

Building back better: Lessons learned from the response to the Indian Ocean Tsunami in terms of long-term development, disaster risk reduction and resilience building in Aceh, Indonesia

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Introduction

The upcoming 10th anniversary of the disaster provides an opportunity to reflect on lessons learned from the immediate response, recovery and reconstruction efforts of UNICEF to the long-term development including emergency preparedness and disaster risk reduction support that the organization provided to the government in Aceh. In recent years, humanitarian programming has been particularly keen on utilizing the concept of 'resilience' so that response to natural disasters can move away from being short-term to a more sustainable situation where communities themselves are empowered and have the necessary structures in place to allow them to withstand shocks and prevent further vulnerability.

The story of Aceh's transition demonstrates how the province "built back better" by adopting a phased approach to its humanitarian response. In parallel, it invested in emergency preparedness, disaster risk reduction programmes, and resilience building efforts in the province. These processes served as key enablers to Aceh's transformation into a strong and bustling province which today bears little burden of the devastation that happened a decade ago.

Within this context, looking back on UNICEF's post tsunami efforts in Aceh and Nias, this paper provides an understanding of two key processes which can serve as lessons learned towards supporting disaster risk reduction programmes in other countries.

- 1. The transition from humanitarian response to sustainable development programming:** In the case of the Indonesian islands, the post tsunami efforts not only focused on short term response and recovery, but built upon humanitarian programming from the onset to create long term development programmes and resilience building among the local population. The central idea was to make sure that this was not a one-time effort, but that natural hazards which are frequent in Indonesia do not become major disasters for thousands of children and families, particularly those most vulnerable and disadvantaged. The paper thus focuses on how the *build back better* process was operationalized, through specific examples of how UNICEF's tsunami response and support to the government served as the foundation for development programmes for the Aceh region or, as the case may be, transformed from humanitarian programming to sustainable development goals. In several cases, the different elements of the transition process in themselves contributed to the development of an effective disaster risk reduction system for the province.
- 2. Indonesia's Emergency Preparedness and Disaster Risk Reduction (DRR) approach:** At the same time, in parallel to humanitarian programming efforts, Indonesia invested in structures, systems and mechanisms that were developed and mainstreamed by the government and development partners to ensure that communities and lives could be saved when hazards or shocks occurred. After the catastrophe, the Government of Indonesia, with support from its development partners such as UNICEF, veered all its efforts towards recovery and sustainable systems building efforts that could reduce the risks of a hazard becoming a disaster. The reconstruction process in fact marked the beginning of government-led programming for disaster risk reduction in Indonesia. In the latter part of this paper, some of the key components of Indonesia's DRR approach have been outlined, including information on how the approach helped to shape additional policies and national standards in this regard.

Transition from humanitarian response to sustainable development programming in Aceh

i. UNICEF's immediate response to the Indian Ocean Tsunami 2004: The largest emergency operation to date

Almost 10 years ago, on 26th of December 2004, countries around the Indian Ocean were hit by a devastating tsunami caused by a massive earthquake reaching 9.13 on the Richter scale. More than ten countries were affected by the deadly waves, however, none of them was tested like Indonesia. Along the coast of Aceh province in the far west of the country around 170,000 people died and half a million people were left homeless and in urgent need of shelter, food and medical care.

Within 48 hours, UNICEF arrived in Aceh and spearheaded what would prove to be the largest emergency and recovery operation in UNICEF's history¹. While the tsunami response was ongoing, in early 2005 an earthquake hit Nias, an island 130 km off the western coast of Sumatra, destroying nearly 30 per cent of buildings and causing around \$400 million in losses, apart from adding to its isolation. For both Aceh and Nias, UNICEF rushed in staff and emergency relief supplies, taking the lead in restoring water and sanitation facilities, reopening schools, establishing children's support centres, reuniting thousands of families, and supporting the government to deploy social workers and special police to offer child protection services for the nearly 3,000 children orphaned by the tsunami.

Peacebuilding in Aceh and the Opportunity for Reconstruction

The enormous humanitarian aid programmes launched by the international community represented a critical turning point for Aceh, where earlier peace efforts had failed to end a 30-year conflict between the separatist Free Aceh Movement (GAM) and the Indonesian government. Relief operations launched in response to the tsunami emergency prompted both sides to agree immediately to a ceasefire and brought in a massive international presence that offered unique opportunities to combine reconstruction with peacebuilding efforts.

After decades of war, a peace agreement was signed in August 2005, granting Aceh special autonomy and including the withdrawal of government troops from the province in exchange for GAM's disarmament. Subsequently, government restrictions on the entry of foreign aid workers into Aceh were removed enabling a massive international humanitarian relief operation. The influx of millions of dollars in funding from international donors to support Aceh reconstruction efforts resulted in investments in rehabilitation and development across the province, beyond the tsunami-affected areas.

Ironically, it has been said that today's Aceh grew out of the tsunami devastation, as the process of reconstruction and system-building in the province could not have been made possible, had a disaster of that magnitude not turned the world's attention to Indonesia's Aceh province.

¹ UNICEF's tsunami response operations encompassed 9 countries in total including Indonesia, Maldives, Sri Lanka, Malaysia, Thailand, India, Myanmar, Bangladesh and Somalia.

Prior to the tsunami, the province of Aceh did not have systematically developed programmes and plans for emergency preparedness. This was partly due to the fact that the region was conflict-ridden providing only limited access for international experts. However, despite being one of the most emergency-prone countries in the world, Indonesia as a whole also was not properly prepared for a humanitarian emergency/natural hazard of such magnitude.

The overall responsibility for leading the reconstruction effort lay with the Government of Indonesia, who created the Agency for the Rehabilitation and Reconstruction of Aceh and Nias (BRR) to lead and manage the recovery process.

UNICEF engaged with the Provincial Government and BRR to not only respond to the immediate needs of the community, but also supported the transition from humanitarian response to longer-term, systemic, and sustainable development programmes in Aceh.



This support was applied in four phases through 2009, beginning with emergency relief operations and progressing to transitional recovery, reconstruction and disaster risk reduction (DRR) integrated into long-term development.

ii. Key elements of the transition process from humanitarian response to sustainable development

Reconstruction and Rehabilitation (*Building back better*)

From 2005, under the overall leadership of the BRR, the Aceh and Nias islands witnessed massive rebuilding efforts of infrastructure from roads to schools, hospitals, harbours and religious facilities. The institution was also involved in clearing tsunami debris to allow for re-cultivation.

The provision of tents to meet emergency housing needs was soon followed by the construction of permanent houses, clinics, schools, government buildings and other infrastructure. More than 140,000 houses, 1,700 schools and nearly 1,000 government buildings were built as well as 36 airports and seaports and 3,700 kilometres of new roads. Farming, fishing and other local livelihoods were re-established with the support of foreign aid development programmes, commerce recovered rapidly and economic activity progressed steadily through the years of reconstruction that followed.

Led by BRR, partners including UNICEF not only focussed on the quantitative aspects of infrastructural needs, but careful attention was paid to ensure that the quality of reconstruction work was not compromised. The concept of *Building back better*, i.e. use of high quality materials and verification of construction standards to ensure that these buildings were earthquake-resistant, was introduced and operationalized.

UNICEF's support to the massive reconstruction efforts in Aceh following the 2004 tsunami – based on the concept of *Building back better* - continue to shape Indonesian government policies and responses to child protection and children's rights.

Shift from immediate provision of health services to investing in healthier lives

UNICEF's immediate and effective response to the emergency, supported by the Centre for Disease Control and Prevention (CDC) who provided human resources, initially focused on the urgent need to provide clean water, basic sanitation and measles vaccination to displaced communities. However, from the early stages of the response it also aimed to support long-term improvements in public health.

For the reconstruction phase, UNICEF was nominated as the coordinating agency for health and nutrition in six of the most affected districts in both Aceh and Nias. In other less affected districts, it provided technical and logistic support to assist the World Health Organization (WHO) and district health authorities. Actions included large-scale training for health care workers and midwives in managing illness and severe acute malnutrition, reproductive health, immunizations, and creating awareness on breastfeeding and child feeding practices. Further to this, UNICEF, in collaboration with WHO, supported the production of guidelines on infant feeding in emergencies and handbooks on maternal and child health care, which were distributed to health partners. The organization also focused on building and equipping mother-and-child health centres and health facilities throughout the two provinces.

During the second phase of reconstruction, UNICEF also funded and monitored the 2007 Demographic Health Survey (DHS) in Aceh.

Immunization: The emergency measles vaccination campaign was well funded by the American Red Cross and once the emergency affected areas of Aceh were covered, the campaign was expanded nationwide leading to marked reductions in measles cases nationally. From 2005 to 2009 UNICEF supported eight rounds of polio vaccinations and also a provincial measles and tetanus campaign. It also supported the Government of Indonesia on the reestablishment of the routine immunization programme and cold chain facilities including the provincial cold room that was destroyed by the tsunami.

UNICEF's post-tsunami response to immunization contributed positively to a shift in the government's previously reluctant stance towards immunization: The national policy shift to conduct wide age-range immunization campaigns emanated from the large-scale and widespread international participation during immunization activities following the tsunami. The immunization interventions post tsunami gave way to the recognition of the importance of conducting campaigns not only as a humanitarian response, but as part of regular health service provision. Subsequent efforts in immunizations have provided comprehensive analysis and strengthening of the cold-chain nationally, whilst lessons learned from maternal and neonatal tetanus elimination in Aceh have been and are still being applied nationally as Indonesia edges ever closer to the elimination of tetanus.

The "Posyandu Plus"-concept for integrated services of child survival and development applied in the Aceh reconstruction operations has received wide recognition from health and education authorities at the national level and has served as a model for other provinces in developing holistic, integrated community-based child health and early childhood development services.

Combining medical and legal assistance: At the Bhayangkara Hospital in Banda Aceh, UNICEF helped set provincial authorities to up a special unit with integrated health and legal facilities, to bring together social workers and specially trained police officers to investigate cases of women and children brought to the hospital for injuries related to domestic violence. Prior to the tsunami, investigation by the police of cases related to domestic violence were not commonplace. The need to respond to a large population at a time when the number of front line workers were limited paved way for a practical understanding of how efficacy in providing front line response can be improved when there is programme convergence.

Malaria prevention: In the immediate period following the tsunami, malaria posed a significant threat, given the expanded habitats for brackish water malaria vectors. While the health infrastructure of the province was largely destroyed, including medical equipment and human resources, aid from the central government of Indonesia, various UN agencies and NGOs facilitated a rapid recovery of the malaria programme and improvements of the health infrastructure, including extensive training of staff and rehabilitation of facilities.

Zero Malaria in Sabang

When the post tsunami malaria prevention efforts commenced, the district of Sabang located on the western-most part of the archipelago of Banda Aceh was considered a logical location to carry out initial efforts towards malaria elimination in Indonesia. Due to a combination of geographical, economic and political reasons, Sabang was a symbolic starting point for the long and hard process of an Indonesia-wide malaria elimination programme. It represented a potent symbol for the beginning of a national movement and one that eventually required scaling up in over 300 districts over the coming years.

In the district of Sabang, which has a size of approximately 156 square kilometres, these improvements included widespread malaria control activities, such as an extensive indoor residual spraying (IRS) programme in the year following the tsunami, large-scale distribution of long-lasting insecticide treated nets (LLINs), and a change in the malaria treatment policy towards artemisinin-based combination therapy (ACT) as first-line treatment for uncomplicated cases. The aim was to eliminate the danger of malaria outbreaks by eradicating the parasite itself. Supporting the Provincial Government, UNICEF facilitated collaboration with communities, the private sector and public health facilities to build a rapid and effective surveillance system that has eliminated malaria incidences from Sabang.

Since 2009, every case, whether detected passively or actively, has been included in a database, with information on age, sex, occupation and other aspects that may influence a person's malaria risk; history of disease (travel history, fever/malaria history, contact history); all information related to malaria diagnosis; treatment; notification of case and epidemiology investigation, source of cases (passive case detection, active case detection, survey), location (including GPS coordinates), and nearby *Anopheles* larval habitats. Communities have been actively engaged in finding active cases of malaria through community volunteers (cadre), which is funded by the district budget.

These efforts resulted in a rapid decrease in malaria, with reported incidence declining from 87.8 infections per 1,000 people in 2004 to 4/1,000 in 2007, and to less than 1 case per 1000 in 2011, which is the level at which action towards elimination can start. Since the introduction of ACTs, there has been no malaria fatality in Sabang, and there has been no case of indigenous transmission since 2011. One key risk however is the importation of cases from mainland Aceh, where pockets for malaria transmission remain. In both 2012 and 2014, a single case was detected in Sabang, which was a consequence of secondary transmission from an imported case from another area in Aceh where malaria was still endemic. Sabang has since begun setting up systems for screening of migrants, both via the port health authorities and via community-based surveillance.

Of equal importance, UNICEF is assisting the provincial government in mapping malaria cases throughout the province in order to understand where cases are occurring and what the transmission dynamics of malaria parasites are throughout the province. Quality assurance (QA) for malaria diagnosis, initiated in Sabang, has also been scaled-up to seven more districts in Aceh Province. Advocacy is under way to adopt this approach as the national system for QA. Additionally, Aceh Province is the first province, which launched a Centre of Excellence for the integrated diagnosis of AIDS, TB and Malaria, where an integrated system for diagnosis and management of three important communicable diseases in Indonesia was established.

The Sabang model is now being applied throughout Aceh and Indonesia and has been the subject of a study tour by heads of malaria control agencies from numerous Asian countries.

Since the tsunami, UNICEF's support in terms of funds and technical support has served as a catalyst for greater government investment in malaria control and broader health systems enhancements. The budget allocated by the local government has steadily increased, with funds coming from different funding mechanisms within the government. Good reporting from hospitals and private physicians has been achieved along with rapid investigation of reported cases. The programme succeeded because of the high level of political commitment coupled with community engagement and excellent technical implementation of malaria surveillance by health department staff.

Nutrition:

Lessons learned on the ground in Aceh have served the UNICEF country office well in terms of developing Integrated Management of Childhood Illness (IMCI) and community-based IMCI in remote areas of eastern Indonesia. Nutrition programmes initiated in Aceh have helped UNICEF better integrate nutrition services with broader health initiatives in Papua and East Nusa Tenggara (NTT), while UNICEF's integrated maternal and child health programme targeting eastern Indonesia relies heavily on programmes developed on the ground in post-tsunami Aceh.

Promotion of breastfeeding in the aftermath of an emergency – replication of learning from the tsunami experience

One of the lessons learned from the Aceh response has been the need to promote breastfeeding, particularly since it has been very common in Indonesia to donate Breast Milk Substitutes after an emergency. Based on Aceh's experience, UNICEF advocated for the promotion of breast-feeding after Yogyakarta, and these were the results.

Issue: A rapid assessment among affected households within the month following the Yogyakarta-Central Java May 2006 earthquake revealed that wide distribution of infant formula milk donation had resulted in an increase in formula milk consumption among children. Children who were fed with the infant formula were twice as likely to have diarrhoea (11.5 vs. 25.4 per cent) than those who were not.

Action: The experience from the Aceh tsunami had revealed the need to ensure quick response at the community level, involving district government authorities and frontline workers to provide the necessary knowledge and information to lactating mothers and the larger community. To take action on the assessment findings, UNICEF and local district health authorities undertook the following:

- ✓ Training of community-level breast feeding promoters and health workers; by 2009, 15 facilitators, 409 counselors, and 1,257 motivators were trained on Infant and Young Child Feeding (IYCF).
- ✓ Advocacy for developing local policies to promote breast feeding.
- ✓ Development of a Communications for Development (C4D) campaign: Reinforcing pro-breast feeding messages (with posters, models of breasts and baby dolls, and demonstration videos) in lactation counseling rooms in health centres, hospitals, and government offices. Outdoor media amplified messages to a larger audience. The mass media campaign (including on television) was replicated nationally by the Ministry of Health and UNICEF.
- ✓ Health system strengthening: Improving health facilities under district health office supervision, while linking with community institutions. To that effect, each community health centre in the district had 1 "lactation counseling centre" and at least 8 breast feeding counselors in every health centre.

Results

1. Increase in rate of exclusive breast feeding.
2. Development of local legislation in support of breast feeding. This includes a call for lactation rooms in all health centres and public offices. It also specifies that the district head has the authority to give rewards or sanctions to health service facilities, public places, and government agencies/offices in support of the successful implementation of immediate and exclusive breastfeeding.
3. Integration of breast feeding counseling into routine services at health facilities.
4. Allocation of district funds for IYCF programme activities.



Water, Sanitation and Hygiene: The tsunami affected existing water supplies in many ways. In areas that were hardest hit by the impact of breaking waves, many of the supply and distribution systems were completely destroyed. Even where the impact was less forceful, rising waters inundated surface sources and unprotected wells with seawater, sand, debris and, in many cases, faecal matter from coastal areas where open defecation was common and sanitation facilities were largely unimproved. Soon after the disaster, UNICEF water and sanitation experts were among

the first on the ground, together with other agencies like Public Works, GTZ, Oxfam, IFRC and others, coordinating the delivery of clean water to displaced people.

UNICEF supported the rebuilding and construction of at least 22 more permanent water treatment purification plants in tsunami affected areas as well as areas that were not affected and began producing large volumes of potable water. Water from the plant was used to fill tanker trucks, and plants were also positioned near IDP camps to supply them directly.

In 2007, the water, sanitation and hygiene sector made a strategic shift from recovery and reconstruction to sustainable development. Water and sanitation activities in support of displaced persons decreased, water tankering, desludging of septic tanks and removal of solid waste from IDP settlements ended, and many Temporary Living Centres were decommissioned as 1,800 families returned home.

UNICEF's Water, Sanitation and Hygiene (WASH) programme included support for rehabilitation of dozens of water treatment facilities that, nine years after the tsunami, have continued to provide clean water to a million citizens of Aceh.

During the second phase of recovery, together with partners like International Relief and Development better hygiene and sanitation practices were taught in around 154 schools across Aceh, often through board games and puzzles. The elements of this sanitation in schools programme later fed in to the overall WASH in Schools programme that the Government of Indonesia is presently scaling up UNICEF's support.

The Expansion of Siron's Water Treatment Plant

As the coordinator of water, sanitation and hygiene activities after the tsunami, UNICEF supported the rehabilitation of vital water and sanitation infrastructures in Aceh so that communities could regain access to safe water and improved sanitation facilities. Among many of the facilities that were rehabilitated, the water treatment plant in Siron is an example of how even a decade later, a plant that was started up by UNICEF as an immediate response to the tsunami, continues to benefit around 50,000 local residents who receive water delivered via pipeline to their homes. Over the years following the reconstruction process, the plant remained as the principal source of clean water, with local funds having supported the expansion of the facility when tsunami funds were depleted. Today it stands as a self-sustaining institution that is testimony to the reconstruction efforts that took in the last decade.

Moving from family tracing and reunification initiatives to child protection systems

The existing system for child protection in Aceh today grew out of initiatives adopted in response to the 2004 disaster. Even before the tsunami struck, the separatist insurgency had broken up families and thousands of children had lost parents to insurgency-related violence but it was not possible to provide child protection services since aid organizations did not have access to communities.

Of all the tsunami-affected countries, Indonesia faced the greatest need for child protection measures, given the sheer numbers of orphaned and separated children.

Family protection and reunification: A Family Tracing and Reunification system that was set up after the tsunami registered almost 2,900 children as separated from their parents or guardians. The system involved 11 governmental and non-governmental organizations, and was coordinated by UNICEF and the Ministry of Social Affairs. UNICEF supported the tracing and reunification process by setting up 21 Children's Centres. A total of 119 children were reunified with their surviving parents. In another 2,430 cases in which the parents could not be found, the children were integrated in their extended families, based on the Islamic practice of guardianship for orphans. The remaining 350 children were either moved to orphanages or Islamic boarding schools, stayed with other families in relocation settlements or set up their own household.

Together with the Ministry of Social Affairs, the Ministry of Women's Empowerment and Child Protection, the province's Department of Social Affairs, local NGO PUSAKA and Muhammadiyah (the country's second largest Islamic organization), the Children's Centres organized tracing and reunification, psychosocial support, recreational activities for young children and adolescents and launched campaigns to promote public awareness of child rights issues.

UNICEF's advocacy efforts at the national level led to the issuance of a circular from the Ministry of Social Affairs to stop taking children out of Aceh. This circular was sent to ports of entry and police offices to prevent family separation during the initial period following the tsunami. UNICEF also established Women and Children's Desks at district police offices in tsunami-affected areas.

Child Friendly Courtroom

Justice for children has been strengthened in Aceh since the early emergency response to the tsunami. Police women, together with volunteers and social workers, were trained on child-friendly procedures and were placed in IDP centres to provide support for children, including protecting them from exploitation and trafficking, and handling children in contact with the law. These efforts formed the foundation for the establishment of children and women's desk units in every district police station. UNICEF supported the renovation of two children and women's desks, while the rest were established under the Aceh Police programme.

Other efforts to promote child-friendly justice included building the capacities of law enforcers such as prosecutors, judges, advocates and social workers to play an important role in facilitating formal legal processes. To this effect, a child friendly courtroom was initiated by UNICEF in one District Court and thereafter replicated by the Supreme Court in several Courts in Aceh. This encouraged the diversion process to reach up to 50% at the investigation level. Social workers deployed by the Aceh government in every sub-district also play an important role in providing assistance to children in contact with the law, minimizing risks for children, and assisting families to receive social welfare support.

The Juvenile Justice system in Aceh also ties in with the Province's existing customary laws that concede conflict resolution at the community level (village level), including cases of children in conflict with the law, to exercise diversion and restorative justice facilitated by village committees, before these are reported to the police.

The diversion measure initiated by law enforcement agencies and communities to address children in conflict with the law influenced national discussions that led to the adoption of a new law on Juvenile Justice in 2012, which changes the legal age of criminal responsibility from 8 to 12 years, increases the age of children receiving custodial sentences from 12 to 14 years.

UNICEF's focus on child protection has continued throughout the past decade and was extended to other regions of Indonesia. For instance, similar child protection strategies were applied in response to the 2006 Yogyakarta earthquake and the 2010 Merapi volcano eruption.

To support legal reform, UNICEF supported the drafting of the Child Protection Qanun approved by Aceh's provincial parliament in 2008. The *qanun*, a local regulation based on the canonical laws of Islam, was a milestone for the legal protection of children's rights, enacted to ensure that government, communities and the general public provide a safe, protective environment for children. UNICEF supported the development of the implementing regulations and standard operating procedures following up the enactment of the Child Protection Qanun.

Enhancing child protection systems continues to be a top priority for UNICEF Indonesia, including promotion of social welfare services for children, advocacy for laws and policies to safeguard children's rights and promotion of a justice system that effectively tackles violence, abuse, exploitation and neglect of children.

Building on the Aceh experience on juvenile justice, UNICEF's technical assistance to the Indonesian government supports juvenile system reforms and has successfully advocated for improving the legal framework to strengthen protection of children's rights.

In July 2012, the National Parliament passed the Juvenile Criminal Justice System Law, a milestone in the process of establishing a specialized Justice System for children as mandated by international law.

Evolution from Tent Schools to Quality Education

In the wake of the tsunami, UNICEF's immediate response to emergency educational needs included:

- Recruitment of 1,110 temporary teachers for 13 districts
- Setting up more than 1,000 makeshift tent classrooms
- Providing 230,000 textbooks and 6,940 'School-in-a-Box' teaching aids and supply kits for all children in Aceh and Nias (830,000).

Launched in collaboration with Save the Children, World Vision, the International Rescue Committee, AusAid, USAID and other aid agencies, the Back-to-School Campaign enabled children survivors of the tsunami to resume their education in the midst of widespread destruction. Complete sets of management and teaching materials and aids were distributed to all UNICEF supported schools in Aceh and Nias.



From this initial emergency response, UNICEF embarked on a \$100 million school reconstruction project building 345 new, earthquake-resistant child-friendly schools.

The quality of infrastructure and future sustainability of the schools were important considerations. Thus when the new schools were being built, UNICEF paid careful attention to the quality of construction, ensuring seismic resistant buildings. In addition, the schools included child-friendly features such as access ramps for students with disabilities, a large courtyard

for play, as well as measures to ensure adequate lighting and ventilation. The entire phase of reconstruction set new standards in earthquake resistance and safety, building schools with two wide exit doors per classroom and emergency stairs.

Muhammadiyah Satu Primary School in Aceh: From 2004 to 2014

When the disaster struck, this school in Aceh was completely washed away. Only 17 of the 300 pupils survive today. Muhammadiyah Satu Primary School was the first permanent school rebuilt in Banda Aceh, based on safety standards to withstand earthquakes of up to 8.0 on the Richter scale.

The new schools have well-ventilated classrooms with wide exit doors. The buildings are built on an elevated platform to prevent flooding during the rainy season. The defining quality of the schools is that these comply with UNICEF's 'child-friendly' standards, signifying that each of these schools have safe drinking water, separate toilets for boys and girls and access for children with disabilities, among other facilities.

In line with Aceh's Disaster Risk Reduction initiatives, this elementary school regularly conducts emergency drills to increase awareness among school children on how to survive and evacuate safely in the event that another disaster strikes. A school disaster preparedness plan includes designated exit routes and regrouping areas for each grade or year to ensure smooth exit and easier accounting for all the children, once they are safe. The children are well versed on emergency drills, with songs to help them remember what needs to be done when the earth starts to shake.

When an earthquake of 6.7 on the Richter scale hit Aceh in 2013, it hardly left a scar on the school walls.

In 2011, using the module developed by UNDP and the Provincial Education Office (PEO) Aceh, UNICEF trained teachers in three districts (Aceh Timur, Aceh Besar and Aceh Jaya) on how to integrate DRR into the curriculum. In addition, 30 key stakeholders (from the education office to other relevant partners including NGOs) have been trained on a Front Line Responder Training (FLRT) module to improve capacity and coordination among stakeholders.

During the third phase of the tsunami response, UNICEF contributed to the introduction of Disaster Risk Reduction through the Peace Education programme and Emergency Drill Training for teachers and children in all schools that it constructed.

Over the decade following the early post-tsunami recovery and reconstruction period, UNICEF's education support in Aceh has shifted its focus from school access to improving the quality of education in schools across the province.

To sustain the huge investments and look beyond infrastructure building, since early 2006, among active donors supporting 'Quality Education Improvement' in Aceh province, UNICEF continued to play a leading role with the Provincial Education Office (PEO) in providing children with quality education in schools. Within the context of quality education, UNICEF developed a programme called "Creating Learning Communities for Children" (CLCC). This involved the appointment of District Master Trainers on School Based Management who focus on standardizing the quality of management in schools, in the 23 districts in Aceh. These trainers subsequently trained all teachers in UNICEF constructed schools and also trained all schools in the districts.

Early Childhood Development Centre: Paud Nurul Hada

The **PAUD Nurul Hada** is an example of an Early Childhood Development centre that was established in 2005, comprised of a team of community leaders and UNICEF volunteers in Cot Karieng village. It started in the garage of a volunteer's house where a start-up grant was provided by the Aceh Provincial Education Office, two years after it was operational.

2007, when a temporary UNICEF post-tsunami school in Cot Karieng was no longer in use, the facility was handed over to the community. The local leaders then decided to turn the space into an ECD centre. After the tsunami, UNICEF trained volunteers in villages where ECD services were not available. Volunteers then advocated to local leaders on the importance of early childhood education.

Since then more villages have established ECD centres. Building on the initial engagement with communities on ECD post-tsunami, UNICEF continued to invest in awareness raising activities such as parental education to increase enrolment and policy advocacy with the Government to increase budgetary support towards making the services affordable as well as ensuring better quality of services.

Prior to the tsunami, the concept of ECD in Aceh was not prevalent, partly because of the internal strife, but also because focus on ECD was not mainstreamed by the Provincial government. Thus what began as a post-tsunami intervention to ensure that children below school age were provided with a safe space has contributed to increased understanding of parents and communities on the overall importance of school preparedness and ECD for children.

Indonesia's Emergency Preparedness and Disaster Risk Reduction (DRR) Approach

Over the last decade, the experience of Aceh has paved the way for systematic emergency preparedness and disaster risk reduction efforts to be put in place in Indonesia. In recent years, the country's DRR approach has focused on two key issues:

- Ensuring that at all levels of society, from the family, schools, and social institutions to the government, mechanisms for implementation have been put in place including several prevention and mitigation measures that are applied through sectoral interventions.
- Alongside, partnership efforts between the government of Aceh and UNICEF among others invested in building resilience within the community. In its simplest terms, resilience has meant enabling the Acehese population to be better equipped to respond to a natural hazard if and when it happens.

Disaster Risk Reduction and Resilience Building: A Conceptual Framework for Understanding

As outlined by the UN Office for Disaster Risk Reduction, DRR is “the concept and practice of reducing disaster risks through systematic efforts to analyse and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events.”

In January 2005, only three weeks after the Indian Ocean tsunami, the UN General Assembly coincidentally convened the global Conference on Disaster Reduction in Japan. It adopted the Hyogo Framework for Action, which establishes the expected outcome for DRR, as: “The substantial reduction of disaster losses, in lives and the social, economic and environmental assets of communities and countries.”

As one of the signatories to the Framework, the Indonesian government, through a special institution which was established for coordination of reconstruction and rehabilitation activities in Aceh and Nias known as BRR, took a significant lead in ensuring that the recovery and reconstruction process upheld the principles of the Framework.

The Acehese community demonstrated remarkable strength and ability in coming together, responding, and recovering from the widespread devastation that uprooted their lives as they knew it. The adaptability of the community and their willingness to engage were instrumental to the success of reconstruction efforts. This was one of the key learnings from UNICEF's tsunami response in Aceh – even in the face of crisis, local communities are quick to come together in solidarity; the determinism, enthusiasm and entrepreneurial initiative of the population paved the way for the province of Aceh as we see it today.

Resilience building post-tsunami has been linked to two key issues: a) timely and efficient reconstruction of the physical infrastructure so that it could withstand future challenges and providing local communities with an environment that was conducive to long-term development and b) protecting and strengthening human and social capital so that the community themselves developed the ability to adapt and face any future crisis without having to become further vulnerable as a result of it.

Thus it is through government structures, community engagement and participation mechanisms that disaster risk reduction and resilience programmes have been developed and mainstreamed by the Provincial Government with support from key partners including UNICEF.

i. Highlights of Indonesia's Emergency Preparedness and Disaster Risk Reduction Programme

The Indian Ocean Tsunami triggered a paradigm shift in Indonesia from traditional disaster management (emergency preparedness and response) to disaster risk management, with an increased focus on prevention and mitigation.

- Indonesia has made substantial progress in mainstreaming DRR into national and local development policies and programmes. Disaster Risk Management has become a top priority of the Government of Indonesia, as reflected in the Disaster Management Law and the Medium-Term Development Plan (2010-2014) and, most recently, in the President's *Master Plan for Reducing the Tsunami Risk*, expected to be finalized in 2014.
- Currently, the Government is planning its new National Development Plan (RPJMN) 2015-2019 and a Disaster Management Plan will be a component of the national five year development plan.
- The Government has operationalized its commitment to the *Hyogo Framework for Action* through enactment of the *Disaster Management Law No. 24* in April 2007 that outlined a new perspective on disaster risk management and emphasized the importance of engaging in risk management before, during and after emergencies.
- Following this law, the National Disaster Management Agency (BNPB) was established in 2008 as the designated national body for disaster risk management in Indonesia. The Agency supports several initiatives including conducting disaster risk analyses and risk mapping; organizing disaster risk reduction forums; supporting contingency planning initiatives; and conducting trainings for bureau staff. To strengthen DRR at sub-national levels, BNPB helped develop the 'Disaster Resilient Village' programme. As of 2013, around 1,023 villages have signed on.
- Disaster management authorities in Indonesia were among the first in the region to form a National Platform for DRR (PLANAS PRB), which gave voice to civil society, international organizations, and the UN. The Convergence Group, a loose collection of international DRR actors, held a series of workshops in 2006, 2007 and 2008 to form PLANAS PRB, which was officially launched in April 2009.
- After the Indian Ocean Tsunami 2004, the Government of Indonesia with support from other countries, committed to support the Indonesia Tsunami Early Warning System (InaTEWS). At present, under the coordination of Agency for Meteorology, Climate and Geophysics (BMKG), in addition to building the National Tsunami Early Warning Centre, Indonesia has become one of Regional Tsunami Service Provider together with India and Australia that serve all countries in the Indian Ocean region.
- More than 100 sirens have been placed in the region of Aceh. Earthquake related messages and warning messages are widely disseminated to the community through radios, social media, and mobile phone messaging. The reliability of the system is validated each year on the 26th of December, when Tsunami drills are carried out through Aceh.

- In 2013, to emphasize the centrality of children in DRR, UNICEF conducted the child centred risk assessment to identify the children's vulnerabilities with regards to specific hazards. This risk assessment will serve as an advocacy tool for policy-making and support risk informed development planning at the provincial level. The growing commitment to DRR makes it imperative for UNICEF to strengthen its child-centred DRR approach in order to remain at the forefront of global, regional and national developments.

The lessons learned through the humanitarian response programme in Aceh thus reveal that the harsh realities of post-tsunami Aceh did much more than stimulate a rapid, classic emergency response: indeed, the tsunami catalysed UNICEF and the Government to respond with innovative programmes that continue to improve children's lives in Aceh today and resonate throughout the archipelago.