Children and the Tsunami, A Year On

A Draft UNICEF Summary of What Worked
November 2005

Yin Yin Nwe

1. Introduction

In the months following the Indian Ocean tsunami of 26 December 2004, the public spotlight shone on the plight of children in the affected countries as never before. The spotlight helped – by making the public aware of the risks that children faced, and by triggering a tremendous outpouring of generosity from the public and governments around the world, who gave an unprecedented amount of resources for children. Because of this generosity, the governments, UNICEF and other organizations were able to accelerate measures to save children’s lives, return them to normalcy quicker, and protect them better from abuse and trafficking.

Now, nearly a year on, much has been done. Over a million children have been vaccinated against measles, families and communities are being provided with clean water and children are now back in school. Separated children have been registered, and efforts are ongoing to place them with families in their communities.

More, much more, still remains to be done if children are to fully recover. Many families have yet to regain their livelihoods or move into permanent houses. Rebuilding of basic services for children and infrastructure has only just begun and will take some time. But it is important not to rush in rebuilding, especially if a “Building Back Better” approach is taken, as promoted by President Clinton, the United Nations Special Envoy for Tsunami Recovery.

Many organizations – UNICEF included – have already provided information on the numbers of children who have benefited from various kinds of support. Studies and surveys have been conducted or are being planned to find out the impact of the post-tsunami changes on the lives of people. But numbers and statistics need to be put in context. UNICEF therefore proposes to examine some concrete examples of how children’s lives have changed, nearly a year on from the tsunami.

2. The Most Vulnerable Children, A Year On

Just after the tsunami, UNICEF warned that protection mechanisms must be put in place for children who had either been separated from their parents or orphaned by the tsunami. Teams made up of the government, UNICEF and NGO partners traced and reunified families, assessed the situation and took the best possible care option for children whose parents were missing. It was emphasized that adoption should not be considered until every opportunity to locate family
members had been exhausted. Indeed, the Indonesian Government issued a six-month ban on adoption of children from Aceh and on the movement of children outside Aceh province without their families.

What has happened to these children a year on?

Key findings, a year on

• Governments, assisted by UNICEF and other partners, are putting in place systems and policies to protect children affected by the tsunami.
• There are no substantiated cases of trafficking of tsunami-affected children, but all partners must continue to be vigilant, and continue with current prevention efforts.
• Most of the children who lost parents have now been placed with community or family members. Visits – of varying frequency across the region – suggest that they are being well-looked after. Such visits will need to continue and formal systems for monitoring children’s well-being will need to be put in place soon.
• Governments are developing mechanisms to support the host families looking after children who have lost their parents to the tsunami.
• Efforts need to continue in seeking better and more appropriate solutions for children who have been put in institutions and orphanages.
• UNICEF’s monitoring of psychosocial activities shows that these activities are playing a crucial role in helping children recover from their trauma. Progress is revealed in children’s drawings and their behaviour.

2.1. Care and fostering

In Sri Lanka, government officers called Probation and Child Care Officers are responsible for monitoring the conditions of the 979 children who lost their parents in the tsunami. All but 12 of these children are now living with extended family members. The 12 are children for whom the search for extended family has been unsuccessful.

In the months following the tsunami, Sri Lanka put in place a legal process involving assessments and magistrate court orders, which has allowed foster families caring for these children to receive a support allowance of 500 Rupees (about 5 dollars) a month for each child. About 570 children and their host families now benefit from this support. The introduction of a new law has caused some delays for the remaining children and their host families. However, advocacy by UNICEF and its partners has helped in finding a solution, which will allow the swift processing of the remaining foster families over the next several months. UNICEF is supporting the training of social workers who follow-up on these children with visits. The Government is planning a verification exercise in December, to check on all registered children, with special attention to children not previously visited.

In Indonesia, tracing and reunification efforts are still going on, in tandem with placement of children with families. Family tracing can take months. For example, it was only in July, after a long search, that a fifteen-year-old boy called Khairuddin was reunited with his mother Yuslaini – the only other surviving member of his family at the UNICEF Office in Meulaboh. Other members of
Most of the children without parents in Aceh and Nias (about 2,242) have been placed with community or family members. To monitor the well-being of these children, social workers or NGOs pay them visits, about once or twice a month. How long the monitoring will continue will depend on the individual case, the vulnerability of that family and the situation of the child. The social workers produce monthly case reports, which go into a database managed by the Ministry of Social Affairs and set up with support from UNICEF and its partners.

A UNICEF assessment has found that the separated and unaccompanied children in Aceh who are staying with extended families are generally well looked after by their relatives. The main difficulty is that these families are struggling with limited financial resources. Clearly, some kind of support will be necessary to keep the children with these families. The families may also need some training on parenting skills and counselling to help them deal with the new situation.

The Government of Indonesia has issued a policy on separated, unaccompanied and single-parent children, a first step towards a more formal arrangement for family or community-based care options for children who have lost both parents. However, there is still no legal recognition of such arrangements. About 187 children without parents are still living in institutions or orphanages in Aceh and Nias. UNICEF is supporting the Government in developing more appropriate long-term arrangements and a long-term policy for community-based foster care, including legal recognition of the relationship, children’s right to identity and their right to inherit.

In Tamil Nadu State in India, around 480 children lost both parents to the tsunami. Immediately after the tsunami, the State Government announced a special scheme to safeguard their future: a fixed amount (approximately US$ 12,000) would be deposited in a bank account jointly held by the child in question and the District Collector (the head of the district). Most of the children who lost both parents have been placed with community or extended family, while more than 200 children are now in Government-run orphanages. Before letting the children move to foster families, the Government wants to first establish a proper monitoring system to ensure that foster families act in the child’s best interest. Unless this is done, the financial benefits announced for tsunami orphans are open to possible abuse. UNICEF and other agencies such as Save the Children UK are assisting the Government in setting up such a monitoring system.

In Thailand, there are officially 92 children whose parents or guardians died in the tsunami. The Government and Red Cross representatives follow-up on these children, and NGOs are also involved with family visits. All children are now in extended family care. The Government is providing cash grants and income-generation support to the families looking after the children. UNICEF is chairing an inter-agency working group for developing systems to formalize such care arrangements, monitor existing care and advocate for non-institutionalization of children, as some districts are now beginning to build orphanages.

In the Maldives, no child lost both parents, since most of the casualties were either very young children or older members of the families.

2.2. Child trafficking and sexual exploitation of children
UNICEF and its partners – which in some countries include police – diligently check and follow up on all reports of child trafficking, and no substantiated case of child trafficking has emerged. Clearly, governments and international humanitarian agencies would find out about child trafficking attempts only where these attempts had failed. Nonetheless, it can be said with some certainty that there is no large-scale organized trafficking of children who were separated or orphaned by the tsunami. While commercial sex workers are reported to be operating in Aceh, there is no evidence that these currently include children.

In Thailand, there are no reports of sexual exploitation or trafficking as a result of the tsunami, but trafficking to and through the tsunami provinces, particularly Ranong, Phang Nga and Phukhet, was known to occur prior to the tsunami and seems to be continuing. There is a large migrant population in these areas mainly working in the fishing industry, rubber plantations, agriculture and service sectors. Migrant children are particularly vulnerable to trafficking and exploitation due to their precarious status. Very little is known about the impact of the tsunami on migrant children. UNICEF and other partners are making efforts to learn more about their situation.

Prevention goes a long way: one approach that has been shown to work elsewhere is to make communities and families aware of the dangers of trafficking, and the ways to prevent their children from falling into such traps. To this end, UNICEF in Indonesia has supported the training of 120 police women (most of them Acehnese) who are now deployed at community level, to form a preventive network for illicit movement of children. In India, the Tamil Nadu Government has initiated programmes for educating community groups on child protection issues. Existing village “Watch Dog Committees” are trained on preventing child trafficking and child abuse.

2.3. Has psychosocial support helped?

To help children recover from the effects of the tsunami and from losing their family and friends, UNICEF and its NGO partners support play therapy and recreational activities, as well as direct counselling. There is anecdotal evidence that such activities are helping children to recover quicker.

One example of this is the camp at Habaraduwa Junction in Galle, Sri Lanka, where children ages 6 to 12 years look forward each week to the visits of UNICEF-trained community support workers. These workers supervise play activities, sports and games, and keep a special eye out for the children who may not be coping or recovering as quickly as the others, working closely with the local health authorities. Among these workers are 80 medical students, trained to conduct different recreation-based programmes for children in the schools, camps and communities of Sri Lanka’s south.

Play has proved singularly effective in helping these children recover from the shock and upheaval and regain a sense of normality. One of the trained community workers, a young medical student named Jaiawickrame, says that he and his fellow workers have recently begun to notice dramatic changes in the children’s drawings: “At first the children would draw pictures of the tsunami but now we are finally seeing happy pictures which we never saw when we started out - like pictures of birds, trees, waterfalls, rivers and play. The ocean itself seems to have returned to its usual calmness – perhaps a sign that children are getting back on track. Drawing is a good way to understand a child’s psychological status.”

For the few children in these camps who are still drawing frightening tsunami pictures, community
support workers like Jaiawickrame are able to give them special attention, talk about their fears and if necessary, refer them or arrange for follow-up specialist care. The workers also go outside of the camps and into communities to make sure that the more isolated children do not miss out.

Sri Lankan parents have also expressed great satisfaction with this approach, as they feel their children have become less frightened and are now confident enough to join in play activities voluntarily. One mother remarked to UNICEF that she had definitely noticed a change in her seven-year-old daughter. “She’s not as afraid anymore. The fear is disappearing. And it’s good for the kids because it’s like going to school in the evening.”

While the programme is helping Sri Lankan children directly, it is also benefiting parents. As the community support workers become known and trusted, they are able to help people by providing information about their entitlements, assisting them in filling out forms for death certificates or to get a new ID card. They can counsel parents on their concerns and anxieties relating to their loss of livelihoods and housing, and even help them through the grieving process by encouraging the practice of religious and traditional rituals.

In Indonesia, over 18,000 children benefit through the daily psychosocial activities conducted in 21 UNICEF-supported children’s centres in Aceh and Nias. UNICEF has assessed the impact of these activities using rapid evaluation methodologies, questioning parents, children and centre staff on the progress of children. The results indicate progress among children in recovering from trauma and in developing resilience.

Staff at the UNICEF-supported children’s centre in Lambaro Skep village report the case of a twelve-year-old boy who lost both parents and two siblings and was completely withdrawn. The child refused to talk, did not participate in any activities and dropped out of school. However, the centre staff persisted in drawing the child into activities and conversation, with the help of other children. The child gradually started to talk and participate in games. The staff later found out that he had been blaming himself for the death of his family and had felt guilty.

Experts say that the drawings of children from the children’s centres in Indonesia show a marked difference from the earlier work by those same children in January. The January drawings mostly showed a state of mind that was confused and traumatized. By June, drawings from the same children indicated a calmer and more relaxed state. The same experts also note that while the play sessions look simple, they play a major role in enabling children to function better psychologically.

UNICEF also supports a counselling programme for children and their families in Aceh and Nias. So far, a network of trained social workers have provided individual counselling and follow-up sessions for about 920 children. School counsellors and teachers are being trained to identify children with problems, provide basic care and support, and if need be, refer children elsewhere for individual counselling.

In India, many of the children who were traumatized by the tsunami were helped to recover through play therapy and recreational supplies provided by UNICEF. Experience from the UNICEF-supported psychosocial care project with the NGO Nehru Yuva Kendra shows that through play therapy that inspires and motivates, many children are getting over their terrifying experience with the tsunami and are returning to normalcy. The Government of India has a programme for more intensive counselling, as needed.
In the Maldives, workshops organized by the Government with UNICEF assistance created an opportunity for children, parents, teachers, and health workers to openly discuss their feelings and experiences of the tsunami. A 14-year old girl recounted how her two-year old brother, himself almost taken by the tsunami, had watched his grandmother being swept away. The toddler was now experiencing great trauma: shaking, crying, unable to sleep, and terrified to be left alone. The girl, suffering herself from fear of another tsunami, had taken on the responsibility for her entire family as her mother had become severely traumatized. The workshop helped by allowing the girl to open up and consult with others about her family to get more help. The same workshops also educated parents on how to reduce the vulnerability of children to sexual abuse and other dangers in the new, more crowded living conditions.

3. Children’s Health, A Year On

**Key findings, a year on**

- Routine immunization coverage must be kept high. The re-emergence of polio cases in Indonesia – including three in Aceh – highlights the urgent need for having in place systems and preventive measures for child health. On the positive side, early case detection allowed the health authorities to take quick action for containing the disease. UNICEF is now supporting polio immunization in Aceh and across the rest of Indonesia.
- Governments, assisted by UNICEF and other partners, are putting in place better disease surveillance and immunization systems.
- Other preventive measures for child health – such as anti-malaria bed nets – are being put in place and are already working.
- Improving nutrition will take time, as child malnutrition is a persistent problem that pre-dates the tsunami. Nonetheless, the tremendous resources of the tsunami recovery programmes provide an opportunity to tackle this long-standing problem.

3.1. Immunization

Before the tsunami, Sri Lanka already had already achieved 99% vaccination coverage of its children under a year. Other countries conducted measles vaccination campaigns with vitamin A distribution in the weeks following the tsunami. These campaigns, conducted by the government, UNICEF and other partners, reached 1.2 million children. In areas such as Aceh province, where the immunization coverage before the tsunami had been very low, individual cases of measles did occur in the early months, but were quickly contained by ring vaccination. At the same time, many agencies and organizations, including UNICEF, provided health and nutrition care, clean water and sanitation services. All these activities helped to reduce the risk of disease and major epidemics. In Sri Lanka, two rounds of surveys carried out by UNICEF and the World Food Programme showed that the incidence of diarrhoeal disease and acute respiratory infection dropped significantly from January to May. In the tsunami-affected areas of Indonesia, the number of measles cases in children was halved in four months. In the months following the tsunami, no child died of preventable disease.
What is now the state of health and nutrition of children who survived the tsunami? Are there any lessons to be learned from the experience?

Governments in the region, helped by UNICEF, WHO and many other organizations, are now in the process of setting up better disease surveillance and immunization systems. UNICEF has provided cold chain equipment for storing and transporting vaccines safely, and is training health staff for regular immunization programmes.

These actions have been especially important in Aceh province, where children were not adequately covered by routine immunization services, because of a combination of weak systems and the long years of conflict.

In recent months, there has been a setback. In April 2005, Indonesia’s national surveillance system identified wild polio virus in a 20-month-old child who had never been immunized before, from Sukabumi District close to Jakarta. Indonesia was caught unprepared, as it had been free of polio since 1995. The virus was subsequently confirmed to have been imported from West Africa via the Middle East. Since this first case, there have been over 200 polio cases across Indonesia. In September, the first polio cases were identified in Aceh – in three young boys from different districts.5

The response has been intensive polio immunization campaigns by the Government of Indonesia, assisted by WHO, UNICEF and other partners. In Aceh alone, nearly half a million children were vaccinated. In November, a third round of polio immunization took place across Indonesia. These actions will hopefully prevent more children from getting the crippling disease and the polio virus from spreading into neighboring countries. But for the three boys from Aceh and hundreds of others, it is too late.

This has served as a wake-up call – that immunization coverage must be kept high, and that disease knows no boundaries. Unfortunately, increasing routine coverage and strengthening routine programmes takes time, and the sudden re-introduction of polio from another country did not allow Indonesia, or Aceh, to have that time. UNICEF is now supporting both the immediate response to polio, through intensive campaigns, as well as the long-term solution – through strengthening of routine systems for immunization in Aceh.

3.2. Malaria

Malaria is another persistent problem that affects children in many of the tsunami countries. But it is a problem that can be prevented and controlled.

UNICEF has been distributing large quantities of insecticide-treated bed nets to prevent the disease. Surveys – although limited for now – have shown that this strategy is working. In Indonesia, a malaria survey conducted in April 2005 in three villages in Sabang6 showed 5.5% of the population to have malaria parasites.7 After the distribution of insecticide-treated bed nets in June, another survey in July revealed that the rate in the three villages had fallen to 3%, just one month after the distribution.
3.3. Nutrition

In the early months following the tsunami, UNICEF and its partners carried out assessments and surveys on the nutritional status of tsunami-affected children. In both Sri Lanka and Indonesia, where surveys were done with a view to setting baselines, high levels of malnutrition were found among these children. This was hardly surprising since child malnutrition had always been a problem in most of the tsunami-affected countries, even from before the tsunami. National figures show that in the majority of these countries, about one-quarter to nearly half of all children under five years suffer from underweight.

Improving nutrition will take time, because good nutrition depends on so many factors. UNICEF is supporting community-based growth monitoring systems and nutrition education programmes in India, Indonesia, the Maldives and Sri Lanka.

Where quick response to severe malnutrition is needed, more intense therapeutic measures are taken. For example, in Aceh, staff at the Silemum health centre covering some 48 villages recently recorded rapid weight gains in malnourished children due to therapeutic treatment using PlumpyNut, which is a food supplement with essential vitamins, minerals and nutrients.

4. Children’s Living Environment, A Year On

<table>
<thead>
<tr>
<th>Key findings, a year on</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Poor coordination between shelter reconstruction and water supply and sanitation efforts led to poor living conditions for children in many temporary housing units. As a result, there have been difficulties in retrofitting water and sanitation facilities to buildings not designed with these in mind. Poor coordination has also led to contamination of water sources and problems with the disposal of faecal matter. Agencies are now working to improve the situation, but the importance of coordination is a key lesson learned – not just within the sector, but with other sectors.</td>
</tr>
<tr>
<td>• In other cases, the new water and sanitation systems that are being established with UNICEF assistance will be safer for children and less susceptible to contamination than the pre-tsunami period.</td>
</tr>
</tbody>
</table>

The tsunami did enormous damage to water sources. Some wells collapsed and others filled up with debris, sand and sea water. In many areas, water systems and distribution networks were destroyed or contaminated. Latrines were either filled up by sand and sea water, or washed away. In these seriously-affected countries, UNICEF and many other organizations provided safe water and sanitation services to the survivors and the host communities.

Now, a year later, many children and families in these countries still have clean water, but many are still in tents, as rebuilding of permanent housing is taking longer than expected. In Indonesia and Sri Lanka, many temporary houses and camps were constructed rapidly, often with limited consideration for water and sanitation facilities, and the disposal of solid waste and faecal matter has become a problem around these camps and shelters. The onset of the rainy season (October on the
east coast of Sri Lanka, November to December in Aceh) will make the sanitation problem more acute. Contamination from unsafe sanitation also means that water quality may suffer.

Agencies are coming together to tackle these problems, providing support to the government to monitor water quality and to improve water and sanitation. In addition, coordination has improved between the many partners who construct shelters, and those such as UNICEF, who are providing water and sanitation.

Good hygiene practices are essential for improved child health. UNICEF has thus promoted safe and healthy hygiene practices in the tsunami-affected countries. In India, for example, innovative health and hygiene campaigns use folk media – such as puppet shows, street theatre, songs and drama – that attract large crowds, old and young alike.

In addition to providing safe water and sanitation in many locations, in Sri Lanka, UNICEF is taking action to minimize the impact of annual monsoon flooding. Flooding in Ampara, for example, happens every year and there are coping mechanisms in place, where the population moves into schools, mosques and other public buildings for a few days until the floods subside. The concern in 2005 is that the impact of the flooding could be worse, because transitional shelters have been built in low-lying areas vulnerable to flooding. In addition, roads that have been constructed with good intentions now block natural drainage in some areas. UNICEF is working with other agencies and government authorities to ensure that preparedness plans are in place for the areas that will probably be affected by floods, that all partners are addressing the sanitation issues likely to arise in the coming months, and that drainage issues are being addressed.

In Aceh and Nias in Indonesia, around 400,000 people are still housed in temporary shelters, some in very poor condition. Organizations that set up rapid emergency housing units – wanting to move people quickly from tents to better structures – often failed to incorporate water and sanitation concerns in the basic design. “Retro-fitting” underground tanks, pipes and toilets becomes extremely difficult, especially when the adjacent unit had been built too close. To make the environment safer for children, UNICEF is now working with the government and other partners to improve water and sanitation conditions in the temporary accommodations, and encouraging organizations building new accommodation to adhere to the standards required for water and sanitation. UNICEF itself is also rebuilding water and sanitation services in many other locations in Aceh and Nias.

The issues for Maldivian children are somewhat different, because of the islands’ geography and soil structure. Traditionally, families get their fresh water supply from two main sources: groundwater (used for washing, bathing, cooking, cleaning and occasionally for drinking), and rainwater, which has been the preferred source of drinking water for these island communities ever since the introduction of communal rainwater harvesting tanks centuries ago. The ground water source is located between one and two meters below ground level. Because of its closeness to the surface and because the sandy island soils are extremely permeable, bacteriological contamination seeping in from the soak pits of toilets had long been a problem, even before the tsunami.

The tsunami exacerbated this problem by doing two things. First, it salinized the fresh water in the aquifer to an intense degree on some islands, making the groundwater unfit even for washing and cleaning. Second, it damaged the septic tanks and sanitation infrastructure, thereby increasing the degree of bacteriological contamination of the ground water. As a result, diarrhoeal disease increased by 133% among young children in the first month after the tsunami struck. In response, UNICEF
and other partners provided reverse osmosis units to desalinate sea water, and rainwater harvesting tanks to communities, schools, medical centres and all camps for displaced people.

What is the situation for Maldivian children now and for the long term?

The number of diarrhoea cases among children has gradually dropped.

Each year, there are over 2,000 millimetres or around 80 inches of rain in the Maldives. A visit to the displaced settlements in Kholifushi Island, Meemu Atoll in October, for example, showed that the rainwater tanks were full, with enough for that entire community.

If there are enough tanks to store rainwater – tanks that are now being provided by the IFRC (International Federation of Red Crescent and Red Cross Societies) and UNICEF – this stored water will see families through the dry season from mid-January to April, at least for drinking water. For washing and cleaning, they can then use well-water.

The reverse osmosis units will provide a backup to the stored rainwater on most of the islands. On larger and more developed islands, such as Thinadhoo and Hithadhoo, reverse osmosis technology can be a sustainable solution – as seen by the example of Malé, the capital city, and UNICEF and other partners are exploring this option.

In collaboration with Maldives Government, UNICEF is also working on sanitation systems with low-cost and sustainable methods of waste water treatment. The waste emitted from these systems will not contaminate the ground water and will be harmless to the Maldives’ valuable and sensitive environment. Partners have agreed not to build any new sanitation systems with soak-pit tanks that would lead to contamination. The water and sanitation systems that are now being put in place will therefore be safer for Maldivian children – in other words, less susceptible to contamination than the pre-tsunami period.

5. Children’s Schooling, A Year On

**Key findings, a year on**

- Many children now have classes in new or renovated buildings, instead of in tents or makeshift shelters. Although many of these new buildings are called “temporary” or “semi-permanent” schools, the majority are solid structures, built to last at least a few years, if not more.
- All children have enough books and school supplies.
- The construction of new permanent schools has begun, although not at the pace that many would like to see. In many locations, schools are being built better.
- The resources for tsunami recovery offer an opportunity to help the poorest and the most marginalized children, those who had never been to school before. Efforts to get them into school need to be expanded.

Within the first few months of the tsunami, children were back in school. Governments, UNICEF and other partners cleaned, constructed or made available existing buildings, temporary schools and tents, and provided learning materials, books, uniforms, school bags and school furniture to hundreds of thousands of children. Some local governments, such as the Tamil Nadu State
Government in India, provided midday meals in schools, supported by UNICEF, who provided plates, tumblers and water containers for the schoolchildren. In the Maldives, Myanmar, Sri Lanka and Thailand, UNICEF carried out repairs and rehabilitation of 370 schools, where damage had been relatively light and where the buildings were still safe for children.

In many other cases, schools had been totally destroyed by the tsunami. In Indonesia, UNICEF had to help demolish school buildings that were no longer safe because of the continuing earthquakes.\(^1\)

Many new schools are therefore needed in Indonesia, Sri Lanka and the Maldives. UNICEF has committed to building these new schools according to better and more child-friendly standards – meaning safer and stronger buildings (and in the case of Indonesia, earthquake-resistant), better classrooms and playgrounds, and separate toilets for girls and for boys. At the same time, UNICEF is also working to ensure that resources for rebuilding are well-used, and used transparently with full accountability.

All this takes time, and meanwhile, children cannot keep having classes in tents or other makeshift arrangements.

In the interim, therefore, UNICEF is building brand-new temporary (or rather, or semi-permanent) schools for children – More than 200 buildings will be completed by the end of this year. Many of these buildings are more than just “temporary.” In Aceh, for example, communities involved in the reconstruction process have agreed to use the so-called ‘temporary buildings’ as community centres or children’s centres once the permanent schools are built.

Finally, the picture of children a year after the tsunami would not be complete without looking at the poorest and most marginalized children. Because the tsunami hit so many poor communities, some of the affected children had never been able to go to school, even before the tsunami. This problem is now being tackled in various ways.

In India, for example, marginalized children from the fishing and Dalit\(^12\) communities have in the past not gone to school. To prevent this trend from continuing, a number of actions have been taken. The district administration in Nagapattinam has instructed schools to exempt tsunami-affected students from fees for a year. Children from certain vulnerable groups are eligible for free education through government schemes. District education officials, UNICEF and NGO partners began a post-tsunami campaign to identify children not in school and enrol them in a catch-up or bridging programme, with a view to channelling them into the formal school system. In Thailand, the Government is providing education grants to all orphaned children, which cover the period until the child graduates from higher education.

In these and other examples, the spotlight on tsunami-affected communities has also led to efforts that will improve the situation of the poorest and the most marginalized children.
The Ministry of Social Affairs in Indonesia adheres to the usual definitions for separated, unaccompanied and single parent children. “Separated children” are those separated from both parents, or from their previous legal or customary primary caregiver, but not necessarily from other relatives. This group may therefore include children accompanied by other adult family members such as grandparents or uncles/aunts or someone known to the child or from the same community (family friend, neighbour, someone from the same village). “Unaccompanied children” are children who have been separated from both parents and other relatives, and are not being cared for by an adult who by law or custom is responsible for doing so. The child may be cared for by an adult, but this person is unknown to the child or from a different geographical area. “Single-parent children” are children who are living with only one parent and the other parent is known to be dead or unable to care for the child. While this category does not, strictly speaking, belong to the category of separated or unaccompanied children, in many traditional cultures such as that of the Acehnese, single-parent children have the status of orphans and may be registered as such, which can cause confusion in counting.

The numbers of children in India who lost their parents to the tsunami may vary depending on whether the data are from the State or Central Government.

Ring vaccination is a strategy where children are vaccinated in progressively smaller rings around the “index case” until the entire group at risk was protected. The vaccination teams work progressively inwards from a ring drawn around the initial index case.

The incidence of diarrhoeal disease among Sri Lankan tsunami-affected children under five dropped from 17.6% in January to 10.4% in May 2005. Over the same period, the incidence of acute respiratory infection among these children dropped from 69.2 to 41.3 per cent.

Aceh Timur, Aceh Utara and Lhokseumawe districts.

The villages of Batee Shok, Paya Seuvara and Jaboi.

Tests showed either *Plasmodium vivax* or *Plasmodium falciparum*.

Surveys covered only the tsunami areas, and yielded the following results: (i) Percentage of children under five years who are underweight: 43% in Indonesia, 38% in Sri Lanka; (ii) percentage of children suffering from wasting: 11.4% in Indonesia, 16.7% in Sri Lanka; (iii) percentage of children suffering from stunting: 38.1% in Indonesia, 20.5% in Sri Lanka. The prevalence of wasting is a good indicator of acute undernutrition, often caused by a combination of food deficits and/or illness.

The exceptions to high rates of child malnutrition are Malaysia (12%) and Thailand (19%).

Biodisk and air flow system waste water treatment, where the biological purification of the sewage water is effected by rotating immersion discs exposed alternately to the wastewater and the atmospheric air. The disks’ surfaces perform biological treatment by decomposing soluble and suspended organic material.

In addition to the monster earthquakes of 26 December 2005 (magnitude 9), and 28 March 2005 (magnitude 8.7), Aceh and North Sumatra have been subject to numerous earthquakes, varying in magnitude, but many of them causing further structural damage.

The Dalit are a marginalized group who are discriminated against by the mainstream population. They prefer not to be categorized along caste or ethnic lines.