studies. Shakila's father repairs fishing boat motors in their communal outdoor courtyard. Shakila's aunt escapes the heat by resting on a string bed in the shade of the families' veranda with many of her other relatives. This space is also where they share family meals and entertain.

Shakila would like to see more electrical lights in her area so as to feel safer at night. After the 1999 super cyclone, Shalila's house was damaged but her family could afford to rebuild with improvements such as a more permanent roof.

Challenges

The largest struggles with regards to housing and space are the permanence of the housing structures and the tenure of land. Pentha Kota's planning has evolved organically over time. As a consequence many secondary access paths throughout the village vary in size and do not adhere to a planned pattern or structure. This makes access for fire or medical emergencies difficult. The presence of relief organisations and their mobilisation work puts education and curative health as major issues above land, water, and sanitation. Housing and livelihoods are more of rights based, complicated and controversial issues to address.

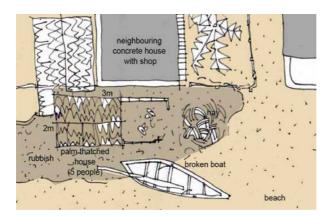
Opportunities

Eventual relocation provides an opportunity for improved housing. Improving private space and security in the houses would improve quality of life for many of the families.

In terms of infrastructure, there is a desire within the existing community for paved roads, drainage and water access improvements. The option for new multi purpose toilet facilities is also an opportunity to greatly improve sanitation in the slum settlement and at the same time work as community centres, disaster shelters or education centres so as to ensure proper maintenance and use of the structures. The use of the structures for a diverse range of purposes such as an (adult) educational centre, community centre, sanitation centre etc. make these spaces maintained properly for effective collective uses for collective needs. Sanitation is an issue especially highlighted by women, and some community members claim that part of the problem is that there is a lack of education on the importance of toilets as well as the funds needed for the proper facilities. One community member stated that with education and funding toilets would be better used and this will improve sanitation.

Threats

Nearly all houses in the village are vulnerable to cyclones, storms, storm surges, tsunami and flooding. Almost all houses would fail to withstand a cyclone, and, being built (literally) on sand, lack adequate anchoring in the ground. Their location, only metres from the sea, also makes them vulnerable to ongoing sea erosion and longer term rising sea levels. The organic nature of the settlement also makes any opportunities for new infrastructure difficult. Hence, even if the community were to be present for the longer term, it would be difficult to build such new infrastructure such as roads and drainage pipes in a way that can be cost effective, sustainable and maintainable.





The community also struggles with legal restrictions on the land. The government has traditionally held a stand that it can only build infrastructure on legal parts of the land, leaving almost all of Pentha Kota unable to gain improvements in infrastructure. Though there is recent slackening in this attitude with recognition of right to livelihood and right to alternate land without affecting livelihoods through more and more central government schemes such as the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), its implementation on the ground level is yet to reflect central policy shifts since different political parties are in power at the centre and the state.

Land tenure also threatens the government's ability to improve toilets and garbage collection. Water contamination from lack of sanitation facilities is also a potential issue. Many people depend on water pumps from the water table that can be contaminated from drainage and sewage seeping into it. The area is also becoming very dense, which increases garbage, sewage and pollution.

Recommendations

While in the longer term Pentha Kota is almost certain to be relocated, which provides opportunities as well as challenges concerning land usage and construction, there are also some immediate concerns and opportunities. For the immediate term therefore, two pressing issues are:

- Improving sanitary practices, including the improvement and increase in number of well built toilet complexes on government / legal land, affordable for use by community members, which is possible if they are designed constructed, managed and maintained by community committees with women leadership. Such complexes, if to be used, would benefit from extensive community consultation on their design
- Undertaking a survey of the most vulnerable shelters, from the point of view of possible storm surge, cyclone and fire risk. The survey would indicate places of higher risk, on which preparedness plans could be focussed, e.g. for evacuation, as well as low cost retrofitting.

For longer term considerations, relocation presents risks to Pentha Kota, but also, if well considered, opportunities. Considerations therefore include:

- Above all, a relocation to land close enough to the community's current fishing sites, on good quality land where land tenure is clear and is within the ownership of community members
- Promotion of risk reduction technologies in shelter construction while also ensuring that shelters are low cost, use local materials, are dependent on local technologies, and are climatologically comfortable
- Current use of space by the community could provide the basis for a design of the new site that takes into account the needs and culture of the community. While such consideration is all-too-rare in relocation projects, the Pentha Kota relocation could provide a valuable show-case in this regard
- To facilitate the last point, a community led survey of Pentha Kota's current layout, including the relative autonomy of its some 20 'inner-settlements' could be undertaken and used for planning the new settlement. Provision of fishing activity space will also be a critical requirement. This includes space for drying fish and for repairing nets
- Access to credit and housing opportunities for marginal fisherfolk
- Women led leaderships based on improving livelihood, physical conditions, and decentralised governance.

students' salve for Penthakota fishermen TIMES NEWS NETWORK

Puri: Penthakota fishermen facing the prospect of losing their lands to sea erosion have found an unlikely saviour in a group of foreign stu-

Fourteen students from Oxford Brookes University in England during a recent trip to the coastal hamlet pledged to help mitigate the residents' suffering with the help of a Delhi-based voluntary organisation. They have drawn up a list of recommendations to improve the fishermen's lifestyle as well as livelihood. "We would submit a report of our recommendations to the NGO that would communicate the suffering of the fishermen to the government. Besides, our recommendations can be used as reference by others. including government organizations," Laura Howlett, one of the students said.

The from the English varsity's Centre for Development and Emergency Practice (CENDEP) department were here to study the Penthakota fishing community and to learn about their vulnerabilities and needs.

"The fishermen want to be relocated as the sea is fast eating away the shore, possibly due to the effect of climate change. Besides, they need sanitation and supply of drinking water. Education is another area that



Schindler, another student said.

"The fishermen should be educated and trained to engage themselves in tourism industry," said Srimanta Kumar Dash, president of India Japan Friendship Centre (Orissa branch), a voluntary organization urgent attention regarding better that co-ordinated the interaction of set up a fishing harbour by relocatforeign students with fishermen.

er sources apart from fishing," Zeya our lives are in jeopardy. Despite astrict official said.

surances from the government, we are yet to be shifted to safer locations," Atma Rao, a fisherman, said.

The 40,000-strong fishing community have been living at Penthakota for the last 50 years.

"In 2001, there was a proposal to ing the fishermen to a safer place The fishermen are optimistic that near Jagannath Sanskrit Universineeds to be taken care of. Besides, the effort of the foreign students ty, but the land was not allotted as it their skills should be diversified so would help abate their woes. "We came under forest area. Now, we are that they can eke out living from oth- have been seeking relocation because trying to find another land," a dis-

Satabhaya villagers slam shift plan

TIMES NEWS NETWORK

sion to shift 3,000 people from the seaside villages of Satabhaya and Kanhupur place," Sudarshan Rout of Satabhaya to Bagapatia has not gone down well with village said. many. The villagers won't be provided

with the lives of people from Satabhaya villages in Kendrapada district. Now by trying to shift them to Bagapatia only two villages, Satabhaya and Kanwhere they will not get any agricultur- hupur, remain. The Bay of Bengal has al land. The authority has decided to pro- eroded five villages of Gobindapur, Movide only 78 acres of land to 711 fami- hanpur, Chintamanipur Badagahiralies. One family required at least two matha and Kharikula. acres of land for cultivation and other purposes. But the authority is only promayhem. It once used to be the centre of viding land to build houses. Villagers should be given about 1,500 acres of land in Rajnagar block for rehabilitation," sarpanch of Satabhaya gram panchayat Sasmita Das said.

"It is not possible for the administration to provide 1,500 acres of farmland to all villagers. We will provide 78 acres of lands to 711 families. The villagers can cultivate their land in Satabhava. The chief minister will son come to Bagapatia to lay the foundation stone for the resettlement colony," Kendrapada collector Sishirkanta Panda said. "We are in a catch-22 position after the gov- itating against the Centre for over two ernment decided to shift us from Satabhaya village to Bagapatia. The sea has in 1,200 acres of reserve forest land at eroded four acres of our land within a Bagapatia, district secretary of Krussdecade. Now we have two agres left in ka Sabha Gayadhar Dhal said.

Satabhaya. But the administration has decided to provide only a small piece of Kendrapada: The government's deci- land in Bagapatia, 10 km from Satabhava, so we are not keen to leave the

Large tracts of land in Satabhaya has with any agriculture land at Bagapatia. been wiped out by the rising sea level. "The state government is playing Satabhaya was once a cluster of seven

A tubewell tells well about the sea's Kanhupur village but now it is very close to the sea. Agriculture has also been affected by seawater intrusion. With large tracts of land devoured by the marching sea, inhabitants of the area have been transformed into ecological refugees with no place to go to," former sarpanch of Satabhaya gram panchayat Nigam Rout said.

The constant erosion by the Bay of Bengal has reduced Satabhaya's areas from 350 sq km in the 1930 settlement map to approximately 140 sq km today

Villagers of Satabhaya have been agdecades after it refused to resettle them