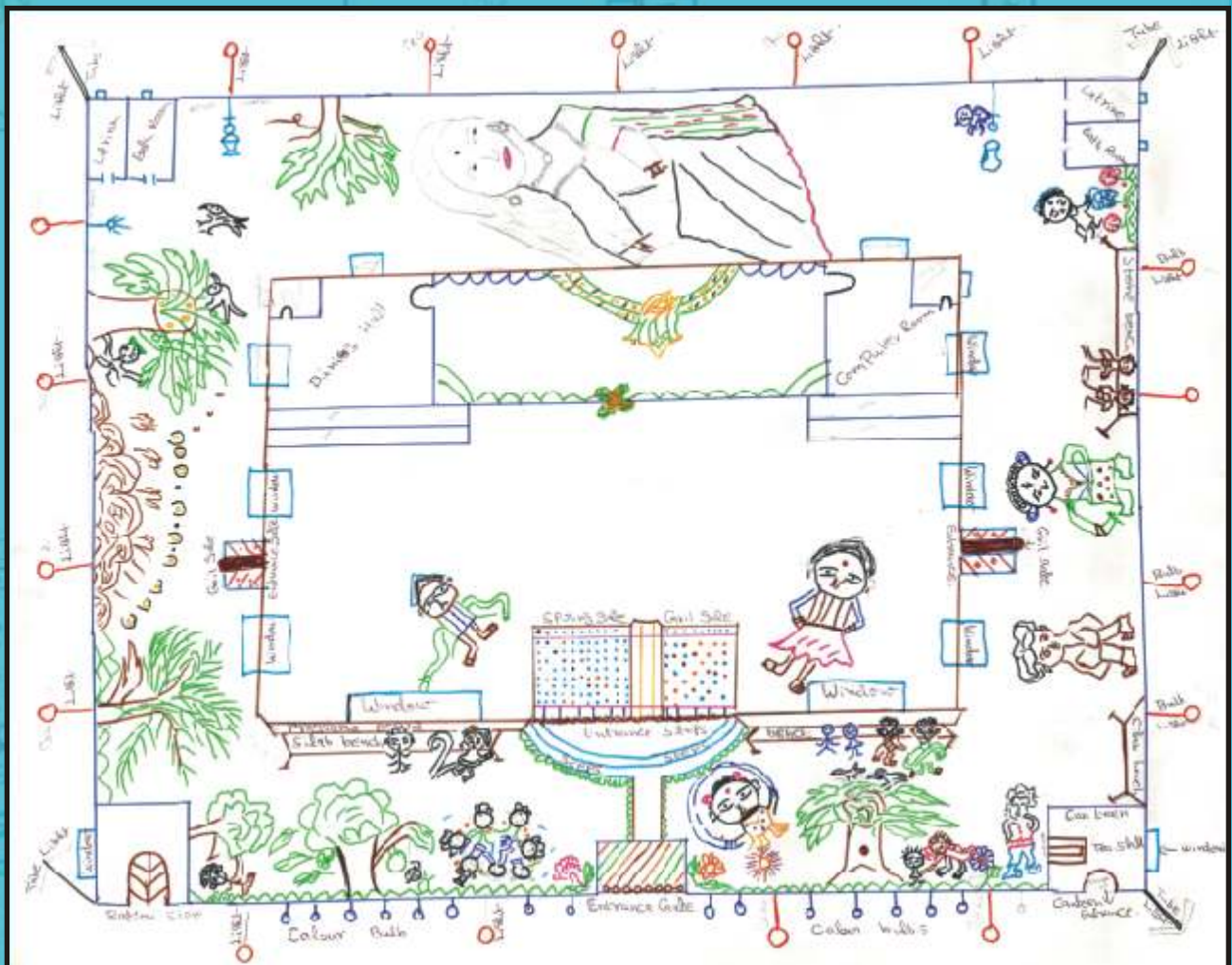


# MAKING SPACE FOR CHILDREN

Planning for post-disaster reconstruction  
with children and their families



Save the Children

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We deliver immediate and lasting improvements to children's lives worldwide.  
Save the Children works for:

- a world which respects and values each child
- a world which listens to children and learns
- a world where all children have hope and opportunity

ISBN

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# **MAKING SPACE FOR CHILDREN**

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# Preface

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In relation to the protection of children in emergencies, the physical living environment is often overlooked. We tend to think in terms of family separation, psychosocial distress, displacement, sexual exploitation and abuse of children and some of the most blatant violations of children's rights are in these areas. But in a global context, the probably most pervasive violations of children's rights have to do with their living environments.

Interventions such as identifying places where younger children can play, where adolescent girls and boys can have a social life of their own, may be key in reducing the stress levels of children and in providing them with the opportunity for the kinds of social interaction that can encourage their resilience and positive development. In the tsunami response Save the Children was quick in establishing these kinds of “safe havens” for children.

But this is not enough. It is crucial also to address the wider physical environment around children in order to provide them long term stability and security in emergency situations. Children and their families are being deprived of a home, sometimes of any kind of privacy. Health can be at stake due to damaged or destroyed water and sanitation systems. School facilities may have been destroyed or are used for purposes other than education. Conflict or threats of further earthquakes or floods limit the opportunities to move around. Possibilities to play indoors as well as outdoors are restricted.

The tsunami response has tended to involve the delivery of shelter with little attention to the implications of housing construction for social reconstruction and community building, and with little understanding of the ways children can be affected. The result is solutions that are frequently out of touch with people's real needs, undermining families coping mechanisms and seriously affecting children's health, safety and emotional security.

Instead, the reconstruction of housing and neighbourhoods in the tsunami response must build on processes that strengthen the capacity of communities to regain control of their own lives with a focus on their children's present and future well being. This must involve the active participation of children in identifying issues and solutions in their local living environment.

This handbook aims at contributing to disaster response reconstruction programmes that not only rebuild the physical living environment but that strengthen the capacity of communities to regain control of their own lives, with a focus on their children's present and future well being. It is an important contribution to the development of Save the Children's understanding of the impact of the immediate living environment on the protection of children in emergencies. It's also a step forward in the organisation's expertise in involving children and their families as the experts on their own needs.

Gabriella Olofsson  
Latha D. Caleb

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# Acknowledgement

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This handbook grew out of a workshop with Save the Children staff, partners and community members in Cooks Nagar, Nagipattinam in Tamil Nadu late in 2006. The objective was to give children and adults the chance to plan the changes they wanted to make in their settlement as it underwent reconstruction following the tsunami and for staff members to learn from that process. The handbook is an attempt both to document this process, and to make the principles behind it more widely available.

We are grateful to all the children and adults in Cooks Nagar for their warm welcome and the energy they brought to this intensive process. We also thank the staff of the partner organization SEVAI for their generosity in supporting this more time consuming approach to rebuilding, and for their dedication in staying the course long after the workshop was over. Thanks to Anupama Nallari for the time she gave as a volunteer in helping the workshop run so smoothly, and to D. Mahalaxmi in Cooks Nagar for producing the cover drawing. And special thanks to the staff of Save the Children's Tsunami Response Program in India, especially to Latha Caleb and Deborah Bickler for their willingness to trust this process and to make the opportunity available to us all.

We are grateful, also, to Gabriella Olofsson of Save the Children Sweden for her unfailing support and patience as we produced this handbook, a process that was longer and more complex than anticipated.

Sheridan Bartlett  
Selim Iltus

# MAKING SPACE FOR CHILDREN

## Planning for post-disaster reconstruction with children and their families

**T**wo years after the tsunami, the region is still struggling to rebuild. The great majority of those displaced are still in temporary shelters or short term arrangements, living in conditions that threaten their health and safety, stability and social cohesion. Meanwhile new emergencies, with depressing regularity, add to the thousands of households displaced and precariously housed.<sup>1</sup>

There have been some splendid responses. Throughout the region there are places where the tsunami, devastating as it was, opened up opportunities and became a chance to address long-standing problems. It became a jumping-off point for new levels of engagement and organization within communities. But these kinds of responses are not what we most often hear about. More often people speak of slow, clumsy, wasteful interventions that have generated cynicism rather than hope, dependence rather than initiative. There has been a general failure to consult with affected communities and to give them an active role – a general reluctance to recognize that rebuilding means not only housing, but people's lives and livelihoods. The pressure to provide immediate responses, and the limited time-frame for donor assistance, generally overwhelm the desire for a more process driven, integrated development approach. The expectation on all sides is often for quick results rather than long lasting ones.

One of the areas where many local and international organizations, government agencies and communities have fallen short has been with regard to children and their protection. Among child-focused agencies there is

*There has been a general failure to consult with affected communities and to give them an active role – a general reluctance to recognize that rebuilding means not only housing, but people's lives and livelihoods*

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<sup>1</sup> For instance, floods in Tamil Nadu in November 2005 left an estimated 200,000 homeless; an earthquake in Indonesia in May 2006 displaced up to 600,000 people.



*Weekly support sessions cannot be a substitute for functional families and communities; nor can the safe play areas replace safe, welcoming homes and neighbourhood space*

certainly a recognition of the potentially critical implications of disaster for the bodies and minds of developing children, and there have been many important interventions and supports across the tsunami region. These agencies have reunited children with their families and worked with health departments and education systems to restore their vital services as quickly as possible. Hundreds of "safe play areas" have been built and staffed to give children some respite from the chaos around them. Psychosocial support groups have been available for children traumatized by the event – or simply in need of breathing space. And in some places, children have been engaged in measures to prepare for future disasters – a chance to feel like active agents rather than passive victims in a precarious world.

But no matter how effective these interventions have been, there is the question of what children are going "home" to. Two years later, most are still in temporary one room shelters that have deteriorated badly. Others remain in hot, overcrowded emergency barracks where there is no privacy, and where they are afraid to go out and use the toilets at night for fear of harassment or even abuse. In many places, these children look out on litter, debris and stagnant pools of water. These disheartening physical conditions take their toll on body and spirit. Often there are only rumours about when the situation will change, and for many, it is still uncertain whether they can return to their own land. Many children go home to frustrated, depressed parents who feel they have lost control of their lives. Some live in communities where norms of behaviour have been turned upside down. Weekly support sessions cannot be a substitute for functional families and communities; nor can the safe play areas replace safe, welcoming homes and neighbourhood space.

This is not to imply, of course, that life for those affected by the tsunami was trouble-free before the disaster. Inadequate housing is nothing new for many poor families in the region, and social dysfunction can be present at the best of times. But the scale and nature of these concerns has been vastly greater since the tsunami. And clearly the response intended by the many donors was not just to repair the damage, but to use the event as an entry point for addressing longstanding development concerns.

There is growing recognition of the shortcomings of disaster responses, and the need to take a more integrated development-based approach to the many complex concerns that come up, for both children and adults. The



reconstruction process is a precious opportunity for addressing these concerns, both the short term and longer term issues. It's not just a matter of rebuilding houses. It's also a chance for people to take control of their lives, and to engage with their children in planning a local environment that works for them all.

There is in general little understanding, however, of how the rebuilding process affects children, or how it relates to the whole issue of child protection. Even for organizations that have tried to undertake reconstruction with children's needs in mind, there is a good deal of confusion about what a "child-friendly" settlement actually means or what it might look like. This handbook provides some guidance on the process of rebuilding housing and neighbourhoods that work well for children. This is not a matter of pitting children's needs against those of everyone else. Far from it. Settlements that work well for children usually end up providing a better quality of life for everyone.

The more common approach is first to build, and then, as an afterthought, to think about what children and young people might need. The result is often rows and rows of houses with perhaps a day care centre and some swings and a slide somewhere on the periphery, a cricket field or a volley ball court off to one side. The real needs are far more complex than this. If we wait until after construction to take them into account, most of the opportunities will be lost.

The objective of this handbook is to help organizations and communities to keep children in focus throughout a complex, demanding process. It is intended for child-focused organizations that are concerned with the protection of children in disaster response but are not accustomed to thinking in terms of shelter; and also for NGOs, local community-based organizations and contractors that are familiar with the issues of reconstruction, but that have not actually considered the implications for children in their planning and decision-making. It has been written with the construction of permanent housing and settlements in mind, but the principles discussed here would also be relevant for temporary housing. Ideally this handbook will also make it easier to explain to governments and donors, and even communities, why a more thoughtful, possibly more time consuming process, will lead to more desirable outcomes.

*This is not a matter of pitting children's needs against those of everyone else. Far from it. Settlements that work well for children usually end up providing a better quality of life for everyone*

*The emphasis here is on a process, not on a particular end-product. There is no single blueprint for housing or neighbourhoods that work well for children and young people*

The emphasis here is on a process, not on a particular end-product. There is no single blueprint, in other words, for housing or neighbourhoods that work well for children and young people. Every place is different, and presents different challenges and opportunities which have to be identified locally by the people who know them best – the children and adults in a particular locality. This handbook attempts to clarify some of the issues, and to outline all the areas that deserve consideration. It provides the kind of generic information that can help communities arrive at locally-specific solutions. But most important, it describes a process through which adults and children can be involved in reconstructing their lives together.

The book is divided into three sections entitled **WHY? WHAT?** and **HOW?**

- The **Why** section explains why it's important to consider children during rebuilding. It provides some simple background on how living conditions affect children in all aspects of their development. It also explains why it is **essential** to involve children, adults and local community-based organizations in the planning process.
- The **What** section covers all the components of the local living environment that need to be considered – from location to the details of house design – and explains the particular impact they can have for children. This section covers, very briefly, the same kinds of concerns that are addressed by the invaluable Sphere Standards,<sup>2</sup> which provide guidance on post-emergency provision – but in this case with very specific reference to children and young people.
- The **How** section presents the process. Making a community that works for children is about far more than suitable buildings and play space. It's about an awareness of children's perspective and requirements and a willingness to take them seriously. An inclusive, community driven process is critical for this purpose, to ensure that local problems, local needs and local solutions are taken into account – because there IS no single blueprint. This section is accompanied by a narrative account of one such process which took place in October 2006 in the village of Cooks Nagar in Tamil Nadu.

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<sup>2</sup> Sphere Project (2004) “Minimum standards in shelter, settlement and non-food items”, chapter four, *Humanitarian Charter and Minimum Standards in Disaster Response* [www.sphereproject.org/](http://www.sphereproject.org/)

# Why?

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## *Why focus on children?*

**T**he process of programming, designing and constructing living environments is seldom one that takes children into careful account. Usually we assume that adequate living conditions serve everyone in more or less the same way. But boys and girls of different ages have needs they do not always share with other age-groups, and they can be affected in very particular ways by features of their environments – often more seriously than adults. Children, especially very young children, spend almost all their time in and around their homes, and the quality of these spaces can have a critical effect. This is not just a matter of their day-to-day comfort or amusement. The effects can have long lasting implications for their development on every front.

*Health and safety:* Children, especially very young children, are far more seriously affected by unsanitary surroundings and various environmental hazards than adults are. Because of their immature immune systems, they are more prone to respiratory illness, diarrhoea, skin and eye infections and a range of other ailments. They are also more heavily exposed to germs, germ carriers, toxins and pollutants because of their drive to play and explore. Children under four or five are the most seriously affected.

The same thing is true for safety hazards – children's curiosity, energy and urge to explore can put them at particular risk of burns, cuts, poisoning, falls and drowning. These preventable events are all closely related to local conditions, and children under four are most likely to be the victims. Road traffic accidents are another critical issue – rapidly becoming the number one killer for young people in many places, often because there is no place to play except in the road, and no safe way to walk to school.

Not only are children more likely to experience these illnesses and injuries; they are also more likely to be affected over the long term. Repeated diarrhoea in a young child, for instance, can lead to stunted growth and lower achievement in school later on. Injuries to immature bones can mean lifelong crippling deformities.

*Boys and girls of different ages have needs they do not always share with other age-groups, and they can be affected in very particular ways by features of their environments – often more seriously than adults*

*Familiar, stable surroundings make a critical contribution to children's sense of trust and secure well being, especially after a disaster, when adults are anxious and stressed, and may lack the sense of control over life that allows them to be a secure source of comfort and reassurance to their children*

*The way people engage with each other in any community is affected by things like the level of crowding, the potential for privacy and the kinds of spaces that are available for socializing and interaction*

*Emotional security and stability:* Children's emotional security is basic for their healthy development. We tend to think of this security as being rooted in warm, secure human relationships, and this is true. But familiar, stable surroundings also make a critical contribution to children's sense of trust and secure well being. This is especially true after a disaster, when adults themselves are likely to be anxious and stressed, and when they may lack the sense of control over life that allows them to be a secure source of comfort and reassurance to their children. When children have been separated from their families by a disaster, safe, predictable living conditions can also mean a lot in restoring their sense of stability.

*Mental development:* Children's ability to learn is supported in a number of ways by the quality of their living environments. Factors that affect health are clearly important, because sickly children do not learn well. But the amount of variety and opportunity in their surroundings is also critical. For a young child's brain to grow and develop well, it must be stimulated – by colours, textures, shapes, by the chance to watch, touch, imitate, experiment, and explore. Children are hungry to understand the world and to become competent people, and when they are young, they do this through play. Their active involvement in play is essential to their full development, and it has a direct impact on their later success in school. A safe, stimulating environment is fundamental in ensuring that children have the play opportunities that they need, so that every day is a chance to learn.

As children get older, they still need opportunities to relax and have fun – a chance to allow their brains to rest and shift gears. This is critical to their ability to function well in school. Again, this depends on the physical conditions around them – on how easily they can find appropriate places for recreation and socializing.

*Social growth:* Children's development as social beings is also shaped by opportunities and limitations within the local environment. Their ability to get along with other people, to understand the rules of social behaviour and to function well in the world depend on their healthy interaction with other children and young people, and the chance to watch positive relationships among adults. But the social world is deeply affected by physical conditions. We have only to look at life in the emergency barracks after the tsunami to understand that this is true. The way people engage with each other in any community is affected by things like the level of crowding, the potential for

privacy and the kinds of spaces that are available for socializing and interaction.

*Identity:* Closely tied to social development is a child's growing identity as a member of a group. This is deeply rooted in cultural practices and routines that can be either helped or hindered by the physical surroundings. Provision for cooking, eating, worshiping and celebrating, for instance, help a child to have a sense of belonging and membership. The local surroundings can also affect a child's sense of self worth. Adults often feel that children don't notice their surroundings. In fact, they tend to be more sensitive to what is around them than adults are. Research from around the world, for instance, shows that children see dirty, smelly, waste-strewn surroundings as a humiliating reflection of their own value as people.<sup>3</sup> Active participation in improving local conditions, on the other hand, can help children develop a strong sense of identity and confidence.

*Caregiving:* Poor living conditions affect children directly. But they also have less direct impacts through their effect on other family members, and especially caregivers. When caregivers are supportive, consistent and responsive, children are healthier, more secure, more socially competent, more advanced in language skills, and better able to learn. But difficult living conditions (like too little water to keep things clean, no place to store things, overcrowding, no feeling of security) can make caregivers tired, anxious, irritable and depressed. This affects their ability to provide responsive care and positive attention. When small children are dangerously underfoot as a mother is trying to cook, for example, it can often lead to slaps and scoldings. Poor conditions can even contribute to serious neglect and abuse.

*Children see dirty, smelly, waste-strewn surroundings as a humiliating reflection of their own value as people*

*Difficult living conditions can make caregivers tired, anxious, irritable and depressed*

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<sup>3</sup> Chawla, L, Ed. (2001) Growing Up in an Urbanizing World. London, Earthscan/UNESCO.

## *Why involve children and their families in rebuilding?*

**E**mergency responses focus on meeting immediate needs as quickly and efficiently as possible. They rarely involve the active participation of affected communities in decision-making and management. Governments, international agencies and NGOs tend to remain in this top-down delivery mode throughout the rebuilding process, assuming that that involving people is messy and time consuming, and that local people are unlikely to have the knowledge or competence to contribute anything useful. When community participation is required by donors and governments, it generally involves rather superficial consultation – for instance, showing people the plans, or perhaps allowing them to decide between a few pre-designed models. There is an understandable reluctance to give up control and to further complicate an already complicated process. There may also be little knowledge and experience on how to manage a genuinely participatory process.

The results can be seen throughout the tsunami region – solutions that are frequently out of touch with people's real needs: neat rows of tiny concrete houses that often remain unoccupied; "victims" who seem unwilling to do anything for themselves, and who appear dissatisfied and even greedy. There is much discussion of this "post-disaster dependency syndrome", but there appears to be relatively little effort to address it by giving people greater control and responsibility.

There are many good reasons for involving people as fully as possible in the rebuilding process.

- The best solutions are almost always context-specific. People are the experts on their own needs – involving them effectively taps into available knowledge and skills, ensures that local realities are considered, and leads to the best decisions for reconstruction.
- Active involvement can help to prevent frustration and misunderstanding. When relations are good, things go more smoothly.
- A higher level of ownership and satisfaction contributes to better monitoring of the building process and better post-construction management and maintenance.

*People are the experts on their own needs – involving them effectively taps into available knowledge and skills, ensures that local realities are considered, and leads to the best decisions for reconstruction*

- Active involvement is the best possible way to give people back a sense of control of their own lives.

In the best situations, participation extends to budgets and spending decisions. When people know what the limits are, they are likely to make the most practical decisions about how to use available resources, and to be willing to compromise on what is less important.

But how does this community involvement relate to children? If the objective is to create a settlement that works well for children and young people, it's not effective to consult only with adults. We all make assumptions about children's needs. Whether we are parents or professionals, we can be surprised by the fresh perspective children bring and the novel solutions they suggest. Children, like adults, are the experts on their own lives.

But in that case, why not just ask children, rather than involving adults as well? This is often what child focused agencies do. Understandably, they focus on children's involvement. Child participation projects are an indispensable part of many programmes, valued for their capacity to educate children in active citizenship. But if consultation with children does not involve adults too, these efforts can be quite short lived – when the child-focused organization leaves, the project dies. When children's concerns are dealt with outside the context of more general community efforts, they become artificially split off from the very processes and people that should sustain them. This is especially true if the intervention in question involves the local environment, which affects everyone. Children's desire for a cleaner neighbourhood, for instance, will not amount to much if it doesn't become part of a community plan for waste management. Their concerns about getting around safely at night won't be adequately addressed if street-lights do not become a community priority. If solutions for children aren't integrated into more general solutions, they will fail to put down roots. Often this takes negotiation, and a willingness on all parts to consider other perspectives.

In Cooks Nagar, the community that is the source for most of the examples in this manual, children said that since the tsunami, they found it much easier to play with one another and run around the community. The wave had destroyed most of the walls and fences around people's houses, along with many of the houses, and there was far more open space within the

*When children's concerns are dealt with outside the context of more general community efforts, they become artificially split off from the very processes and people that should sustain them*



neighbourhood than there had ever been before. The children enjoyed this, and asked that the walls not be put up again. But people in this community were accustomed to their walls and said they liked the privacy they created. Mothers saw them as a way of keeping small children safe. Adolescent girls liked having gardens in the fenced space, and felt that just possibly a good wall might be a protection from another tsunami. There was nothing in the budget for rebuilding these walls, however, so for the moment, it was not a burning issue. But meanwhile, as a result of the process of consultation, many people who had never really had much contact with their neighbours found they were enjoying spending time together. Women were finding it pleasant to sit on their front steps in the afternoon when their chores were done and to talk to friends who were strolling by brushing their hair during the precious quiet time before the men and older children came home. It was beginning to seem quite likely that the children's desire for more open space might actually encourage people to think differently about the space outside their homes

There is another reason why children's participation should be part of a broader community process. Efforts to address children's anxiety and distress after a disaster generally happen through psychosocial support programming, which can be extremely valuable. But it can be even more reassuring for children to see their parents and neighbours as competent people who can take an active role in planning their lives and making decisions. Involving children and bypassing their elders is not a healthy way to support strong family and community relationships.

# What?

---

**W**hat are the factors in rebuilding that need to be considered from the perspective of children? People talk about "child friendly housing" or "child friendly neighbourhoods", but there is usually little clarity about what this means in practical terms. Usually, what comes to mind is the need for playgrounds – or, right after emergencies, those safe play areas. But these are very limited responses. In fact, there are few details in either a house or its surroundings that do not affect children in some way – something as small as the height of a light switch or as major as the placement of a road. Many features of the local environment affect children, but there is no good recipe for "child friendliness". The practical solutions are always local and require local processes in which children are involved.

Within the context of the tsunami response, when there has been local consultation, too often it has involved only the plans for the housing unit. But housing is just one important element of rebuilding. The same house in two very different settings could provide two completely different experiences for children and the rest of their families. Location, site plan, shared amenities and common space all need to be taken into consideration as well.

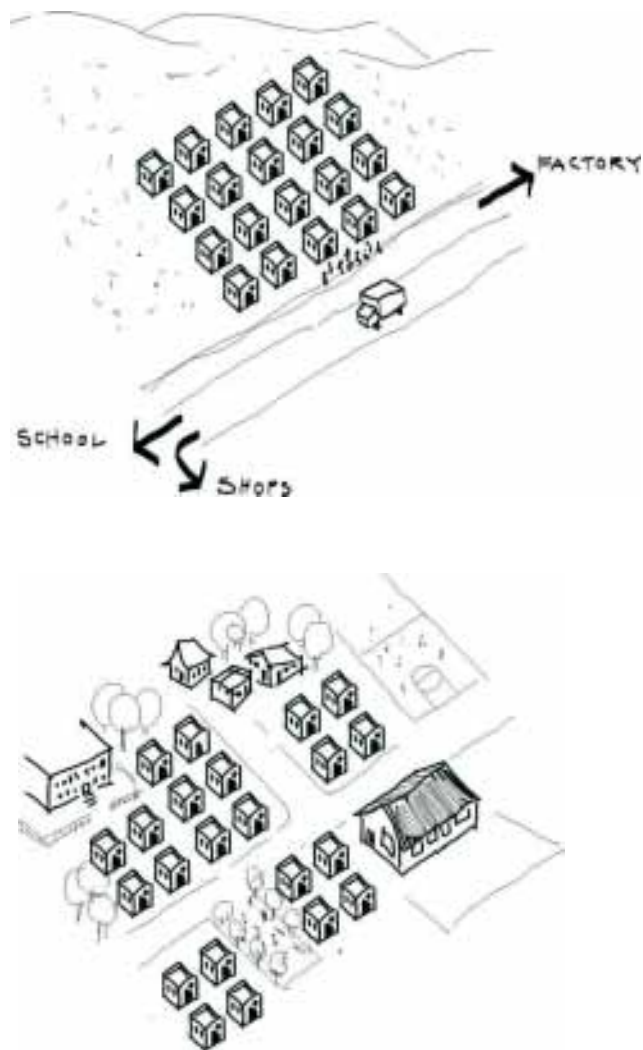
The following "checklist" should not by any means be taken as a set of directives for action. Rather it is a list of the issues that need to be discussed and debated with families and children. It cannot be considered outside the context of the community process described below in the **How?** section.

## Location

**L**ocation affects everything else. There is often little choice in this regard. Where it is possible or permissible for housing to be rebuilt on the original site, no change is needed. Where this is not possible, the availability of land may be limited and subject to complex negotiations. Where choices are

*There are few details in either a house or its surroundings that do not affect children in some way – something as small as the height of a light switch or as major as the placement of a road*

*The wasteful implications of poor location can be seen throughout the tsunami region. In Nagapatinam, Tamil Nadu, for instance, a small community of harbour workers has been living in emergency barracks since the tsunami. These buildings are hot, overcrowded, inadequate in every way. But they are located near jobs, markets and schools in a vital, lively area. Just two kilometers away, new housing is ready for these families, and hundreds of others, to move into. But it is located in a barren area with no shops, no trees, no transport, no amenities of any kind. No one has yet made the move, despite the difficulties of their current situation.*



*A site should make livelihoods, shops, schools and other facilities easily accessible*

possible, a number of factors should be considered. A location that does not support the practical needs of a community may result in a wasted investment. Psychological realities must also be considered. A site may cover all practical considerations but it will still be unsuitable if the community is too emotionally tied to another kind of location. Traditional fishing communities may, for instance, find it wrenchingly difficult to live without contact with the sea. And if a community fails to put down roots in a new place, there will be real implications for children and their need for security, predictability and rootedness. There may be little choice regarding location, but where there are any choices, they should be discussed with the people involved.

**Accessibility:** A site should make livelihoods, shops, schools and other facilities easily accessible. Long trips to work mean less time available for children, heavier work burdens on those at home, and expenditures on transport that could go to other critical needs. If schools are not nearby, it means less time for rest and play for children, less time for homework, less time for family life, and it may discourage attendance. Difficulty accessing such facilities as health care can mean less likelihood that children will receive routine preventative care, or be treated when they are ill. Easy and safe access to shops and markets is also critical. Not only does this save time; it can also provide a valuable opportunity for children. When shops are close enough for children to go and buy things, it can give them a valuable chance to interact with adults and to experience community life. Running errands can be an enjoyable way for children to contribute to the household.

Where location does not allow easy access to the amenities and services people need for a thriving community, the site should be adequate in size to allow for the construction over time of shops, school, child care and other vital facilities.

*Land tenure:* Most reconstruction is carried out on sites where people have been given secure title to the land. Tenure should always be clarified as far as possible however. There can be much uncertainty or even controversy where residents had customary titles, or where zoning remains uncertain. The anxiety of insecure tenure can be draining for families, and the need for security and stability is especially strong after disaster and displacement. Secure title also encourages individual and household investments in improvements and often investment in improving the wider community. In the case of temporary shelter on rented or loaned land, every effort should be made to estimate generously how much time this land will be needed.

*Basic services:* The ready availability of connections to water supplies, sanitation, electrical power, waste removal services and transport are vital considerations. On currently unserved sites, all of these may be promised. But over-burdened local governments may be slow to follow up. The implications for children's health, for caregiving, for quality of life, are critical.

*Risks:* Some locations may present day-to-day risks – a heavily traveled road to cross, for instance, or pollutants from a nearby factory. Some may carry longer term risks such as vulnerability to floods and other extreme weather events. When the potential for disaster risk reduction is considered, it should be with the capacity of children and their caregivers to respond properly (and also that of the elderly and people with disabilities or health problems.) These issues will be discussed further in the site plan section.

*In many temporary settlements in Tamil Nadu, fires have broken out, destroying hundreds of shelters. People have offered a number of explanations, but there is strong suspicion in some places that these fires have been started by frustrated landowners who had agreed to lease their land out for nine months or a year, but who found two years later that it was still not clear when people would move. In many cases, government was also slow in paying the rent. These fires are traumatic for all residents, but especially for young children. In many cases, they have been reluctant to move back into shelters with palm roofs, which can catch fire easily.*

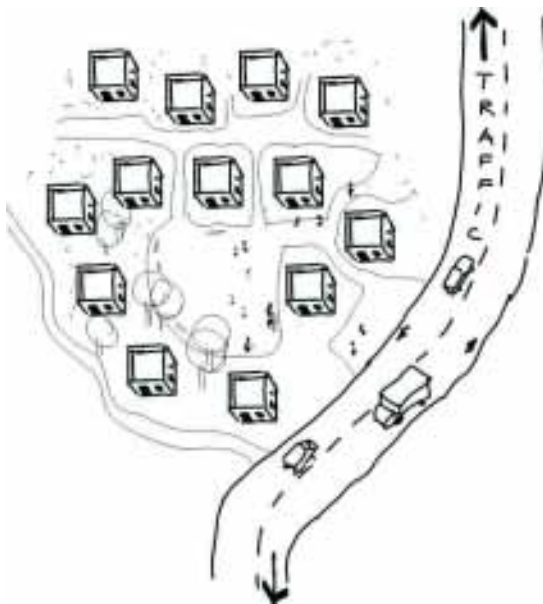
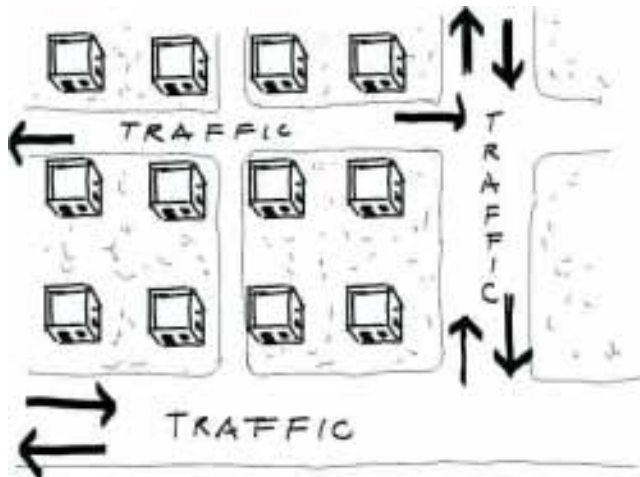
## Site plan

**T**he site plan is generally considered an engineering matter and not something that needs to concern the future residents. But some of the most important aspects of life are affected by the quality of neighbourhood space. A well planned site can compensate for many limitations in housing. The objective here is to consider all the factors that might limit children's mobility

and opportunities, or that might constrain positive social contact. As much of a site as possible should be made accessible and welcoming.

*Circulation:* Plans for circulation through the site can affect children's mobility, safety and security. If vehicles can move through at high speed, for

instance, children will be more limited in their ability to move around freely. If roads invite outsiders to pass through, rather than go around, people may feel less safe allowing their children to wander freely. Speed bumps can be considered, or a limit to the number of roads that allow through traffic. Pedestrian roads and pathways of different sizes can also be an alternative to a grid of streets of equal size. A circulation network of small, safe pedestrian lanes will encourage social interaction and child mobility, instead of inhibiting it. In effect, this will increase the amount of common community space. At the same time, there should be adequate access for emergency vehicles when they are needed, and for such functions as waste removal. These concerns are, of course, far more relevant to larger busier settlements. But even in small neighbourhoods, the arrangement of roads and pathways should be planned with children in mind.



*A circulation network of small, safe pedestrian lanes and pathways will encourage social interaction and child mobility*

*Topography and drainage:*

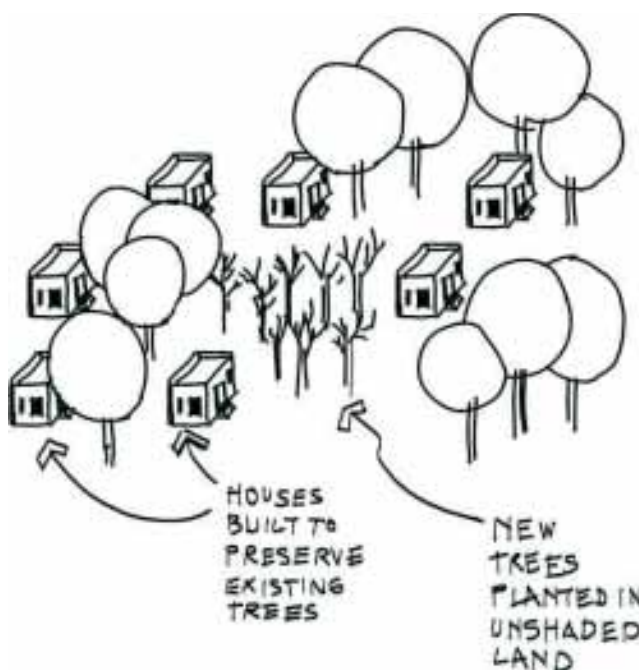
Effective drainage of a site protects health. Areas of standing water, even if only seasonal, provide

breeding places for mosquitoes and other carriers of disease. A lack of proper drainage also prevents optimal use of the site. There will be little point making a volley ball court for young people if it is muddy or under water for half the year. The site's topography may either facilitate or complicate drainage issues - and the tendency may be to simplify the situation by leveling everything. But some variation in topography can also add interest to a site, and can contribute to the quality of children's play. Topography can also be effectively used to buffer or shield the community from such unwanted features as factories, noise or high traffic.

*Vegetation:* Attention to vegetation is not just an "extra". Barren, unshaded settlements are uncomfortable and unattractive places. Research has shown that children with regular access to pleasant green surroundings are more likely to engage in creative play; they interact better with adults; they even do better in school. Adults are more likely to spend time outdoors and more likely to get to know their neighbours, they experience less domestic violence and they cope better with life problems.<sup>4</sup> These findings come from urban areas primarily, but it is quite reasonable to assume they would also apply in the context of many



*Topography can also be effectively used to buffer or shield the community from unwanted features*



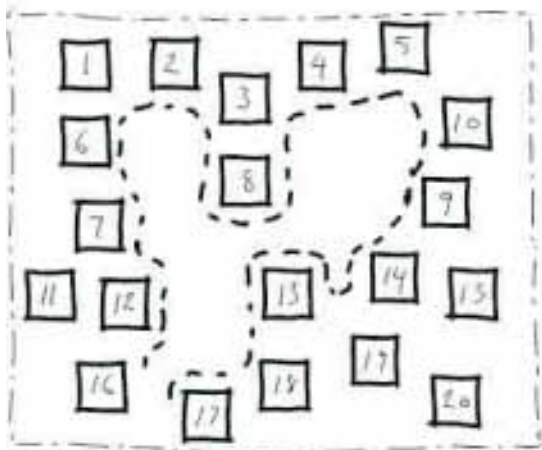
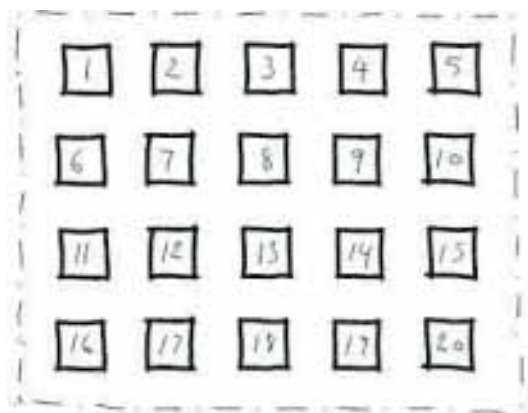
*Wherever possible, existing trees and vegetation should be preserved and built around. Where trees have been destroyed, leaving unshaded land, there should be replanting as soon as possible*

<sup>4</sup> For instance, see Wells, N. M. (2000). "At home with nature: effects of "greenness" on children's cognitive functioning." *Environment and Behavior* 32(6): 775-795;

Kuo, F. E., W. C. Sullivan, et al. (1998). "Fertile ground for community: Inner city neighborhood common spaces." *American Journal of Community Psychology* 26: 823-851.



A planned building site for several hundred houses in Poompuhar, Tamil Nadu, was a large area of barren rubble strewn land without a tree in sight. Children living in an adjoining temporary settlement, who would later be living in the planned housing, all talked about the desperate need for shade, and their desire to plant trees as soon as possible. In their minds, this was a practical and aesthetic necessity, but also an emotional need. "In the tsunami," said one young girl, "a lot of us were saved by climbing trees. We think it would be a good thing to plant trees here now." Children talked about how much they would like to start a plant nursery, so that plants would be ready as soon as they were needed.



*More organic arrangements can result in more "positive" outdoor space*

depressing sun-baked post-tsunami settlements. Wherever possible, existing trees and vegetation should be preserved and built around. Where trees have been destroyed, leaving unshaded land, there should be replanting as soon as possible – and this is something that can involve children.. Often adults are understandably focused on the need for replacement housing, and the quality of the site seems a less urgent matter. Children, however, are quick to point to the importance of trees and shade, and to long for these where they are absent.

#### *Allocation of private and common space:*

Decisions on the amount of land (and the percentage of the budget) to allocate to common use can have a significant effect on the quality of life for children. Shared space and facilities, centrally located, can provide a range of opportunities that no individual family can provide. Ideally, at least 5 percent of a site should be made available for shared facilities and space. The concerns raised by formally allocated common land and buildings will be discussed below after the section on housing.

#### *The placement of housing:*

Most new settlements in the tsunami region are arranged in a grid pattern on land that has been leveled and stripped of vegetation. This makes efficient, equitable use of the space available, and simplifies engineering concerns. But it is seldom the best arrangement from the perspective of the people living there. It fails to make best use of the natural features of a site or to encourage social ties. If people are involved in site planning, they are more likely to cluster houses in ways that reflect their social networks. These more organic arrangements can result in more "positive" outdoor space, and a settlement that is less monotonous and that



promotes more informal interaction. The careful arrangement of housing can provide small spaces close to home where young children can play and older people can socialize in the course of their daily activities.

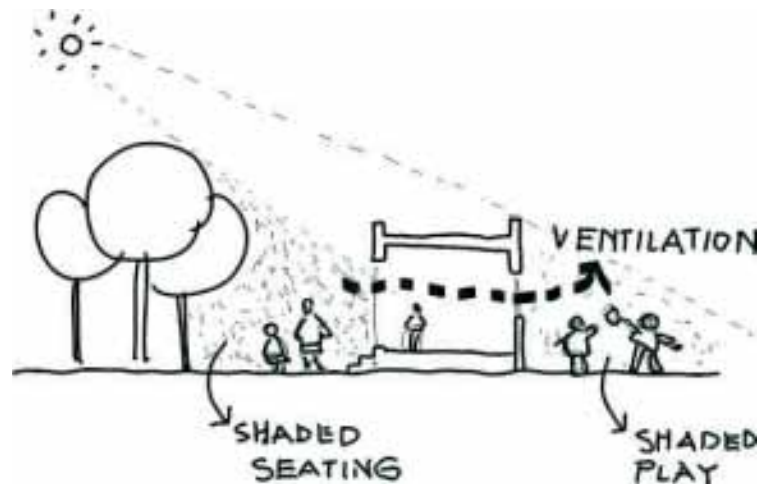
There is also tendency in many reconstructed settlements to assign people to their house. When people can choose to live next to those with whom they have close ties already, the transition will be much easier – shared childcare, for instance, is more likely to happen if people like and trust their neighbours. In the case of a very large site, smaller groups of residents should be able to plan their particular area together – a way to promote security and living patterns that enhance mutual support.

**Orientation:** Part of the placement of houses has to do with their orientation. This can affect the quality of light, temperature and ventilation within buildings, and so it is important for both health and comfort. Orientation is also important for social reasons, since it affects the degree of privacy and social interaction. There is also a cultural dimension to orientation in many places. In Tamil Nadu, for instance, people want the kitchen on the east side of the house. Traditional beliefs and practices in this regard should be explored and respected. Where adults feel more satisfied and comfortable around these kinds of issues, children will feel more rooted and secure.

**Hazards:** Any site should be carefully assessed by community for potential safety hazards, so that they can be removed or managed. Poisonous plants, broken glass, construction debris have no place in a children's neighbourhood. Bodies of water and open wells should be covered, fenced or well monitored. In more heavily trafficked areas, sidewalks or wide road shoulders can make a big difference to children's safety. In an "in situ" site, existing buildings which may have undergone damage should be carefully checked for their stability.



*In Tamil Nadu, people want the kitchen on the east side of the house*



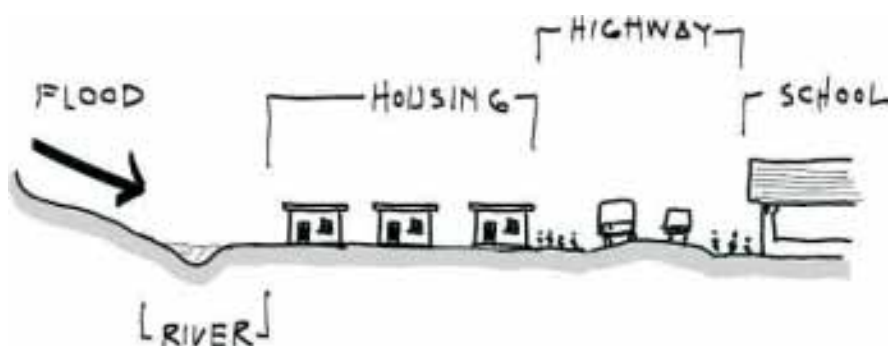
Local knowledge is critical in assessing hazards. To an outside eye, the tracks running along one side of Cooks Nagar looked like a serious hazard for children and something that should call for attention. To community members, however, the railway tracks posed no problem. Trains passed only a few predictable times each day, they moved fairly slowly, and they could be heard coming for a few minutes before they actually passed by. A lot of children walked home from school along the tracks, and were able, that way, to avoid the heavy traffic on the road. They clearly enjoyed walking the tracks, holding hands with a friend, and trying to see how long they could balance without stepping down.

When safety is being assessed, it should be clearly recognized that children do not always obey restrictions. In conflict zones, such features as road blocks, security posts and so on may also be regarded as unsafe places for children, and should also be taken into consideration in the layout of a site.

**Disaster risk reduction:** Measures for mitigating disaster risk at the local level, and for responding in the case of further disasters, will add greatly to the sense of security of both children and others. Planting with a view

to creating windbreaks or preventing landslides; creating channels to carry high water away from housing; ensuring that high ground (or rooftops) can be easily accessed, marking evacuation routes and developing warning systems are all activities that can productively involve older children as well as adults.

Rather than adding to



*A site should be planned to avoid these kinds of risks and hazards*

children's worry, this kind of involvement can make them feel a greater sense of security. A community's disaster response plans should always be made with the capacity of young children and caregivers in mind. It should be noted that a critical factor in the potential of any community to prepare for, or to respond to, disaster, is the social capital within that community. Any features that help to build social capital also contribute indirectly to the capacity to cope with future disasters.

**Facilities and basic services:** Many post-disaster rebuilding efforts assume the provision of piped water, sanitation and electricity at the household level. Where alternative arrangements are necessary, even if temporarily, it will affect children and childcare. For instance, the location of water points and the regularity of water supply will affect the time it takes to collect water, and the amount of water used by households, and hence the

level of health in children. The location and maintenance of toilets will also determine whether they are used by young children, and may affect the willingness of older girls to use them when it is dark. These issues must be discussed with community members to ensure the best possible solutions. Where shared solutions are unavoidable, efforts can be made to provide shaded seating places and a few play opportunities for young children by water points and community latrines, so that they become positive spaces for community life.

Waste collection is also a major issue for children – both for their health (since piles of waste can serve as breeding grounds for carriers of disease) and their play opportunities. Many communities without adequate waste collection services are likely to dump their waste in the very places children are most likely to be drawn to for play – open areas of land, alleyways, the backside of buildings and so on. Because of the nature of their activities, children are more likely than adults to make contact with waste and to run the health and safety risks associated with it. Discussion with the community must focus on the best ways to manage waste at the local level with an eye to the implications for children.

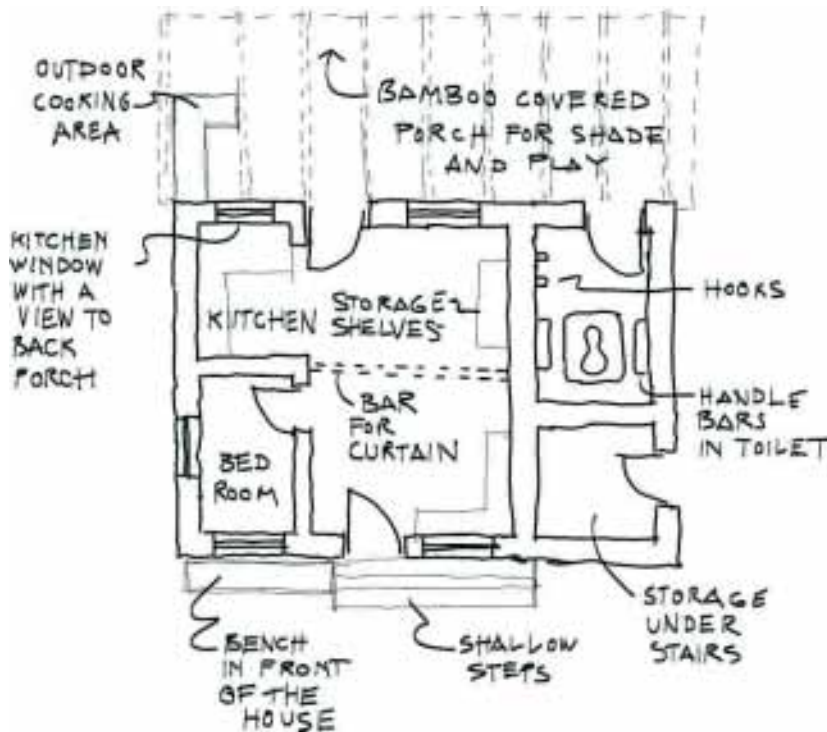
*In Cooks Nagar, the municipality had promised to run piped water to each house. But this was taking time. Meanwhile, people were fetching water from a few water points around the community, and storing it in their homes. Because these wells had become salinated by the tsunami, they went further afield for drinking water. One way or another, it took at least half an hour a day to fetch water, and much longer during the dry season.*



*Because of the nature of their activities, children are more likely than adults to make contact with waste and to run the health and safety risks associated with it*

## House design

In most of the tsunami region, housing design is affected by a combination of limited resources and strict construction standards for disaster risk reduction. Size, basic structure and materials are likely to be largely predetermined. There may be little possibility for major alterations. However, if an organization or contractor is flexible and responsive, even a standard house model can leave room for modifications and adaptations to individual



*Small details and changes, such as the ones shown in this sample house plan, can improve the lives of all occupants significantly*

household needs. Many of these can have a significant effect on children's experience and on the quality of family life and caregiving. Health, security, convenience, privacy and dignity can all be affected. So, while all of the following areas may not be possible to consider, choices should be discussed wherever it is possible.

*Familiar design and materials:* Sometimes, reconstruction after a disaster can be seen as an opportunity for innovation and experimentation by professionals eager for an interesting challenge. But people who have survived a disaster are unlikely to want innovative or experi-

mental houses. Their tendency is to want what is familiar and accepted in the local area. They usually want to fit in – not to feel that they are identified as victims by their housing.

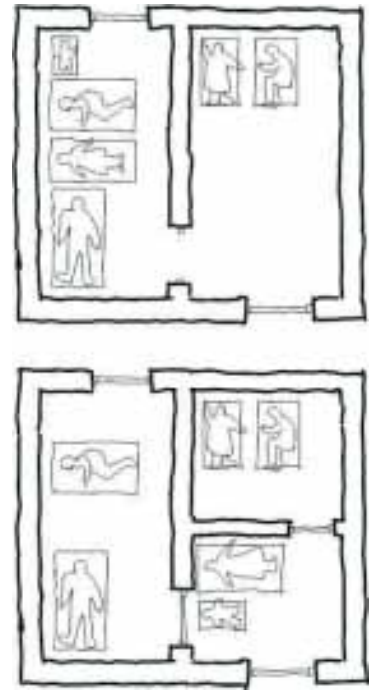
*The quality, durability and suitability of materials:* In much of the tsunami region, large scale rebuilding has led to shortages of building supplies or increased prices, which in turn can mean the increased use of shoddy, low quality materials. In this part of the world, climatic conditions are harsh and second rate materials can deteriorate quickly. This can mean safety issues that may affect children in particular. Splinters can get into small hands and knees, abrasions can cause infection, and a cracked stair tread can mean falls and broken bones. There may also be more serious issues at stake when construction standards are compromised in this disaster prone part of the world. It is also important for materials to promote comfort. Building standards for reconstruction stress materials and construction standards that will withstand extreme conditions. But comfort in a hot, and often very wet, climate must also be considered, especially for those who are most vulnerable to extremes, like small children and old people.

*Adequate space for family life:* The amount of covered living space per person affects privacy, practical convenience and health, with implications for all family members. But young children, with their greater vulnerability to communicable disease, may be especially affected by overcrowded space, as will older children who need quiet space for study. Children will also be affected when adults lack space for privacy. Overcrowding is known to result in irritability and social tensions, but it can also contribute to an increase in abuse of various kinds. The size of the household should, if possible, be a consideration in determining house size.

*Internal divisions:* Where covered space is necessarily limited by resources, the way this space is arranged and divided can make a big difference. For instance, three very small rooms that can be used for sleeping may be preferable to two larger spaces for families with both boys and girls, or with extended family members. The internal division of space cannot be adequately planned without family consultation. Even very simple modifications can allow for more flexible use of space – for instance, a rod that makes it possible to draw a curtain across a room can allow a young girl some privacy when she dresses.

*Transitional space and the relationship between indoors and outdoors:* Especially in a warm climate, many daily routines can take place in space that is not technically indoors, yet also not part of public space. Such transitional spaces as covered porches, wide entry steps, rooftops, vine covered trellises, or palm covered lean-tos can be valuable additions to overall living space, and make it possible to reserve indoor rooms for greater privacy. This kind of transitional space can be especially valuable for the play of small children – outside, but still not away from home and supervision – or for older children to study or socialize.

*Design for incremental building:* All housing should allow, as far as possible, for modifications or incremental building over time. This way, as resources permit, as children grow older, or as other new needs come up (for instance, the establishment of a home-based business), families can adapt a core house to suit their needs better. Foundations should be strong enough to support the weight of an additional storey, and reinforcement rods should be easily accessible.



*Three very small rooms that can be used for sleeping may be preferable to two larger spaces*





*A low cost lean-to may become a functional kitchen, or serve as a quiet study space for children*



*Some shelves should be high enough to keep things out of children's reach – others should be easily accessible to them*

Often, domestic needs can be well met in space that is not built to the same quality as the core house. A low cost lean-to, for instance, may become a functional kitchen or serve as a quiet study space for children, but will cost far less per square foot than the core house. It will be much simpler to build such additions if it is easily possible to connect to the existing structure (for instance, through easily accessible lintels or reinforcement rods.) When such modification are planned, it should be with an eye to promoting the safety of later additions.

**Storage:** Adequate storage space is critical in making optimal use of existing floor space, especially when a house is small. Well placed shelves, lofts, rods (for hanging things on) and hooks can, in effect, double the usable space in a house, getting a family's possession up off the floor. Storage for items that children use should wherever possible be placed within their reach. But some items should be stored well out of their reach for safety reasons.

**Safety and security:** A vital consideration for disaster survivors is their need for a house that offers maximum security. This is true both in social and physical terms. In the tsunami area, for instance, people like to know that they can escape quickly to their roof tops, and look outside easily to see what's going on. But they also want houses that feel secure against intruders. Many temporary houses, after the tsunami, remained empty because people felt very vulnerable to outsiders when flimsy materials were used.

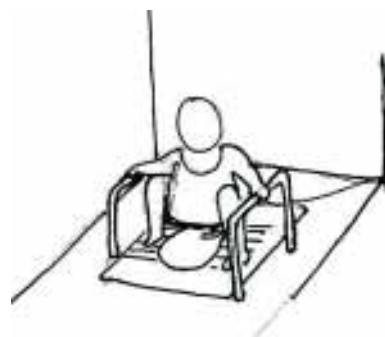
Day to day safety for children is also a critical consideration. There should be lockable storage space for medicines and anything poisonous (like pesticides or kerosene). Electrical outlets should be out of small children's reach, or else safely covered. Cooking surfaces should be built high enough to prevent them from touching hot pans, turning on gas knobs, or upsetting flimsy kerosene burners. Open fires should be placed where children will not stumble into them. It should be

possible to store buckets of water high enough so that small children cannot fall into them. High places, like rooftops or lofts, should be kept inaccessible, unless they are adequately protected and supervised removable gates can work well. Stair railings should be close enough together so that children cannot squeeze through or get their heads stuck. Exposed reinforcement rods should be covered if they are where children can run into them.. In any household or community, the safety risks specific to that location need to be identified.

*Adequate water and sanitation:* Piped water and flush latrines or toilets throughout the community are the only sure way to protect children from sanitation-related illnesses – chiefly diarrhoeal disease, skin and eye infections and worm infestations. Only when water is piped to the house are caregivers sure to use as much as they need to protect children's health. And only when all community members use adequate toilets, can people avoid the inevitable contact with human excrement that occurs when defecation happens outdoors. Piped water also avoids the need to store water – and stored water easily becomes contaminated, especially in households where there are young children with dirty hands. When in-house water taps are not an option, houses should have closed water pails with a spigot, to avoid contamination.

But even piped water and flush toilets will not eliminate problems if they are not used. They have to be easily accessible and acceptable to children. Many small children do not like to use latrines; they are fearful that they will fall into the hole. It is easier to continue to squat outside, and for caregivers to clean up the mess. But the risk of infection goes way up with this practice. Bars beside the latrine for children to hold onto can make a difference, and communities may have other good ideas. It should also be very easy for children to wash their hands right outside the toilet - where faucets are installed, they should be at a height children can reach.

*Proper ventilation:* Adequate ventilation, especially in crowded conditions, can decrease the spread of communicable disease and increase comfort levels in a hot climate. High ceilings and circular fans also keep things cooler and help everyone to sleep better. This is important to the health of children and adults alike. Proper ventila-



*Bars beside the latrine can make it less frightening for small children to use*

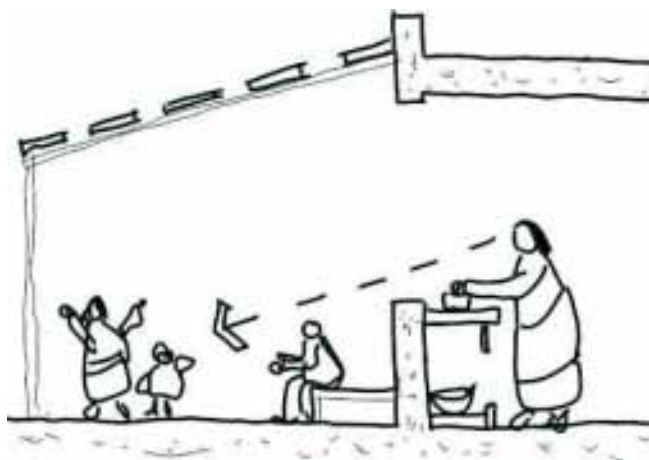
*In Cooks Nagar, when the idea of support bars in latrines was introduced, people immediately pointed out how helpful this would be for older people with painful joints. This is a good example of the way an environment designed with children's needs in mind may end up benefiting other people as well.*



Often, new kitchens are designed for the use of bottled gas in cooking. But this is not always available or affordable, and people may end up using local biomass fuel. In one new child care centre in Tamil Nadu, for instance, cooking had to be moved outside to an open fire because no bottled gas was available – a hazardous solution with twenty or more young children running around. In a home or a day care centre, with proper venting, or a safe place to cook outside, the fuel issue would not be a problem.



Hooks can be set in the ceiling to allow mosquito nets to be easily hung in every room



Windows in the kitchen make it easier for caregivers to watch playing children

tion also includes the proper venting of cooking stoves, regardless of what fuel they use – but this is especially important with open fires. Smoky interiors are one of the leading causes of acute respiratory illness, still the number one killer of children under five.

*Protection from disease vectors:* Disease vectors are insects, mites or animals that cause or carry disease and pass it on to humans. Mosquitoes, flies and rats are some examples. (Also important are insects that bite, even if they do not cause disease.) A

clean, adequately drained community environment minimizes the number of disease vectors. But attention needs to be given to this problem within homes as well. Proper storage for food is essential to deter rodents and flies. Even where refrigeration is not available, for instance, well ventilated screened food storage closets can be simply made, ideally on the coolest side of the house. Hooks can be set in the ceiling to allow mosquito nets to be easily hung in every room.

*Play for small children:* Small children and caregivers like play to happen close to home, where children are within sight and hearing of their caregivers. This desire for children to be nearby appears to be especially strong after a disaster. The design of the house should make this as easy as possible. In order to for children to play outside or to run over to a close neighbor's house while caregivers are cooking, for instance, it is important to have windows in the kitchen that make it easy to maintain this connection. Some caregivers prefer to have the kitchen outdoors, so that they can more easily supervise children. Steps leading out of the house should be as wide and shallow as possible, thereby turning a potential hazard into an extra play space. Covered porches or extended overhangs over steps can also allow these transitional spaces right by the house to be used for play even in rainy weather.

*Cultural considerations:* Housing has to serve cultural as well as practical and emotional needs. In Tamil Nadu and parts of Sri Lanka, for instance, Hindu households feel the need for a puja room where they can do their daily worship, separate from other activities, and especially from menstruating women. For many people who have never had indoor toilets, this can also be a cultural issue, causing concern about the proximity of excrement to the living space. Culture is dynamic however. Many Hindu households in the region accept that a curtain drawn in front of a puja shelf is a solution where a room is not possible. And over just a few months, people in Nagapatinam, Tamil Nadu, went from wanting the toilet to be accessible only from outdoors to seeing the convenience of having the door inside the house. Such issues, however, should always be discussed, and people's suggestions and solutions taken seriously. Families are more likely to feel comfortably settled if they have been able to adapt in their own way to new conditions rather than being forced to accept something that feels unfamiliar and distasteful.

*The important role that culture can play became evident in people's responses to permanent housing in Sri Lanka and Thailand. Although climatic conditions were very similar, people in the two countries wanted very different solutions. In Thailand, they wanted open houses up on stilts made of wood and bamboo, to catch any breeze, while remaining above high water in flood conditions. They viewed masonry houses as dark oppressive caves. In Sri Lanka, people were very uncomfortable in temporary shelters made of wood and bamboo, and wanted the security of a solid masonry construction. The conflict certainly played a role here, but people said that even before the conflict, they preferred the privacy of masonry houses.*

## Common spaces

**S**hared community facilities – both buildings and common outdoor space – can go a long way towards making up for limitations in housing and can be an important component of the kind of vital, active neighbourhood life that makes such a difference in the lives of children and young people. Some of these spaces may be more formal community arrangements – recreational facilities or space for community meetings and gatherings, for instance. Some may be shared space on a smaller scale – a courtyard between several houses where children play while mothers chat, a bench along a pathway, or a favourite tree where people like to gather. But whatever the scale, any space that encourages positive social interaction contributes to children's growing need to engage in the world outside of home. A neighbourhood that provides this kind of secure local space allows children to test and develop their competence in all kinds of important ways, and to feel a sense of belonging within a community.



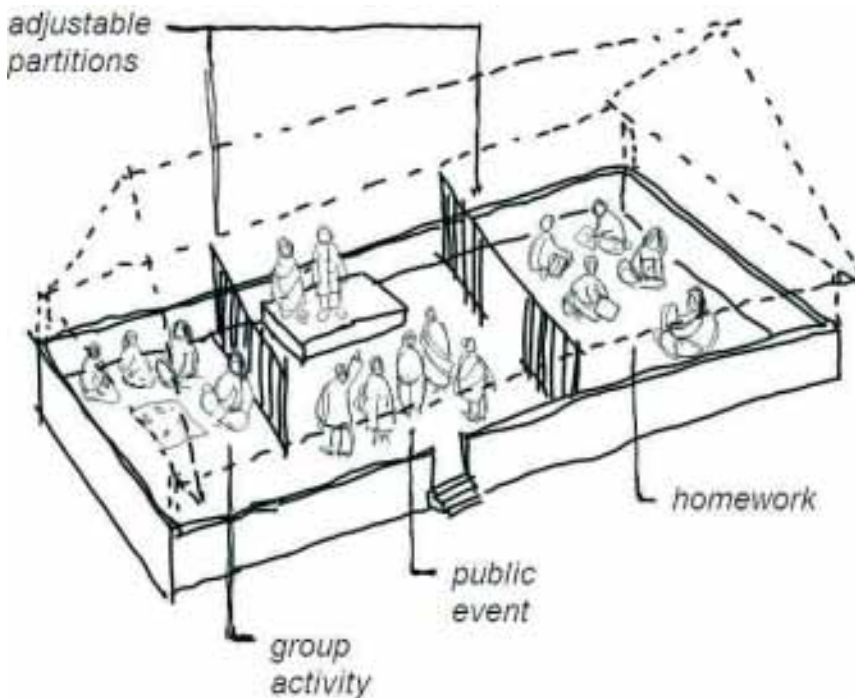
*Having a place to sit while waiting for water or the latrine makes life easier and pleasanter*

Even where it is not possible, for whatever reason, to involve community members in the more general budget process for rebuilding, it should be feasible to set aside any resources that are available for the development of community space and common facilities in a separate community controlled

fund – with the proviso that decisions be made through a representative process that includes children. This will give the community the chance to discuss the pros and cons of different solutions within a realistic framework, and will enable them to make best use of the available resources.

Here we will discuss not particular kinds of space, but the range of functions that will ideally be met in common areas, and some spatial qualities that can facilitate those functions. Whether people meet in a large shared building, a local school or under a plastic canopy; and whether children play in an open

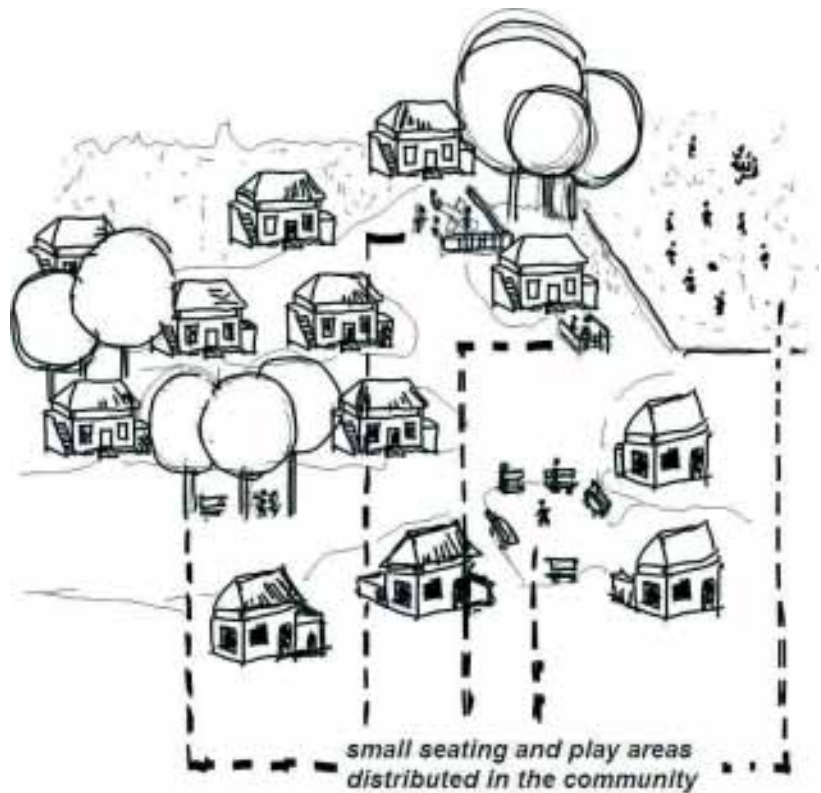
field, a planted grove of trees or a formal volley ball court, depends on the space, resources and ingenuity of a given community. It is important to note that few of the functions described here require a special space for that function alone. In most cases, it works well to combine functions. A space for festivities can also serve as a meeting place and a place for children to do home work. Play space for small children can also be a place where adults can sit and socialize.



*In most cases, it works well to combine functions*

*Keeping adults in mind:* Many of the features and functions described here will appear to be as much geared for adults as for children. It is important to keep in mind that a neighbourhood only works well for children if adults are also part of the general landscape. This does not mean that adults have to be present for everything that children do. Not at all. Children and young people, at times, just want to be with their peers, and this is quite appropriate. But children don't like to be segregated from the life of a community. Small children are happiest when they can play close to their caregivers. Older children love to sit on the sidelines and listen when their elders discuss interesting things. Children's excitement during a celebration or festivity has as much to do with their desire for belonging as it does for the special food or activities. So when we talk about common space, this needs to be space that pulls adults out of their homes and into the community, not just children.

*Central space:* The tendency is often to start thinking about shared facilities only after housing has been taken care of. This can often mean peripheral locations for the very activities that should be most central to community life. Wherever possible, as mentioned in the site plan section, space that is allocated for common use should be placed as centrally as possible. There are a few exceptions. In a large settlement, play space for small children should ideally be scattered through a community so that it is easily accessible to all. And larger recreational facilities, like space for cricket or football, may be more reasonably placed towards the edge of things.



*Play space for small children should ideally be scattered through a community so that it is easily accessible to all*



*Vegetation:* We already have stressed the value of green shady space throughout a settlement. But formally allocated common space can be a good place to start, ensuring that here at least, people will have a shady cool attractive place to go to as soon as possible. It should also be possible to plant trees and vines here without getting in the way of the construction of housing or infrastructure.



*Ideally, every community should have some space large enough to accommodate everyone*

*Space for community meetings, gatherings and other joint functions:*

A strong, functional community, one that can work actively together to meet its children's needs, is a community that meets and discusses things. Suitable space is essential to this. Ideally, every community should have some space large enough to accommodate everyone. Where covered or enclosed space is not possible, some space outdoors should be reserved for this function.

*Space for gatherings and festivities:* Community life is also about celebration. Marriages, special festival days, and other important occasions are also facilitated by having a place for celebrations. It can save hard-earned money not to have to rent space away from the community for special occasions.

*Organized events for smaller groups:* Visiting clinics, savings groups, job training workshops, early childhood centers and other organized services and events become far more feasible if there is a local space where they can easily take place.

*Homework space:* Especially in communities where houses are too small or too crowded to accommodate a number of activities at once, the availability of quiet, well-lit space where children can do homework for

school can be a big issue, and one that can sometimes be more easily dealt with at the community level. Supervision may be a concern, but is something community members should be able to work out among themselves.

*Space for informal socializing:* Informal interaction is as important to community life as organized functions. This can happen anywhere, of course – along a pathway, on a back step, under a tree. But the easier and more comfortable it is for people to get together and chat, share child-care, play caroms, discuss problems, the more likely it is to happen. Shady spots, benches, the proximity of tea shops, laundry space or a place where small children like to play, will all help to encourage people to come together outside of home. This can relieve family pressures when the home is overcrowded, and it helps to build the social ties that are the glue for a strong community.

*In Cooks Nagar, as in many South Asian communities, most children were being sent out for extra tuition classes every day. This posed a considerable financial burden for families – but also denied children the time they needed for relaxation and recreation. Nor was it clear that children gained academically from this service. When the community discussed a shared building, this was one important function they felt it would meet. Many parents said that if there was a quiet place where children could study, they would not send them out for extra classes.*



*Space for informal interaction can relieve family pressures when the home is overcrowded, and it helps to build the social ties that are the glue for a strong community*

*Younger children's play:* Small children most often play close to home. But the availability of common play space not too far away can expand possibilities for them, and especially the chance to be with other children. Providing for their play does not call for expensive equipment. In fact, when equipment is inexpensively produced using local materials, it is less likely to be vandalized, and easier to replace when it becomes boring or dilapidated. Providing equipment that serves the needs of just a few children at a time,

while taking up considerable space, (like a see saw or a set of swings) is less ideal than creating more flexible opportunities that more children can use at once.

Young children's needs are simple: physical and social safety, a varied, stimulating environment, easy access to other children, and trusted adults nearby. Small children like things to climb over, crawl under and jump off; places where they can hide or withdraw; a flexible environment and the availability of "loose parts" like sticks, stones, plastic bottles, containers, boxes, water, sand. Many materials left over from construction can be ideal for these purposes: sand for a sand box, a balance beam made from a warped piece of lumber, stepping stones made from bricks or blocks. Vegetation can help provide interest, diversity and appeal in a limited space. In a larger community, as noted above, many smaller common play spaces close to home, with places for caregivers to sit and chat, make far more sense than one larger children's playground at a distance.

As children get a bit older, they tend to need more space and more challenging activities, and can go further from home and adult supervision. Even at this age, elaborate provision is not necessary. A large enough space to

kick a ball around, to play running and chasing games, to play with bicycles and carts; space for smaller games like marbles or jacks; space for quiet times or pretend play, all are important. These needs can be met informally throughout a settlement, and every community should ensure that the general surroundings are safe enough to support a range of activities. But it can also be helpful to make specific common provision for the kinds of activities for children that the neighbourhood at large does not allow for. The important thing is that assumptions not be made about what these activities are. This should come from the children.



*Young children's needs are simple – a varied environment, easy access to other children and trusted adults nearby*



*Recreation space:* Older children, and boys especially, are generally drawn to games and sports that require more space. Provision for such games as cricket, football or volleyball may be more challenging where space is limited. In larger communities it is generally possible to allocate the space for favoured activities – but otherwise it may be necessary to turn to school grounds, and to encourage schools to open their facilities in out-of-school hours.

*In Periyatheru, a flood-prone village with virtually no common space, children were frustrated by the difficulty in locating a place for active sports. In discussion with adults, it became clear that the concrete pad used for threshing grain might serve as a good site for badminton, volleyball and other games during the times when it was not being actively used for threshing. But it would mean some responsibility on the part of children not to disturb the piles of unthreshed grain.*

*Girls as well as boys:* When plans are made for recreation, they often focus on boys and ignore girls. But girls have an equal need for play and companionship, even if their preferences do not always take the same form. It's not uncommon for girls to be far more restricted because they are busy working at home, or because it is considered inappropriate for them to socialize in public space. This doesn't mean that they don't want opportunities outside of home. But they may want more quiet, private spaces where they feel comfortable getting together with each other – or special times when they know they will not have to compete with boys or men for the use of recreational facilities. This will depend on the situation within individual communities, and on the preferences of particular groups of girls. But these needs must not be overlooked. It is important not only to protect girls from social dangers, but also to protect their right to socialize and relax with friends, and to be full members of the community.

*In Cook's Nagar, older girls made it clear that, while they liked the idea of shared community space, what they really wanted for themselves were small, quiet places scattered throughout the community where they could go to chat or do their homework with friends, without having to compete for this space with boys.*

*Common space for all – a place to respond to exclusion of various kinds:* It is the rare community that does not engage, whether consciously or not, in various forms of exclusion and discrimination. The planning and use of common space can be an excellent focus for explicitly addressing these issues in a concrete way. This can lead to greater awareness in other areas of life.

Those with disabilities, children or adult, can be responded to in specific ways in the planning of common space – whether this means a building that is accessible, or play opportunities that are designed for a particular child's capacities. Ensuring that those with disabilities also have access to common space is a way of addressing their inclusion in community life more generally.

For groups that are marginalized for reasons of caste, religion or ethnicity, the very concept of a space that is for everyone can be a productive way to challenge established norms and encourage discussion and awareness. Experience shows, for instance, that discrimination can begin to break down when children have the chance to play together.

*Commercial space:* Shop and markets are a vital part of community life. Where they are not available in near neighbourhood, a community may want to think of ways to encourage the establishment of small local enterprises.

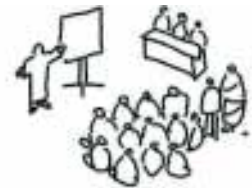
# How?

**T**he involvement of local men and women, boys and girls, is essential for ensuring the quality and practicality of design and construction. It also increases people's confidence and strength as they struggle to deal with the devastating social, psychological and economic effects of a disaster. The participatory process can give people a sense of control over their lives and strengthen bonds within the community. But how exactly are priorities established, solutions developed and decisions made?

Genuinely participatory processes can be complex to set in place, especially after disasters, when those providing assistance are often reluctant to "complicate" and slow down the construction. But compared to the huge amounts of time lost through logistical complications, legal issues and the like, a well-organized participatory planning and design process can be quite efficient. Rather than being viewed as an extra, it should be seen as an integral part of the planning process – and a reassuring "reality check" for those with the responsibility of making difficult decisions.

The process will vary from place to place, and there are few hard and fast rules. But some basic approaches can be kept in mind and adapted to the situation. Although these approaches are presented here as stages in a sequence, they should not be seen as rigid steps that always take place exactly in order. A truly responsive process is never neat and tidy, and there will be plenty of overlap. Developing good working relationships with local government, for instance, is presented as preliminary "groundwork", but it will probably still be happening even as children and adults are developing their plans.

In order to keep these guidelines from becoming too abstract and generic, they are accompanied by examples and by descriptions of particular participatory tools that will be useful in many situations. These examples are taken from the Cooks Nagar settlement in Nagapattinam, Tamil Nadu, where a planning workshop, supported by Save the Children and the local NGO SEVAI, took place in November 2006. The four basic stages of the process are: laying the groundwork; gathering information; hands on planning; and implementation and follow up.



1. LAYING THE  
GROUNDWORK



2. GATHERING  
INFORMATION



3. HANDS ON PLANNING



4. IMPLEMENTATION  
AND FOLLOW-UP

*Cooks Nagar is a small settlement in the town of Nagapattinam on the coast of Tamil Nadu . It lies near the seashore – about 300 meters inland – and is home to about 360 families, primarily of petty traders and day labourers who support the local fishing industry. It was a poor community before the tsunami, but not destitute. Some families lived in small masonry houses, others in more basic palm thatch huts, and many in some combination of the two. Right after the tsunami, a local NGO, SEVAI (Society for Education, Village Action and Improvement), provided some emergency support to the community – food and other basic needs, thatch for immediate repairs and loans for community groups, as well as some livelihoods assistance. In the course of this assistance, their staff became familiar with the community.*

*According to the coastal zoning regulations, only those who owned land in this community could rebuild on site. Others had to move to a new site a few kilometers inland. SEVAI found that a total of 62 families were eligible for support for on-site rebuilding. Meanwhile they lived in temporary shelters next to their damaged or destroyed houses, or doubled up with other households. SEVAI received funding to rebuild 23 of the damaged and destroyed houses, and later approached Save the Children for funding for the remaining 39 houses.*

*Who is being rehoused?* The organization should find out as much as possible about the people involved before attempting to support a community planning process. Who are the prospective residents of the reconstruction site? How are they regarded by local government? Are they still in or near their original settlements? Have they lived together in the past, or been thrown together by the situation? Are there different caste, ethnic or religious groups? A range of income levels, or educational backgrounds? How do these different groups get along? What is the role of women within the community? Young people and children? An awareness of any undercurrents, especially in more fractured communities, is essential to a productive process.

*What is possible?* In any situation, practical realities define what is possible. They should be clear so that expectations are realistic. Funders' conditionalities affect what can and can't be done, as well as state or national regulations and zoning codes. The coastal zoning codes put in place after the tsunami, for example, added endless complexity to projects in many places. But there may be other more local constraints as well, and it is important to be as informed as possible. For instance, how are zoning regulations interpreted or acted on locally? Do different actors have the same understanding of these regulations? Are changes in government at different levels likely to lead to regulatory changes? Are land titles secure? Is the available funding sufficient to implement plans, given the local constraints? Where relocation is necessary, how does the community feel about the new site? What difficulties might there be in sourcing materials?

*Knowing the players:* National and local government, international donors, local NGOs, contractors, suppliers and the community itself all have a role in the way a settlement is built or rebuilt. It is important to establish their respective roles, responsibilities and capacities, and to establish good

working relationships. Ideally, representatives from the community should be closely involved in the development of all these working relationships, so that community members are not viewed by any of the players as just passive "beneficiaries".

Ideally, partner organizations or contractors handling reconstruction will have years of experience in the sector, both in development work with communities and in all aspects of construction, and a track record that confirms their skills and reliability. But this is not always the case. It's important to determine whether they will need support in any aspect of the job – whether it be meeting engineering standards, ensuring the timely supply of high quality materials, keeping good records, or relating positively to community members.

It's also important to examine the donor organization's relationship with the local partner, and to weigh its capacity to support, guide and monitor the process.

*SEVAI had long experience up and down the Tamil Nadu coast supporting education, housing and local development, and so had the kinds of connections with local authorities and with suppliers that would not have been possible for more recently established NGOs.*

*SEVAI and Save the Children had also developed a relationship already. Right after the tsunami, SEVAI collaborated with SC in distributing family relief kits and building some temporary shelters and childcare centres. They had also discussed a partnership for the construction of 360 new houses further up the coast, but SC had concerns about its own capacity to steer and support a project of this size.*

*In the end, SEVAI made use of another opportunity to secure funding for this project, but later approached SC with a new proposal – that together they would develop a model process for developing "child friendly" housing through the reconstruction of the 39 houses in Cooks Nagar. SC was confident in SEVAI's capacity and experience in this area, and their willingness to explore what it meant to plan housing with children in mind. And so the deal was closed.*



*A diagram of the players in the Cooks Nagar reconstruction*

Before this process began in Cooks Nagar, most of the key planning decisions had already been made. Since this was an in situ project, location was not an issue, and most aspects of the site plan were already determined. With regard to housing design, SEVAI had come up with three possible plans, all of which met the strict engineering and construction standards for disaster risk reduction, but varied in terms of cost.

The least expensive was a simple pitched roof structure in which two houses shared a common wall; a second was a two storey building which could house a family on each floor. But local residents had made it clear that they preferred a freestanding house which would limit the potential for tensions with neighbours. This model was considerably more costly than the other two, but community members had no real incentive to choose a more economical model. If it had been clear that spending less on housing would mean that the community could use the savings for other needs, this would have represented a real choice. But it had not been customary for SEVAI to involve communities in budget decisions around reconstruction. It is understandable, then, that the most expensive house model would have seemed to be the most rational choice on the part of communities.

Despite the relatively higher cost of the selected house design, SEVAI had managed to reserve some part of the budget for the development of community space and other contingencies.



*What level of community decision-making is possible?* In many cases, critical decisions may have been made up front, before an organization even enters the process – for instance, the location of a site, the people who will be housed, the facilities that will be available, even the site plan. In any situation, it is important to determine the possible scope for involvement by local residents, and the possible outputs of the participatory process. Community members may be involved in every phase of decision-making, or their participation may be far more limited – for instance, coming up with the design for a specific community facility, such as a day care centre, or developing a list of options that households may draw on in modifying a basic house design.

The way that budget decisions are made is fundamental here. Full participation would involve a transparent budget, and would allow community members, through representatives when practical, to debate spending choices – is money is best spent, for instance, on more elaborate housing, or on more shared facilities? Should there be one basic housing model, or a number of options?

Even where full involvement is difficult, some part of the budget can be set aside as a discretionary fund for allocation by the community – for instance, in the construction of the community's common space. It is an excellent idea, also, to keep some funds available (perhaps five to ten percent of the total budget) for individual households to make the kinds of changes and modifications to their houses that seem necessary after



construction is complete, or for the community as a whole to use in making additional improvements to the site. It is only when people actually start to use a place that many of the problems become evident.

*Finding adequate facilitation:* Especially when community members have little experience of joint planning and decision-making, skilled facilitation is key to a productive process. Ideally, facilitators would be from the local community, or at least very familiar with it. But not every local organization has experience in participatory planning, and there may be a need to involve outsiders. The more fully local staff has been able to lay the groundwork, the more efficiently outside support can be used over a relatively short period, and then productively built on.

Whether facilitators are local or from outside, there are some critical requirements:

- They should have an easy, friendly, open manner and be able to put people at ease.
- They should be good listeners, genuinely interested in what people have to say.
- They should be able to manage a group and ensure that everyone's views are heard.

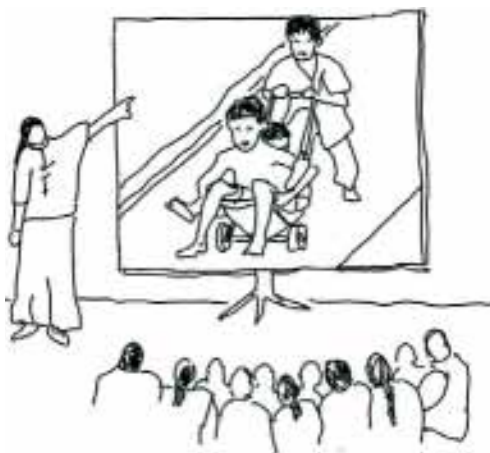
But most of all, they should trust the knowledge of local people and the capacities of children. They need to recognize and acknowledge that they do not know as much about the issues and concerns that affect the community as do community members themselves.

Local people regularly come up with solutions as practical as those of any trained expert, and they are often more ingenious. Willingness, sensitivity and a belief in the process are the most important traits for any facilitators, and will help to ensure a productive, trusting working relationship.

*Because neither SC nor SEVAI felt really clear about what the creation of a "child friendly" settlement might involve, they decided to bring in outside support to run a training session for staff members from Save the Children, SEVAI and other partner organizations from the area. The planning workshop with the community was a chance for these staff members to learn hands on about a participatory process that included both children and adults. This meant that there was a large team of people who could help with various aspects of the community process, and it was possible to accomplish in four or five days what might have taken a small team much longer.*

*The workshop process was preceded by a week-long visit to the site by two of the facilitating team to develop a realistic plan for the workshop and training, taking into account, among other things, people's schedules and general availability. The visitors met with SEVAI staff, were shown around the site by local children, visited with families, and spent time in the houses that SEVAI had already built, a number of which were soon to be moved into.*

A big community meeting conducted after the end of the workday allowed many residents to hear about the participatory work that would follow over the coming week. The head of SEVAI and local leaders within the community led this meeting, and introduced the facilitators. This helped to establish the legitimacy of the process in the eyes of the community and to demystify it. It also ensured that these important local figures felt invested in the process. A short PowerPoint presentation had been prepared before the meeting, using photographs primarily from India that highlighted the relationship between the physical environment and the well being of small children. In particular, it pointed to the connections between the quality of the surroundings, children's free play and their intellectual development and capacity to succeed in school — an issue of real concern to parents. The head of SEVAI, who had helped to select photographs for the PowerPoint, presented it to the community, elaborating on the text in some detail.



Both this meeting and all subsequent gatherings went smoothly largely because the support team — staff from SEVAI and Save the Children — was so effective in working out all the logistical details. Because the facilitators wanted to keep the process as flexible as possible, it was not possible to plan more than a day ahead at a time. Nevertheless, the support team managed to arrange small and large gatherings so that they were as convenient as possible for community members, to make sure spaces were available for this, and to have materials and equipment ready when needed. Even when there was a downpour just before the final meeting with the community, they saved the day by arranging for the use of a large unfinished structure nearby. Although it had no walls, the roof had just been finished, and everyone was able to keep dry.

### *Establishing a transparent, accountable process, and managing expectations:*

Right after a disaster such as the tsunami, many "experts" from various aid organizations and government agencies visit the affected areas. They walk around, taking photographs, and sometimes talking to residents. But they seldom explain their role or mission in concrete terms. So it is not uncommon for various "myths" to evolve, and for people to develop unreasonable expectations of aid.

The organization should ensure, from the very first contact with a community, that its intentions are made as clear as possible. This can happen through small meetings with local leaders or groups, through house to house visits, or through larger community meetings. It should be made clear exactly what the scope for involvement is on the part of the community, and what some of the potential outputs might be. Children should be included as well as adults.

### *The importance of logistical details and support:*

No facilitating team can be successful without significant support. Details that may look insignificant can actually be crucial. Depending on how large the group is, and where meetings take place, transportation may need to be arranged, lunches may need to be served. The resourcefulness of local organizers to make these things happen should not be underestimated. It is also important to have support for the many practical tasks involved (cutting design templates, organizing materials, setting up a projector and so on.) Especially when there is a reliance on technology, it's a good idea to have some technical support person just in case when the computer refuses to boot up or a projector does not turn on. Various graphic materials are also critical to a successful participatory process — pens, coloured markers, large sheets of paper, rulers, scissors. In hard hit areas, these may be difficult to find locally, and it can save time for facilitators to bring along basic supplies.

*Coordinating with and involving other professionals:* When the planning project includes such components as site selection, housing design, design of community space and so on, this will affect the overall construction process, and it is important to coordinate with the professionals who normally make these decisions. These architects, engineers and planners are likely to be familiar with the culture, the local environment, construction methods and local materials, and they can be an important source of knowledge. On the negative side, they are usually accustomed to operating as "experts" and may not easily adapt to working in a participatory fashion. It's ideal if these professionals embrace the concept of participation, but even when they do not, they can be helpful for very specifically defined technical tasks. They are likely to become more open to community involvement as they see the practicality of the input. It can also be helpful to find some supportive local professional who can serve as a liaison with others in the professional world.



*Local professionals may become more open to community involvement as they see the practicality of the input*

### ***Gathering information with the community***

Often reconstruction plans are made with little sense of the daily realities, problems and priorities of those concerned. This is less of an issue when local people are involved in the planning process. But even then it is important to make these things explicit – to make sure that all points of view are taken into account, that nothing is being taken for granted, and that people are agreed on what the needs are.



*It's important to make sure that all points of view are taken into account*

*Before the workshop, most of the key decisions related to the design of the new housing were already made. But in the course of informal meetings, with women and children especially, various concerns about the new houses emerged. Storage space was a major issue for instance, along with space for children to do homework. It was clear that there was still room for many cost-free modifications or low-cost "options" within this design that would make individual houses more practical for families. Fortunately, SEVAI's director was interested and open-minded, and willing to have these options explored with families.*

*Even more important, little or no attention had been given to the plans for common space within the settlement, and there was considerable potential here for developing community solutions. Based on preliminary discussions before the actual workshop, it was decided that there would be three specific outputs from the process. One was a list of options for housing design, which families could use to "customize" their homes. The second was a design for a community space to be built on a selected site; and the third was a set of recommendations for the site at large, and specifically the concerns that the community needed to start negotiating with the municipality, including drainage, garbage collection, water supply and lighting of the streets.*



*Meetings should happen in places where people feel comfortable and relaxed*

***A flexible approach:*** Flexibility is critical for the overall success of participatory work. It's often assumed that what worked in one location will also work in others, but it's almost always necessary to modify the approach to fit the local situation. There is one golden rule – to make maximum use of the strengths of a particular community or setting. One energetic, respected individual for example, a women's savings group, or a group of children or teenagers already organized around some project, could be excellent entry points for identifying local priorities. Instead of re-creating networks and structures, the participatory process can build on what already exists. The strengths of a community can also include physical characteristics. A special place where children and teenagers come together regularly, or a tree that people think of as the heart of the community, can become a "hub" for the participatory process. Meetings should happen where people feel relaxed and comfortable.

The need for flexibility extends to the methods used. There are many well-tested participatory tools and methods out there, and it's beyond the scope of this booklet to present them in any detail. The methods presented in the following pages are just examples of approaches that can be used. They will be very useful in many cases. But there may be situations in which they are less suitable, and other situations where they are not sufficient.

**It's important to remember that whatever methods are used, they are not ends in themselves. They are only tools to stimulate discussion, to aid in understanding certain facts or relationships, and to make the planning process more accessible to residents and children. These tools are never a substitute for discussion, and their use does not guarantee genuine participation.**



### *The importance of listening to different groups separately:*

In all communities, different groups have different perspectives, interests, concerns and routines. The ways that the home and other local spaces are used by boys and girls of different ages, women, men and elderly people can differ dramatically, and their priorities will be different. It can be very difficult to get a clear picture of the full range of routines and concerns in meetings that include everyone. Girls, for instance, might be reluctant to speak up in a meeting that includes men and boys. In some places younger women might even feel shy speaking their minds in front of their mothers-in-law. It's necessary to determine what the different interest groups are, and to arrange opportunities for all of them to share their activities, concerns and priorities.

### *The importance of involving children in collecting information:*

The importance of children's knowledge and their capabilities as local researchers are usually underestimated. In fact, when children are involved in meaningful projects, they can get organized and produce work that is extremely valuable for the physical planning of the community. Children's ability to be systematic and their attention to detail shines through, especially in tasks that require careful observation such as mapping. Children are often far better acquainted with the local surroundings than their elders. Following many disasters, children have helped to collect crucial data by testing water quality, monitoring dust in the air and identifying piles of rubble that need to be removed,

Getting physically involved in recovery efforts also has important therapeutic value for children who have experienced disasters. Children who have lost friends and family members, or homes and familiar surroundings, and who may have a lot of free time on their hands, will often take great satisfaction helping in their community's recovery efforts, and will be proud of their efforts.

One or two team members, along with SEVAI staff, met separately several times each with women, men, adolescent boys, adolescent girls, and younger children, along with a group specifically for caregivers of young children (including not only mothers but also grandmothers, a few siblings and even a neighbour). These groups were intended to consist of the same 5 to 8 members each day. But in the case of the caregivers and young children, in particular, the groups fluctuated a good deal, ranging from a core of 4 or 5 to as many as 15 or 20 at times. These groups were involved in a number of exercises which encouraged discussion about their daily routines and their use of space. These meetings generated important information on all three objectives — housing design, a plan for community space, and attention to site-wide service provision — but from different perspectives.

A group of children was involved in creating maps of garbage in the community. Many residents had complained about the inadequacy of the local government waste collection service, and the accumulations of trash throughout the community. The children's garbage maps could potentially be used to convince the local authorities about the seriousness of the issue.



*Garbage map of the community made by the children*

### *Understanding the daily routines of families and children:*

The first step in every planning and design process should be to understand the daily routines of those involved. Every practical plan is grounded in these daily realities – a common sense point that is too often overlooked. It is too often assumed that families can adapt their routines to whatever physical environment they are provided with. But housing and settlements developed without giving consideration to local practices often fail miserably. At a minimum, they can complicate daily chores, disrupt social support

networks, make residents unhappy and place new constraints on the ways children are dealt with. In the more extreme cases, settlements might be abandoned or never settled into in the first place. It is important not only for facilitators to understand these daily routines, but for local residents to develop an explicit, shared recognition of these often taken-for-granted realities.

Getting an overview of these daily routines takes time. It means learning about livelihoods, social interaction, safety, social support networks, and community practices. Every group (caregivers, working men, elders, boys and girls etc.) has unique routines, and these routines can change according to the day of the week, seasons, holidays, and such factors when the market comes to the town.

Caregiving practices are a good example of how a routine task can be affected by the arrangement of the physical environment. When mothers are caring for young children, balancing this with daily tasks like cooking, cleaning and fetching water can be complicated. Understanding how women manage all these different tasks is critical for designing supportive physical environments. The proximity of houses to each other, access to neighbours, and safe outdoor play space that is visible from where mothers are preparing food are often the key issues. Mothers are not the only caregivers and the same kind of thought needs to be given to the implications of caregiving for fathers or older children.



*Informal family visits are a good way to start a participatory process. In Cooks Nagar the team broke into pairs to cover different parts of the settlement, and to meet as many community members as possible. This was a chance to explain the project, as well as to get a better understanding of people's daily lives and concerns. Ideally on visits like this, only a few people should drop by each household.*

*These household meetings were a useful way to establish rapport and gain information. But it was also important to take a more structured approach to getting the perspectives of different groups in the community.*

*In Cooks Nagar, a daily activity matrix was used for this purpose. This is an easy activity to learn, and workshop participants were all able to repeat it successfully with their respective groups after seeing it once. Many of them also found ways to enhance the method, for instance, by developing symbols to represent different activities.*



It is important to understand that most of the basic patterns of life will not change just because residents have new housing. These patterns are ruled by strong cultural, traditional and practical realities. Many planners think they can change the lives of people simply by building a new environment. This is not the case. What is important is to find out about these patterns in advance and make sure that the new environment supports them in practical ways.

A number of methods are useful in gaining an understanding of the community and its routines – for instance, visiting and interviewing families; using daily activity matrices with small groups; taking tours of the community; and simply taking time to observe and to discuss what is observed.

### Method: The Daily Activity Matrix

This method is best conducted with a small group. The facilitator draws a line with a sun rising and setting above it, representing a typical day. Then participants are asked to give a detailed account of their day, from the time they wake up until they go to sleep. Each activity is recorded in the diagram as the day progresses. It is essential to go slowly and collect as many details as possible for each activity. Often people tend to skip important information unless they are asked specifically to provide the details. In order for this method to be useful in the planning and design of homes and community spaces, it is essential, for instance, to relate each activity to physical space and to the lives of children. For example, when a mother describes waking up and going to wash early in the morning, the facilitator must ask where she washes, where the water comes from, whether small children are awake yet, and if so, where they are while she is washing. These details should be carefully recorded. It's usually necessary to do a daily activity matrix for different kinds of days such as weekdays, weekends, special holidays, and so on.

Activity matrices can also be useful for understanding the lives of the children at different ages. For very young children, caregivers will be the best source of information. But school-aged children will enjoy doing it themselves. It should be noted that the activities of girls and boys are likely to be very different, and separate working groups should be established for school-age boys, school-age girls, teenage boys and teenage girls. Although the method used is identical to that used with adults, most children and teenagers have a wider geographic range than adults, and in the course of their play are likely to use many outdoor spaces in the community that adults usually do not go to. While doing the daily activity matrix with children, it is important to understand this "spatial" dimension of their lives in full.





*Children should feel free to show what they think is important*

### **Method: Community tours with children**

The facilitator asks children to show her a number of key spaces, for example where they play, what route they take to and from school, where they like to spend time together and what places they avoid. Children should feel free to show whatever they think is important, and should be asked to explain their reasons for these use patterns during the tour. Photographs can be used to record these tours, and later on they can be annotated with the comments of the children. Ideally, separate tours should be conducted with boys and girls of different ages. However, if this is not possible, this method can also work with mixed groups of children.

*Relating the findings to physical space:* The main reason for understanding local routines and making them explicit is to be able to relate them to physical space. Then it becomes possible to identify potential concerns, and to develop plans, designs and recommendations that relate directly to people's actual needs. Even if it is not always obvious, most activities and local concerns have a spatial dimension. In most cases, the lives of children and families can be much improved if the physical environment is planned to be responsive to their needs.

In discussing, observing and analyzing local routines with adults and children, it is always critical to work towards an understanding of how these routines might best be supported, how various daily challenges might be addressed, and even how new, more desirable routines might be made possible through targeted attention in planning and design. Much of "planning" is a process of identifying problems in the environment, so that they can then be responded to. These problems may be very obvious (like a busy road that children have to cross on their way to school.) But they may only become evident as people occupy their new surroundings (like the need for more storage space). When daily routines and activities are discussed and related to physical space, many problems can be anticipated in advance.

## *Hands on planning*

*Developing a core planning group:* It is not feasible for everyone in the community to be equally involved in the planning phase. A core group will generally be the motivating force behind the planning process, and the liaison with the rest of the community. These core planning groups are often the people who help to ensure the sustainability of the project once facilitators leave the site.

Often these core group members emerge from discussion groups early in the process. It's relatively easy to identify individuals, especially children, who are more excited than the others and eager to be involved. But enthusiasm alone is not enough; it's important to encourage the involvement of people who can make the time to be consistently involved. It's also very helpful to identify individuals with specific skills, from drawing, to public speaking to being a good negotiator – although some of these skills can develop quickly in people who are excited about the process. Every effort should be made to ensure that this group is as representative as possible, that members feel responsible to those they represent, and that, as a group, they can deal constructively with any conflicting interests within the community.

*Analysing the information:* The first task of the planning group is to analyze the information that has been collected with a view to the implications for rebuilding. What are people's spatial needs and priorities? How do the needs of different groups relate to one another? How do these needs and priorities relate to the realities of a particular site, or to the planning decisions that have already been made? What objectives do people want to achieve? What factors might get in the way? What resources can be drawn on?



*The core planning group should consist of adults and children who have time, enthusiasm, and ideally some skills to bring to the process*

*The various discussions, exercises and tours in Cooks Nagar generated a good deal of information that was relevant to the planning process. None of this information was unfamiliar, but much of it had never been considered or discussed in the context of local space.*

*For instance, it became clear that most women finished their daily chores in the morning and had time to socialize early in the afternoon before older children came home from school and dinner preparations began. They all agreed that it would be nice to have a pleasant place to relax together where small children could play. This was helpful information when the community space was being designed. The planners made sure that the proposed common seating area adjoined the planned play space for small children, and that it could be available for the use of women during that time slot.*

*The activity matrices also revealed that school-aged children had almost no free time because of the hours they were spending in paid group tutoring sessions. One major reason for this tutoring was that quiet, well lit space for homework was hard to come by. But the academic and social benefits of these tutoring sessions was questionable, and parents agreed that appropriate space and supervision for homework within the community would be a far better alternative. As a result, this became a primary function of the proposed community space.*

*Discussions with men made it clear how important the local teahouse was for them — the place where employers came looking for labourers. Some men spent long hours there, chatting while they waited. In the light of this information, it clearly made little sense to develop an alternate space for men to meet in the community during the day.*

*It was decided that there would be three specific outputs from the Cooks Nagar process: a list of options which families could choose from to "customize" their homes; a conceptual design of a community space to be built on a selected site, and a set of key recommendations on the rest of the open/community spaces — including such issues as drainage, garbage collection, water supply and street lighting which needed to be negotiated with the municipality.*

After visits to households, discussions with residents, group meetings and workshops, mapping exercises, or whatever methods are used to gain an understanding of local realities, there will often be enormous amounts of data that are relevant for the planning efforts. For many inexperienced groups, this information may feel overwhelming.

This information can usually be organized as it relates to the planning and design of either the site, the housing or the community space within the new or rebuilt settlement. But establishing the links between this information and the physical environment is not always easy. The "checklist" accompanying this handbook is a valuable tool for this task. The planning group can go systematically over the checklist, discussing items on the basis of the information collected and the plans and designs proposed (or implemented) by the contractor or NGO responsible for the project.

*Establishing priorities:* No community design or planning process can address every issue and provide all of the solutions. The key here is to prioritize, and to focus on the areas where it is possible to have an impact. It can be a good strategy for the core group to identify a few important issues that are likely to have the biggest impact on the lives of the children, and then to focus on them through planning and design. Once these issues are identified, they should also be embraced by the rest of the community and the local NGO or contractor responsible for construction.

*Developing a design programme:* Once these objectives are clearly stated (whether it be to develop a community centre, to deal with a drainage problem, to modify an existing housing plan, or to improve general safety in the areas where children play) the core planning group can get to work developing a design "programme" — a statement of all the functions and factors that a particular solution needs to address.

A design programme is actually like a "user's manual" for creating a design. It identifies the spaces that will be created, where they will be located, the sizes and physical characteristics, the kinds of materials that will be used, and so on. The information in this programme is not limited to the physical characteristics of the spaces being planned, but covers the operational aspects too. In other words, it addresses the functions that the space serves. What activities will take place in this space? Who are the users? What will happen here during different hours of the day? It is virtually impossible to design a space that serves its users well without having an agreement on the answers to these questions.

*Developing plans and solutions:* This may be the simplest part of the planning process – or the most complex and time consuming. Sometimes, when problems and objectives are clearly stated, solutions become immediately obvious. At other times, there is no perfect answer, and it may be a struggle to find the most workable solution. A number of methods can be used to experiment with different possibilities including the use of templates or models for the design of a particular space. It can also be useful for the planning team to make visits to places that have faced similar problems.

### Method: Developing a design programme

Participants should be encouraged to identify the following:

- What activities will happen in this place?
- Who will the users be?
- When will it be used?
- What will the operational aspects be (such issues as maintenance, charges, staffing etc)
- What are the design directives (components, materials, detailing).

*In Cooks Nagar, when people worked on a design programme for a group seating area in their shared community space, they identified the following points:*

- *Activities: informal socializing and relaxation as well as small meetings, quiet games and homework.*
- *Users: no more than 30 to 40 at a time; caregivers with children, men, students in study groups and elderly people.*
- *Time of use: all the time, but different for different groups (e.g., mothers with children would probably use it during the early afternoon, while men would use it later in the evenings.*
- *Operational goals: minimal maintenance; a water supply nearby.*
- *Design directives: a space of about 20 feet by 30 feet; small and larger clusters of fixed seating; fixed tables in the small clusters there; trees and vines planted for shade; hammocks for babies.*

### Some important principles in developing design and planning solutions:

- The solution needs to be practical and realistic.
- The solution must be affordable. If the NGO in charge of construction is not able to cover the cost, community members must decide what they are able to contribute, or alternative sources of funding must be explored (for instance, there may be funds within local government for particular kinds of projects.) Such expenses as furniture for a day care facility or sports equipment for recreational space, must also be considered.
- Ways must be found to communicate the solution successfully to the rest of the community.
- The long-term maintenance of the solution must be considered in advance. Who will be able to take care of the space and maintain it? What will the costs be for maintenance, and who will cover them?



### Method: Visualizing the future

If the community is moving to a new location, it becomes critical to understand how the residents visualize the future and the settlement that they will be living in, in the years to come.

Various "visioning" exercises, undertaken with different groups, can be helpful for this.

The facilitator asks people close their eyes and envision the completed project. They are asked to imagine walking in the streets, entering homes, observing activities. Then they explain their visions for others to comment on. The facilitator should ask specific questions such as:

- how wide are the streets?
- who was on the street?
- how close are the homes to each other?

Participants can also draw their visions.

### Method: Mapping

A reliable base map of the site is a critical starting point. The scale should be large, and people should have a clear understanding of what the scale represents. It is important to use methods and materials that allow for flexibility and continuous rearrangement. Paper, pens and markers are not a good idea, since when a line is drawn, it is not easy to change it. Instead, cutout templates and local materials can be used as building blocks. Rope or yarn, for instance, can be used to mark roads, paper templates can represent houses, leaves and sticks can stand for plantings, etc.

Another possibility is to draw large maps directly on the soil with sticks. Such maps can be erased and redrawn very quickly. Whatever method is used, it is important to draw or photograph the final outcome so that it can be communicated to others.

Although this may not be possible in many cases, ideally the community should be involved in site planning decisions. At a minimum, the proposed site plans should be explained to them and suggestions invited. While technical expertise is clearly critical to such engineering issues such as drainage and grading, the community's ideas and suggestions are also important and can be incorporated into the final site plan. Where people are moving to a completely new location, this planning cannot be done simply through looking at blueprints. Site visits are essential. At the very least, the core planning group should have the opportunity to visit the site with engineers, so that they are able to explain the situation to the rest of the community.



*Maps or plans drawn directly on the ground can easily be erased and changed*



Once residents understand what is being proposed, they can relate it to their everyday lives and point out any trouble spots and inconsistencies. The trick is to for the community to be able to visualize what is being proposed. The core group may need support in communicating the proposed plans in a format that all the residents can grasp – for instance through a series of mapping exercises.

Undoubtedly, mapping is the single most powerful method for understanding the potential dynamics and relationships of a site, and mapping exercises can be useful even if a proposed site plan already exists. Actual "maps" may not be necessary. What is important is for the participants to be able to think and express their lives in spatial terms.

## *Housing design*

For the sake of efficiency and cost effectiveness, most post-disaster construction takes a "one-size-fits-all" approach, regardless of the size of families, the age of their members or their specific needs.

People are usually very clear about their personal and family needs, and also have strong feelings and ideas about what a proper house should look like. At the same time, few disaster-affected people feel in a position to argue for their real needs or those of their children. Their inclination is to accept whatever they are offered, especially since it is likely to be a significant improvement over very inadequate temporary housing.

Even with a standard design, some flexibility should be possible. Most houses built after disasters are likely to have simple layouts, and this makes the details extremely important. The addition of a well-placed shelf, for instance, can give children a surface to write on, or allow water to be stored out of the reach of small children's grubby hands. Usually a number of modifications and variations are possible without significantly increasing the

*In Cooks Nagar, many of the mapping exercises were done by using chalk and drawing on a concrete floor in half-finished homes. This worked perfectly because unlike with pen drawings, participants were able to erase and correct drawings as the discussions progressed. Although it was not possible to move them, the final versions were photographed so that they were not lost.*

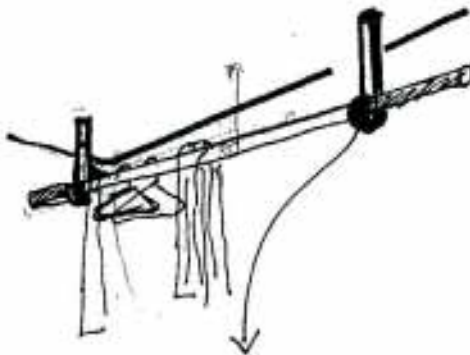
*At the time of the workshop some houses had already been built. This was extremely useful for all those whose houses were not yet started. It made it much easier for people to visualize their future lives in these houses and to understand and evaluate their needs. By going in and out, climbing the stairs, looking out the windows, they started to identify what they liked or did not like. Through group meetings and discussions, they were able to develop a range of low cost or cost-free options that would make the houses work better for them. Many of these options were related to the improvement of children's lives.*



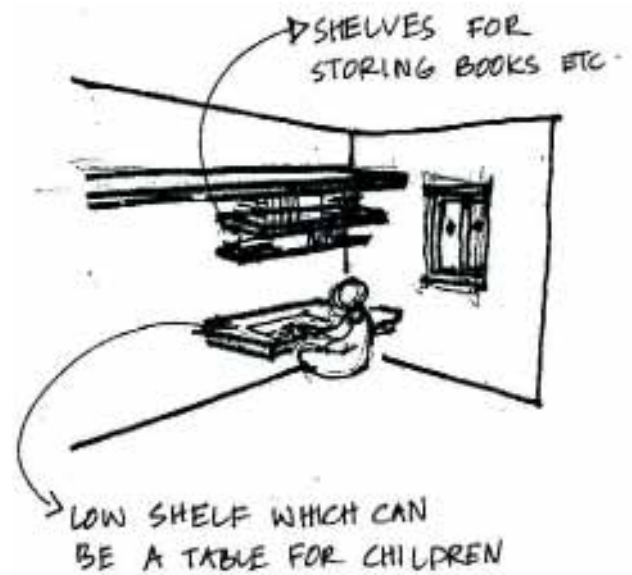
3 SHALLOW STEPS - TO HELP YOUNG CHILDREN TO CLIMB AND ALSO TO PREVENT FALLING



OPTION TO ENCLOSE THE VERANDAH, WHICH GIVES A LARGER HALL.



LONG CEILING HOOKS WHICH CAN SUPPORT A BAMBOO POLE/ROD - CAN BE USED FOR HANGING CLOTHES



SHelves FOR STORING BOOKS ETC.

LOW SHELF WHICH CAN BE A TABLE FOR CHILDREN

overall budget of the project. People can be given options, for instance, and the choice of giving up some features in exchange for others. It is important to make sure that people have enough time to reflect on their needs and to identify possible modifications. They must be assured that their suggestions will be taken as constructive input, not criticism, and that they will not jeopardize their chance for housing by offering these suggestions.

A range of methods can be useful in developing or modifying house plans, from drawing and modeling to touring existing housing. Where large

numbers of houses are being built, it is always a good practice to build a model house first. While this may delay the process, the advantages are countless. A model house allows the residents to see exactly what they are getting and allows them to make changes and suggestions before it is too late.

### **Method: Designing houses**

Even when there is not a prototype house for people to see as a starting point, drawing is still possible. Some people may find it easy to sketch basic floor plans to scale. For others, it may be easier to find a place where a full sized floor plan can be drawn onto the ground, so they can actually experience the space, and see how things relate to one another.

Once a basic layout is determined, it can be helpful to build a simple three dimensional model of the house from cardboard. The roof of the model should be open (or removable) so the participants can see the layout of the rooms and their relative sizes. Models are a powerful way for the residents to visualize the housing that are going to be built.

## ***Planning community space***

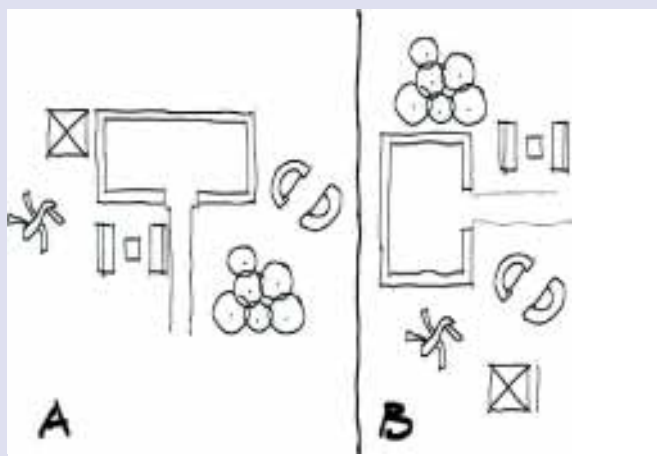
Most post disaster reconstruction focuses on housing as the priority. But, as discussed in other sections, community space is vital for community life and for children, and can offset the limitations in housing.

The actual needs in this regard can vary dramatically from community to community. It is not as simple as providing a playground and a ball field. When local residents are directly involved in defining their shared needs, it becomes obvious how unique the solutions can be.

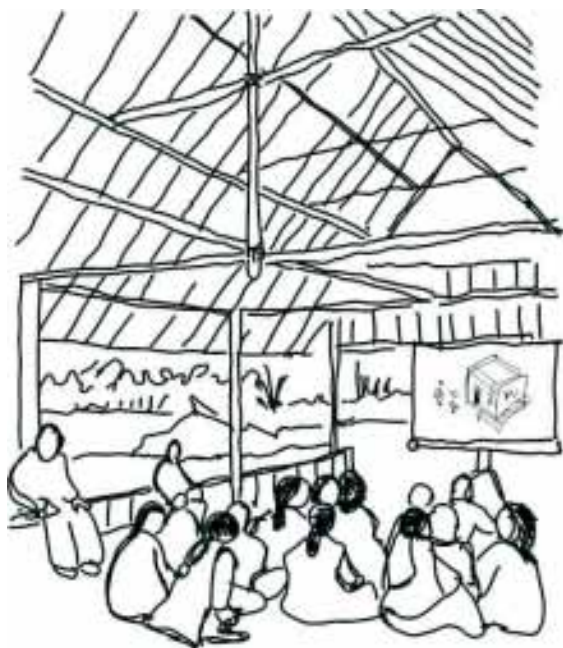
Once the types of the spaces, their functions, users and use times have been identified by different groups, the next step is to

In Cooks Nagar, people felt a clear need for shared space to serve a range of needs. They wanted a building for several reasons — for children to do homework, for groups to meet, and for holding weddings and other functions, so that they would not need to rent space. They also wanted space outdoors for small children's play, for socializing, and for activities such as volleyball. Teenage girls were clear that they wanted quiet places to sit throughout the community where they could spend time with friends.

Once the needs were clear, facilitators cut out templates that represented the uses and components that people had identified (a building of a certain size, shade trees, benches, open space etc), and the planning group set to work on a large plastic sheet working out how to make best use of the available space.



*The planning group presented its design for the community building and shared space at a meeting that was open to all. Slides were projected, and a few of the women and children, selected by their peers, explained the plan and answered questions. At the same meeting, the head of SEVAI presented back to people all the housing options they had identified, and explained the process by which each household would have a chance to work with staff to come up with their individual plan.*



*There is a need for a strong group within the community and for processes that ensure on going communication*

design the actual spaces. Standard participatory design methods, using base plans and templates, and allowing people to experiment with different solutions, are generally the best approach to use.

**Reporting back to the community:** At every stage of the planning process, the rest of the community should be kept as informed as possible. Depending on the project in question, this may involve community presentations, informational meetings, informal discussion with peers, updates to a bulletin board, or a model or plan that community members can comment on.

## ***Implementation and follow up***

**Accountability:** Even the most productive participatory planning process will come to nothing if there is no follow up. It is critical that issues of implementation be clarified well in advance.

There must be some commitment on the part of contractors, funding NGOs and local government to support the solutions and decisions arrived at by community members – unless it is clear that these are solutions that community members or groups are undertaking on their own. It is a mistake to undertake any participatory process if there is no real dedication to following through. This does not mean that NGOs need to implement unrealistic demands. It does mean that they need to respect the time and trust that people have given to a process, and to honour any commitments that have been made. There are too many examples of participatory projects, especially with children, where, in the end, there are complications, a staff person leaves, funding doesn't materialize, and

nothing ever happens. Often participatory planning projects are praised for educating children in the virtues of active citizenship – but when they don't work out, they can result instead in cynicism and distrust.

Even when the commitment is there, there is a need for structured follow-up. Under time and funding constraints, many good ideas can fall by the wayside. This implies the need for a strong group within the community, and for processes that ensure on-going communication. This kind of follow-up is important, not only for the projects that have grown out of the participatory process, but for the reconstruction as a whole. Things can move slowly for many reasons, and too often communities are in the dark for month after month, relying on rumours and guesswork about what is going on.

*Structures for following up:* A committee of some sort should be formed to take responsibility for following up on the implementation of the projects that have been identified (or possibly separate committees for separate projects.) People from the core planning group may be ideal committee members, since they understand the projects in question and have experience working together. But whoever is selected from the community should have the time, the commitment and the skills to follow through. And of course, the committee should be representative of all groups in the community, including boys and girls – or should be accepted by these groups to represent their interests. It is ideal if this committee can also include a representative from the contractor or implementing NGO, or, where relevant, someone from local government. For instance, if the project involves such issues as waste collection or street lights, an ability to coordinate easily with the agency involved is important.

This committee should meet with the implementing partners on a regular basis to be updated on progress. And it should then be a routine matter for any new information to be communicated to the rest of the community, whether through meetings, bulletin boards or other means.

*In Cooks Nagar, several structures and routines were put in place after the planning workshop.*

- *A procurement committee was established with two elected representatives from the community (a man and a woman), two staff members from SEVAI, and two from Save the Children. This group met regularly and was responsible for spending decisions on materials. Community representatives reported back to the community.*
- *Children formed two construction committees, divided by age. All were welcome to join, but not all members were equally active. These committees met weekly to be updated on the construction and to be trained on relevant monitoring procedures.*
- *A SEVAI team made appointments with every household, and held meetings where parents and children together decided on the features that would be included in their particular house plan, which they then drew up.*
- *A "construction office" was set up in a house that had been completed earlier. Information regarding the progress on the houses was maintained and displayed here, as well as the plans the children had drawn up for the community centre, and a list of all the activities that needed to be completed.*



*Children and adults in Cooks Nagar played an active role in the building process. Children, for instance, took all responsibility for regularly wetting down concrete slabs and foundation walls until the curing process was complete. They really enjoyed this form of "water play", but also took it very seriously. All families kept a close eye on the materials stacked for their houses, ensuring they did not spill over into the road.*

*When land was finally acquired for the community space, people quickly cleared it of garbage and set about fencing it in. The development of this space is just beginning, and people of all ages are determined to contribute what they can.*

*Children in Cooks Nagar have been enthusiastic about monitoring construction. They made sure, first of all, that the builders did not get mixed up on the individual house options – a boon for busy construction teams that were working on several houses at once. They checked deliveries, to make sure that everything listed had actually arrived. They were also trained to monitor the quality of materials. For instance, they tested bricks for durability by soaking them in water for several hours. If the bricks were of low quality, made with saline materials, they would start to dissolve. One shipment was sent back after children found it did not meet the standard.*

*The relationship between the children and the labourers was excellent, and included a lot of joking and fun. The construction team appreciated the help, and children learned a lot from them. One boy was observed carrying bricks to a mason, who stopped and explained exactly how wet the bricks ought to be before they were handed over.*

*Contributing to the project:* There are many ways adults and children can contribute to projects that are underway, whether by providing extra labour, monitoring progress, or even providing workers with refreshments. Especially when people have waited months and months for construction to be underway, it can be satisfying to play some role in helping the process move forward. Even young children can help with such tasks as ensuring that new masonry is kept damp, or watering newly planted trees.

*Monitoring implementation:* It is in the interests of the community to keep a close eye on any construction project – monitoring the quality of materials being used, and ensuring that proper procedures are followed. Given the amount of construction that takes place after a disaster, it is likely that not all labourers will be skilled and experienced, and not all materials will be up to standard. Good contractors/NGOs will themselves want to keep a close eye on quality, but careful scrutiny on the part of the future residents can help ensure that no corners are cut.

A number of child focused NGOs have seen monitoring as a good area for the involvement of children and young people. This can certainly be the case under the right circumstances – if children are inter-

ested in taking part, and are given adequate back up by adults. It is not always comfortable for children to be "policing" adults. Ideally, a monitoring team will include both interested children and adults, perhaps with complementary skills. It can also make sense for individual household members, children or adults, to monitor the construction of their own houses, if distance permits.

Adequate monitoring will require some knowledge. Those interested in taking part need the opportunity to learn about the procedures in question – whether it is the depth to which foundations should be dug or the proper mix for good concrete. But not everyone involved in monitoring needs to know



about all aspects of construction. And there are a number of activities, such as counting the number of bricks that have been delivered, that will not require much knowledge. Ideally, a few community members, properly informed about all procedures, can ensure that a coordinated job is done, showing children and others how to undertake a particular task.

*After "completion":* Few plans or designs are perfect. Even when a project is theoretically complete, there is generally scope for improvement. It's only when people start to use a house, a seating place, a pathway, that some of the best ideas emerge for improving and modifying it. These maybe minor changes, but can make a big difference to how well something works. As discussed earlier, it's a good idea if some part of the budget for any project can be set aside for these kinds of improvements.

*On-going maintenance and repair:* Especially for shared spaces and facilities, where no one may step up to take responsibility, maintenance and repair are also ongoing concerns. This is another situation that may call for an active committee. Even the best planned day care centre or community park will need to be maintained over time. If community members don't want to take this responsibility, they may need to set up a fund to hire out this work. Maintaining a clean, attractive, well functioning settlement that works well for children and all age groups will also call for on-going liaison with local government agencies.

The construction process Cooks Nagar was not yet complete when this book went to press. Most houses were under construction, and the land for the community centre had finally been formally acquired after many rounds of negotiation. But it was clear that the process had changed the

*A number of children in Cooks Nagar took a serious interest in understanding the details of house construction: "Every column has to go down 5 feet", one 12 year old girl explained. "There are 11 of them made from a very strong mixture of 1 part cement to 5 parts sand. That's different from the mix for plaster. You can tell if bricks are good by snapping them with your fingers and seeing what sound they make. We also put them in water and see if they start to dissolve. If the water turns reddish, that's not good. We also help cure the concrete - we pour water seven days - the engineer told us that makes the concrete much stronger." .*



*When people start to use a place, some of the best ideas emerge for improving it*

community, not only physically, but in terms of the way people related to one another and tackled their problems. At the time this handbook went to press, community members were taking the lead in planning for the development of the plot of land they had just acquired for building their community centre. Two days after signing the agreement, they had already cleared and fenced the land.

Mahalaxmi, a local grandmother, an active member of the planning group and a representative to the procurement committee, explained it this way: "The tsunami was terrible and we've experienced a lot of hardships in this community. But we're picking up the pieces and are able to manage. Through this process, so many good things have happened and we've learned so much. It's been really good that we were so involved. We understand all the difficulties and appreciate what's happening. Our children have seen NGOs come and go before, but they have never become friends in this way. In the past we didn't really relate to people outside our own family groups. This has really changed. The tsunami forced us to see each others' problems better, and through this planning process we really started talking to each other and getting to know everyone. There's a lot of discussion now about everything. Now we frequently convene meetings on our own. When we have the community building, it will happen even more because there will be a real place for gathering. There are still people in this community who are worse off – widows, people who are more vulnerable in different ways. We can't help them financially, but we are all much more concerned about each other now and can at least offer our friendship and support. And we're much more aware about what our children need and what they can do. Planning together with our children has brought us all closer together. I'm ready to go and show other communities how to work together this way!"

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