

The Use of Emergency Education and Recreational Kits in Aceh: A Review

Introduction

Whilst education is increasingly recognized as a crucial component in aid responses following a natural disaster or complex emergency, relatively little formal research has been conducted to highlight lessons learned of such interventions. In particular, there have been few attempts to provide in depth assessments on the individual areas which constitute an emergency education response following a natural disaster, namely with regards to: access and learning environment, teaching and learning, teachers and education personnel, education policy and coordination, participation and resources, assessment monitoring and evaluation¹. In seeking to address this gap, UNICEF's East Asia and the Pacific Regional Office contracted a review of their pre-packaged emergency education and recreation kits in Aceh Province, Indonesia following the tsunami in December 2004. This review draws on existing literature concerning the use of pre-packaged kits as instructional and recreational aids in post-emergency settings and identifies the strengths and weaknesses of the implementation of these in Aceh. Furthermore, a series of recommendations are provided on ways in which the use of the School in a Box and the Recreational Kit could be improved, including potential content of future boxes and support materials which could assist in increasing their effectiveness.

The framework chosen for this review is that recommended by the Danish International Development Agency and is based on the following evaluation categories: efficiency, effectiveness, impact, relevance and sustainability. In order to ensure a predominant rights-focus to this review, each category is further considered in relation to the extent to which education/recreation was made accessible, adaptable, acceptable and available² as a result of the School in a Box and Recreation Kits. Triangulation of the information gathered was made possible through individual and semi-structured interviews with teachers, students, Child Centre Facilitators, Ministry of Education personnel, UNICEF staff and NGO partners³. In order to better understand the use of teaching and learning materials in the classroom, the review included a period of classroom observation in each school visited. In addition, information from students and children attending the Children's Centres was gathered through structured drawing and ranking activities. A key constraint encountered during the review was the difficulty for teachers and children to remember details of relief efforts in the first few months following the tsunami, as they

¹ These categories are taken from the Interagency Network on Education in Emergencies (INEE), in their publication Minimum Standards for Education in Emergencies, Chronic Crises and Early Reconstruction, DS Print/Redesign London 2004. Within these categories, greater attention has been placed by research and documentation overall on access and learning environment, teachers and education personnel and teaching.

² More information on the 4 A framework can be found in Katarina Tomasevski's publication, Human Rights Obligations in Education: The 4 A Scheme

³ see Evaluation Schedule in Annex A

were struggling to cope with loss and sudden change during that period. Furthermore, humanitarian staff currently in post were for the most part not present themselves during the immediate post-emergency phase and as such, could only relate what they had garnered from their predecessors.

As with any review of a post-emergency intervention, and particularly with the scale of the disaster befalling Aceh, the overwhelming logistical challenges in providing emergency education must be taken into consideration alongside the benefit of hindsight. This review should in no way detract from the achievements of the UNICEF Indonesia programme, whose experience will contribute significantly to further improving the development and use of pre-packaged education and recreational materials in post-emergency settings.

Pre-Packaged Emergency Education and Recreational Materials

With the increased recognition among aid agencies, donors and governments of the importance of supporting educational and recreational activities closely following a crisis, has come a corresponding debate on the most appropriate manner by which such support should be provided. Central to this debate is the issue of the provision of materials and resources- what these should consist of, how they should be distributed and in what time frame. Since the early 1990's, the idea of pre-packaging emergency educational and recreational materials into kits has been promoted as a key method by which organizations can be more efficient and effective in meeting children's rights to education following an emergency. Emerging initially from an African context with use in Somalia, Rwanda and Angola, kits have since been used in both post conflict and natural disaster settings- including those countries in Asia affected by the tsunami in late 2004. Whilst there is an increasing amount of literature documenting the utilization of education and recreational kits, it must be acknowledged that the majority of these focus exclusively on their use in complex and post-conflict settings. Relatively little research or reviews have been conducted on their use following natural disasters.

Three kits in particular have garnered attention through their use in various emergency contexts- the Teacher Emergency Package (TEP), developed by UNESCO and the School in a Box⁴ (SIB) and Recreation Kits developed by UNICEF. The School in a Box is aimed at providing basic educational supplies at the onset of a crisis, allowing for a rapid resumption of structured learning activities for children. While the Teacher Emergency Package contains similar teaching and learning supplies as the SIB, it differs in its vision of the kit as a short-term literacy and numeracy course and accordingly, takes at least three months to adapt and put into implementation. The Recreation Kit was developed in recognition of the importance of sports and play in addressing trauma among children affected by war or natural disasters and contains both indoor and outdoor sports equipment.

⁴ This kit follows a number of other pre-packaged emergency education sets developed by UNICEF including the Basic Education Kit, the Classroom Kit and the School in a Bag.

The debate concerning pre-packaged education and recreation kits in a post-emergency context emerges largely from varying perceptions of the purposes and utility of these. Are they primarily a mechanism to deliver teaching and learning materials? Should they go beyond material distribution to provide curricula for teachers to implement? How do we gauge when a kit is sufficiently complete?

Overall, the most significant impact of kits has been the prompt deployment of materials when/where schools have been destroyed, allowing for a rapid resumption of structured educational and recreational activities. The possibility of stockpiling these kits as an emergency preparedness measure (Sinclair, 2001) have further bolstered educational responses and as such, have drawn attention (within organizations and funding agencies) to the importance of prioritising education and recreational activities following an emergency. It has been put forward that kits can also provide an opportunity to change teaching practices, through the introduction of more participatory and child-centred methods. At a practical level, kits are useful in keeping teaching and learning supplies together (Eversmann, 2000) and protecting these from damage during storage and transit, as well as within the classroom itself. When correctly prepared, kits may also ensure that schools or learning centres receive all the necessary teaching/learning materials simultaneously, instead of receiving materials in a piece-meal manner. Lastly, kits can provide a certain sense of stability or reassurance to teachers as they provide them with the essential materials to structure a class session (Baxter, 2004).

Despite the many strengths of the pre-packaged approach to emergency education interventions, there are equal concerns with its use. The most common criticism is that kits are an overly expensive and logistically demanding way of providing educational or recreational supplies- the content of these often inappropriate to the cultural context due to their 'one size fits all' design (Sinclair, 2001). Detractors also highlight the inefficiency of such kits, claiming that as they are intended for a set number of children they are often disassembled in post-emergency contexts by educators who need to redistribute materials among greater numbers of students. Furthermore, there is the risk of creating a dependency on the kits as teachers and education systems become accustomed to receiving packaged materials even after they become available on the local market. Where curricula has been included in pre-packaged emergency education kits, this has often been criticized as being irrelevant (in over/under assuming teacher's capacities to deliver this) and overlooking any national/local curricula available which pre-dates the crisis. UNICEF has recognized this concern and has therefore purposefully sought to separate the provision of materials with more extensive teacher training or curricula development following emergencies.

Finally, an underlying limitation of UNICEF's pre-packaged approach has been the terminology of the School in a Box itself, which has led to assumptions that everything required to re-start a school can be found within the kit. As noted by Peter Buckland (Sinclair, 2001), "No amount of kits will replace all the other work that it takes to get education going- community mobilization, identifying an appropriate curriculum, obtaining or developing learning and teaching materials, identifying, orienting and training teachers, monitoring standards and so forth".

Pre-Packaged Kits in Aceh

With a series of conflicts in various locations of Indonesia and a propensity for natural disasters, UNICEF's Indonesia programme is well accustomed to the distribution of pre-packaged emergency and recreational materials. Drawing on its experience from education in emergency programmes and in recognition of the need for a customized approach to pre-packaged materials, UNICEF has developed an Indonesian version of the School in a Box. While much of the content of this kit resembles that included in the standard UNICEF SIB, additional items include: children's backpacks, primary textbooks, drawing books, mathematical teaching tools and hygiene/health items. In contrast to the standard UNICEF SIB, there are no slates provided in the Indonesian education kit. An Indonesian version of the Recreation Kit has also been developed, containing local procurements of the same games as that in the one from Copenhagen. Lastly, a Psycho-Social Kit has been developed following the tsunami for use in the Children's Centres, which are also being rolled out to primary schools. These contain more local play items than the recreational kit and serve a similar purpose in seeking to address children's trauma through play.

The tsunami which swept through large portions of the western coast of Nanggroe Aceh Darussalam on December 24th 2004 left 40,900 children/students dead or missing; 2,500⁵ teachers dead/missing and 2,135 heavily damaged/destroyed schools of which 1,521 were primary schools. In all, it is estimated that 115,000 students lost access to proper education facilities⁶. The sheer scale of the disaster meant that humanitarian and relief efforts faced significant difficulties in reaching communities- an indication of which is the relatively late entrance to the affected area by agencies arriving within 7 to 10 days after the disaster. Over the course of 2005, UNICEF and its partners distributed 6,940 School in a Box kits (for 555,200 children) and 4,365 Recreation Kits (for 349,200 children) in Aceh. 75% of the pre-packaged kits were distributed by UNICEF in conjunction with the Ministry of Education, whilst the remaining 25% were distributed directly by partner organizations.

In the first 4 to 6 weeks following the tsunami, four School in a Box kits and two Recreation kits were distributed at various locations (based on where there had been schools prior) regardless of the number of children present in an area. The distribution was done in conjunction with the Provincial Education Ministry, based on data provided by District Education Offices. By late February the situation had settled somewhat, with attempts made to calculate the number of children in a location and provide kits accordingly. The success of the materials can be seen by the number of organizations and teachers themselves who came directly to UNICEF requesting the SIB or recreation kits. The last district to receive kits was Aceh Jaya, as land access was extremely difficult and kits had to be distributed by boat and even by helicopter in some situations.

⁵ Figures relate from kindergarten to university level

⁶ Figures taken from Education Response in Post-Tsunami/Earthquake: Aceh and Nias, (Draft) December 2005, S. Aoki, UNICEF

In seeking to better understand the successes and limitations of pre-packaged kits and their utilization in Aceh, it is important to recognize the extremely weak state of the education sector in the Province prior to the tsunami. Until the cease-fire declared in 2005, schools were specifically targeted by warring parties and many were destroyed and never rebuilt. Furthermore, many teachers were untrained and had very few teaching/learning materials to conduct their classes with.

The following five sections seek to analyse the specific strengths and weaknesses of the pre-packaged education and recreation kits utilized in Aceh⁷.

Efficiency

The efficiency of the education and recreation kits has been measured against the timeliness and coverage of their delivery and the extent and manner in which educators were informed of their use.

As stated on the UNICEF website, “The purpose of the kit (School in a Box) is to ensure the continuation of children’s education in the first 72 hours of an emergency”⁸. This statement would imply an expectation within the organization that emergency education kits be available in emergency affected sites within 72 hours of a crisis. In cross verifying this information with UNICEF’s Core Commitments for Children in Emergencies however, it would seem that the organization’s formal expectation is for education and recreational materials to be distributed within the first 6 to 8 weeks following an emergency. In deciding the ‘benchmark’ against which to measure the distribution of kits in Aceh, the latter was chosen- as it would seem unrealistic in a vast majority of situations to expect prepackaged education and recreation kits to be distributed within 72 hours of an emergency. This would be even less probable if taking into consideration the organizational recommendation that training on the kits be provided to those working with children prior to their distribution. Lastly, with an immediate priority for life saving materials following an emergency it would be unlikely that education or recreation materials would precede health or nutritional supplies. From the visits to schools over the course of this review, it would seem that a majority of temporary learning/play sites did receive School in a Box and Recreation Kits within two months of the disaster. This must be highlighted as a significant achievement in consideration of the huge logistical challenges involved in supplying and distributing materials in the tsunami affected areas. The first education and recreation kits to be distributed were the standard, imported kits; it would have been impossible to produce similar kits locally (and would have been far more expensive) as items only began to reappear on the local market as of 8 to 12 weeks after the disaster. According to one group of teachers interviewed, chalk for example only became available on the local market in Banda Aceh three months after the tsunami.

While education and recreation kits were rapidly deployed, the relevance of the distribution of these is more difficult to ascertain. The distribution plan itself seems to have been haphazard over the first three months- and it is difficult to note what kits were

⁷ Indicators for the review are built upon those developed by Eric Eversmann in his review of School Kits in Somalia.

⁸ Taken from www.unicef.org/supply/index_cpe_education.html

distributed where, as records were not kept accurately in the first phase. It must be recognized that the poor official data available at the district level (and therefore at the provincial level) resulted in difficulty calculating the number of kits needed and where these should be brought. In the early response period, kits were simply distributed to areas where a potential need was seen by staff, in conjunction with the Education Department personnel who would indicate where a school had been prior. Various informants readily admitted that schools and communities located closer to the main roads received more education and recreation materials than others. This was corroborated by a visit to SD Jengalla School, where an oversupply of teaching and learning materials from various organizations (and private companies) had resulted in a stockpiling of the School in a Box and Recreation Kits distributed by UNICEF. In the initial phase it would also seem that Save the Children were also distributing an emergency education kit- containing more teaching materials than those in the SIB. In recognizing that coordination was essential for more efficient programming, UNICEF pushed for, and subsequently chaired, an education coordination group in order to avoid duplication of efforts- including the distribution of educational materials. Both for monitoring purposes and for increasing the ownership of the materials distributed, it would have been useful to have teachers/facilitators sign upon receipt of the kits. While this did seem to happen in some schools, it was by no means the case in all, and added to the difficulty of knowing which schools had received what materials.

In order to maximize the content of the kits and to ensure they are used to their full potential, information dissemination to facilitators/educators on their use is crucial- and ideally should come prior to the distribution of kits⁹. Such sessions are important in presenting each of the individual items within the kit to teachers, and ensuring they understand how these can be used in a variety of ways. This is particularly true when using the kits from Copenhagen, as they contain materials which are often unfamiliar to teachers. Teachers receiving the kits in Aceh were in particular need of brief training sessions on the use of the kits as most had never been trained as teachers¹⁰. “Distribution of supplies to children under the supervision of untrained teachers in emergency situations will result in wastage of the equipment and lack of effective education outcomes” (Triplehorn and Sinclair, 2001). Unfortunately, it would seem that no training was given to the teachers on the purpose and use of the School in a Box kits and only a small minority were informed of the content of these upon reception of the kits. In only one of the schools visited, had a teacher been told of the contents within the kits and been given by a brief explanation of how to use the games in the recreation kit. It is not surprising therefore, that in each of the schools visited during the course of the review there was at least one item which had been purposefully set aside by teachers who did not understand their pedagogical purpose, nor the manner in which to use them. The most common items misunderstood by teachers receiving the imported SIB were the set of wooden blocks, the blackboard paint and the erasable markers- which they had not been told could be used to write on the posters, therefore resulting in a wasted teaching opportunity. In the recreation kits, the Frisbee was commonly put aside by teachers, as was the powdered chalk. A cross section of respondents agreed that the recreation kits

⁹ Core Commitments for Children in Emergencies, UNICEF

¹⁰ As reported by a staff member from the Provincial Education Department

were underutilized by teachers, and the Education Authorities themselves admitted that they were unaware of how to use some of the materials they had delivered to communities after the emergency. The improved efficiency of the kits when supplemented by training is demonstrated in the higher and more creative use of the recreation kits by the Children Centre staff¹¹, who were provided with the training needed to feel confident in introducing the games to the children. Similarly the facilitators of the Children Centres seemed to be far more aware of the potential and purpose of the recreation kit in addressing trauma amongst children¹².

Ongoing monitoring of the usage of the materials within kits ensures that these are efficiently used- and ideally leads to providing classroom level assistance to teachers/facilitators on the materials they have been provided with. Whilst there was informal monitoring of the kits over the first three months by UNICEF staff, this focused primarily on inspecting whether schools had received the kits and whether these were sufficient in quantity. This effort is commendable, particularly in a situation as chaotic as that following the tsunami, however there is little formally written from these monitoring activities on how the materials were being used and nothing noted in relation to a potential need for the replenishment of items. It would have been beneficial to conduct a review of the education and recreational materials after 3 to 4 months of their having been distributed in order to determine any new material needs in the temporary schools or Children Centres, and to formally decide whether or not to replenish the items. As has happened in other post-emergency settings, certain items from the kits were consumed far more rapidly than others- and there would have been a strong benefit to distributing additional exercise books for example three months after the initial distribution of kits. While engaging in item- level replenishment (rather than of an entire kit) is more demanding logistically, this would have been an efficient manner of avoiding an oversupplying of certain items (ie the 'hardware' teaching items). In one temporary school visited, there were far too few writing materials for all the students (with one exercise book shared among three children) and yet there were thirteen blackboard rulers in only 2 classrooms.

A key 'selling point' of pre-packaged education/recreational materials is that they form a cohesive pack, and that individual items support each other to provide an effective educational opportunity for children. Due to a chronic undersupply of education and recreation kits (discussed further below), teachers found themselves disassembling the kits in order to redistribute the items among children in various classes. By doing so, the added value of a pre-packaged approach was diminished and the added cost entailed in pre-packaging such materials outweighed the benefits. In addition to the cohesiveness of items within the kits themselves, there is also a connectedness between the emergency educational and recreation kits and a strong rationale to distribute these at the same time alongside temporary school tents and/or blackboards. Due to a delay in receiving blackboards and rulers, the School in a Box kits were distributed without these accompanying materials. The items in the kits would have been used more efficiently had

¹¹ As reported by UNICEF staff

¹² In order to redress this situation, UNICEF will continue to roll-out over 2006 a training programme initiated in late 2005 to teachers on psycho-social support and play.

the blackboard and ruler been distributed at the same time, especially as many teachers did not realize the purpose of the blackboard paint in the kit and did without any boards.

At its most efficient, the School in a Box is designed to be used with up to eighty children *in two separate shifts* of approximately 40 children. If the ratio tilts towards too many more children, classes are less effective and if too few children are covered by the kit, the efficiency thereby decreases (as cost per child increases). In the case of the emergency intervention in Aceh, there were far too few education and recreation kits available and education personnel, students and Ministry of Education counterparts all noted this as a significant weakness of UNICEF's intervention. It would seem that the number of School in a Box kits ordered and subsequently distributed in Aceh were based on a ratio of one kit to eighty students. Whilst this ratio would have been correct in a double shift system, none of the temporary schools were offering both morning and afternoon class sessions- and many of the materials designed to be shared were therefore insufficient in classes of up to 80 students. One reason explaining the higher ratio of children per kit calculated by the Indonesia programme is the lack of clarity provided centrally on this ratio with a need to clearly specify in all UNICEF documentation that programmes must carefully consider whether a single or double shift system will be implemented. Extremely large class sizes seem to have been the norm as teachers/facilitators had not received an indication that the kits aimed to promote a maximum teacher/student ratio of 1/40. Similarly, while it is recommended that the recreation kit be used by approximately 80 to 100 children- it seems to have been calculated at a ratio of one box for 200 children for most Children Centres and schools. The impact of this miscalculation has had repercussions on the efficiency of the kit, as items were redistributed among schools by teachers, and items were damaged or depleted far more rapidly than intended.

A perceived expectation among UN agencies, NGO's and the government of UNICEF's role in providing educational materials for all children may partly explain the insufficient availability of education and recreation materials. While UNICEF was clearly expecting to coordinate with other organizations in the distribution of teaching and learning materials, many organisations shied away from this area believing that all necessary materials had already been provided to children. Furthermore, in accordance with procedural policy, UNICEF based its provision of materials on requests from the Ministry of Education who substantially underestimated the emergency education and recreation materials needed for the students in the tsunami affected areas.

One factor which hindered the efficient distribution of the materials was the solidity and quality of the boxes within which the items were transported and stored. Where School in a Box kits came packed in cardboard boxes, items became separated as the cardboard was unable to withstand transport and storage conditions. Teachers in all schools receiving the Indonesian School in a Box complained of the poor quality of the metal box itself, as these began rusting extremely quickly and therefore damaged some of the equipment stored inside. Furthermore, the significant weight and size of the Indonesian School in a Box was a hindrance to its efficient distribution as it weighed approximately 70 kilos, in comparison to the imported SIB kit weighing just over 50 kilos.

Effectiveness

This section seeks to measure the degree to which the objectives of the education and recreation kits were met and therefore seeks to understand how the School in a Box allowed for the continuation of children's education; the extent to which these kits promoted children's learning and lastly, how the Recreation Kits were able to contribute to alleviating trauma amongst children¹³.

The distribution of School in a Box kits clearly resulted in children returning to education more rapidly than had there been no such materials provided, and it is estimated that over 500,000 children¹⁴ returned to structured learning opportunities as a result of the kits. This finding is in line with that of other post-emergency situations where the provision of school materials has resulted in increased school attendance (Triplehorn and Sinclair, 2001). This success is partly due to the strength of partner organizations chosen to collaborate with UNICEF in education programming, as Non Governmental Organisations (NGO) provided a wide coverage of the kits across affected communities. In looking beyond the sheer number of children who benefited from the education and recreation kits, it is also important to ascertain if all children had equal opportunities to access these materials and the degree to which materials promoted the inclusion of all children in a class. As available data from the temporary schools and Children Centres has not been disaggregated by gender, it is difficult to verify the extent to which boys and girls equally benefited from the pre-packaged materials. Observations of UNICEF and NGO staff however, would indicate that there was no significant gender disparity in the use of the education and recreation kits. The games included in the recreation kit were equally acceptable to boys and girls- with girls preferring the badminton, bowling pins and small tennis balls rather than the football or Frisbee. From interviews with teachers and Child Centre facilitators however, it would seem that very few if any children with disabilities participated in the activities offered with the kits, partly due to parental fears for their children's safety but also as the inclusion of children with disabilities in schools has not been actively promoted within the formal education system. The items within the kits, particularly the recreation kit, were not sufficiently reflective of the needs of children with disabilities as most games require significant mobility (soccer, badminton, bowling). While teachers who have never included children with disabilities in their classrooms may struggle in accepting and devising ways to adapt the materials, it is important that UNICEF emphasize the need for this in the first phase following an emergency. As a part of their monitoring efforts, staff should be consciously seeking to understand what groups of children may be excluded from temporary schools/centres and what support is needed to rectify this.

An important tool available for teachers and programme staff to measure fluctuations in attendance (and thereby the extent to which the kits increase access to learning opportunities) is the attendance register. It is concerning to note that the imported School in a Box kits did not have attendance registers included, despite their being listed as a content item on the order form. This item would have played an important role in

¹³ These objectives are based on those provided in UNICEF Guidelines

¹⁴ S. Aoki, Education Response in Tsunami/Earthquake: Aceh and Nias (Draft)

assisting teachers to manage their classes and upon which calculations of needed supplies could have been made. While it is recognized by UNICEF's Supply Unit that slight variations to the kits might occur due to availability at the time of order, it is essential that country programmes be made aware of these so that they can find other ways of providing these items. Similarly, in three of the schools visited for this review, the poster set had not been included in the imported School in a Box kits, thereby decreasing the effectiveness of literacy and numeracy teaching opportunities. Again, it is not clear how these items went missing from the School in a Box kits but it does point to the equal risk of loss of materials from pre-packaged kits as from 'loose' material distribution. A potential mechanism to reduce the loss of materials from the emergency kits would be to tie these with sealed plastic ribbon, similar to those used for luggage at airports for a 'tamper free' kit.

The extent to which the recreation kits used in schools were able to address children's trauma in the first three months following the tsunami was hindered by a reticence among teachers to use the materials, partly due to the limited safe space around many of the temporary learning centres but equally due to limited interest in using sport materials with their students. Children however, credited much of their happiness in returning to school to the games provided which allowed them to engage in group sport activities.



Proponents of pre-packaged education kits have put forward the argument that kits can prove successful in improving teaching practices by using the period of change to introduce more participatory, child centred teaching approaches. Classroom observation during this review however, showed teachers struggling to manage their classes and apply discipline techniques with a predominance of rote learning. It is important to be realistic about the extent to which training to introduce new teaching methodologies is possible in the first phase following an emergency. Teachers often fall back on more traditional teaching styles as a form of security in a time of great flux and including items

within the kits that require a different teaching approach must be carefully considered prior to their introduction.

The presence of five different pre-packaged education and recreation kits, each with varying strengths and weaknesses, did have the advantage of making for a more relevant emergency response. However the varying content of these made for some confusion, as it was far more difficult to assess what individual items schools needed after the first distribution of pre-packaged materials. This situation was further confused by the merging of some kits, items from the recreation kit for example being added to a School in a Box kit. For this reason, it would seem more efficient to minimize the number of types of kits distributed aiming to serve the same purpose.

Impact

An unintended outcome (and to a certain degree inevitable) of the use of prepackaged kits has been a focus among teachers on the kits themselves, rather than the individual materials within these. A result of this did seem to be a lack of analysis by teachers on what materials would most be useful to their teaching and learning for their students- as they focused efforts on obtaining kits rather than thinking through what was the best way of using the items most effectively, to the benefit of the greatest number of children. This may also partly explain some initial signs of dependency, as education personnel and parents emphasized a need for the continued distribution of basic learning materials through kits.

Whilst the pre-packaged School in a Box kit seems to have had little impact on teaching practices per say, an unintended outcome of its use has been the creative restructuring of classrooms by some teachers seeking to maximize materials amongst students. As such, it was noted that in two classrooms visited desks had been moved from traditional rows into tables around which children would sit facing one another. Although teachers had realized the advantages of structuring their classes in this way, they were eager to return to the more traditional seating arrangements once they moved into their permanent school.

The scale of the impact of the pre-packaged education and recreation materials was strengthened through the distribution of these to a wider number of schools than those directly impacted by the tsunami. In doing so, UNCIEF rightly recognized that the tsunami had impacted in many different ways on children's education and not just in the physical destruction of buildings and supplies. The impact of the recreation or School in a Box kit on psychosocial outcomes is extremely important yet difficult to measure, and could be considered through the use of a tool such as the 'resiliency scale' in a more in-depth assessment.

One interesting outcome of the recreation kit was the creation of a localized rattan version of the hula hoop which children were particularly fond of- and which can now be seen hanging in shops across Banda Aceh!

Relevance

To determine the extent to which the School in Box and Recreation kits were in keeping with local needs and priorities in Aceh, the relevance and popularity of the individual items within the kits are reviewed below.

The limited space within kits is an important factor for consideration in debating which items should be prioritized, however this should not determine what materials should or should not be distributed to communities immediately following an emergency. **Rather than asking what can fit into a pre-packaged kit, one should really ask what are the items needed at what times following a crisis and how best can these reach communities?**

In order to ensure the maximum efficiency of pre-packaged education and recreation materials, it is essential that the individual items be of relevance to the local culture and be considered appropriate by teachers, children and parents. Systematically, students interviewed for this review rated slates as the least practical item included in the School in a Box kits. The students felt very strongly that not being able to keep a record of class notes even so shortly after a disaster, meant that they were falling further behind in their education. There was a sense that after having lost so much, children sought permanence to the greatest extent possible including in their 'temporary' studies. Teachers also admitted to not using the slates, however explained this by citing the lack of water with which to wipe them clear as a key hindrance as well as their ignorance on how to use them. From the teachers' perspective, the least useful item in the School in a Box kit was the collection of wooden blocks which none of the teachers interviewed had used in their classes. For a vast majority of teachers who had never applied active learning or participatory approaches, the wooden blocks were not an item they were able to bring into their teaching practices. Whilst Education Kit Guidelines in Bahasa Indonesia would have aided the teachers in better understanding how to use the items, it is doubtful to what extent they would have felt confident to draw upon them in their teaching¹⁵. Conversely, the item absent from the imported Education Kit which teachers felt would have been most useful to include, was a set of textbooks which could then be used to structure lessons. Without these teachers struggled to identify teaching topics or create lesson plans, particularly as many of them were untrained.

The student backpacks included in the Indonesian School in a Box were extremely popular with children and teachers alike. However, to the extent that they took up half of the available space in the kit and that other key learning materials were insufficient in number, it would have been more relevant to provide the backpacks in a second stage of distribution as opposed to in the immediate post-emergency education kit. In protecting their few learning materials, the UNICEF plastic bags were considered extremely useful by students in the first month following the tsunami, despite lasting only 4 to 6 weeks. It would be important to ensure that these bags are clearly marked as being for children to

¹⁵ Bahasa Indonesia Guidelines for the School in a Box have been developed, but were finalized too late to include in the distribution in Aceh.

carry their learning materials in and as such, it may be useful to redesign them with relevant images to show this.

In contrast to the Indonesian School in a Box, which teachers and students commended for including local materials (such as the atlas, Bahasa Indonesian posters and local water jug), the Indonesian Recreation Kit overlooked an opportunity to incorporate local play items for children. As recommended by UNICEF's Supply Division, standard kits ordered from Copenhagen should be supplemented with local items of cultural relevance.

This is not that realistic however, as kits often arrive directly at post-emergency sites without passing through a UNICEF office- and opening these to add local items could also increase chances of items disappearing. A further criticism of both types of Recreation Kits by teachers, was their limited potential use due to their requirement for considerable safe, outdoor space- not possible in many of the areas where temporary learning centres were established. A lesson to be derived from the development of local School in a Box and Recreation Kits in Indonesia, is that the quality of locally procured items is paramount to the kit's effectiveness. The low quality of sports materials included in the Indonesian Recreation kit meant that many of the materials were rapidly damaged, with little resistance to the demanding requirements of large groups of children all seeking opportunities to play sports and games¹⁶. In preparation for future emergency situations, it would be useful to put in place stronger quality control mechanisms to ensure the robustness of materials provided. While the ping pong set provided in the Recreation Kit was acceptable to children, the lack of any suitable tables on which to play meant that in all the centres and temporary schools visited the ping pong materials had been put aside. Inevitably, the construction of a suitable table was not seen as a priority by schools who therefore judged this item as being irrelevant to their immediate needs.

Despite the weaknesses of certain items contained in the pre-packaged kits, the overall significance of the materials in supporting children to return to education and providing them with an opportunity for play remained high in the opinion of education personnel and project staff. As per Eversmann's finding of the use of kits in Somalia, 'the number of items considered to be irrelevant did not reach a threshold where the entire kit was judged to be of little value'¹⁷.

It would have been beneficial to consider how messages pertaining to health and safety and coping with emotional distress could have been incorporated within the School in a Box kits. The addition of local stories encouraging the need for care in choosing drinking water for example would have been appropriate, given the concern with water borne diseases in the first few months following the tsunami.

Several international organizations have begun to argue for the inclusion within kits of items which promote the greater participation of children in learning and recreation activities following emergency- materials such as clothing or sanitary items for example

¹⁶ As an example- the badminton equipment in the local Recreation Kit was criticized for lasting only up to a month in all the Children Centres and schools visited.

¹⁷ Eversmann, 2000 pg 10

(Nicolai, 2003). There is no doubt that these are materials which are important to children and young people (although the comfort levels of young girls in having teachers provide them with sanitary materials needs to be carefully considered) in returning to temporary schooling, however the additional space these would take within kits would virtually eliminate any other items being included. As such, it is recommended that where deemed necessary children's clothes be distributed separately from the School in a Box kits and that programmatically, this should not be an additional task for Education staff to coordinate.

In a typical post-emergency setting, a temporary learning/recreation space will seek to meet the needs of a wide age range of children. This has become particularly important with UNICEF's recognition of developing Child Friendly Spaces following a crisis, which provide support and services to pregnant mothers and newborns all the way through to adolescents. The content of the School in a Box should rightly remain focused on school aged children (therefore 6 to 16), with items for younger children distributed through the Early Childhood Development kits for example. However, even within the school age range there are considerable differences in the items to be used by lower primary as opposed to higher secondary students. It was felt by students and teachers who participated in the review, that there was a disproportionate amount of materials in both the School in a Box and the Recreation Kit for older classes/ages.



In seeking to redress this balance, it might be useful to draw upon the UNICEF Supply Division who have identified a number of regional sources of imaginative play materials for young children in post-emergency settings¹⁸.

Sustainability

By their very nature, pre-packaged education and recreation kits are not developed for longer term sustainability ; they respond to a punctual need to provide materials for the first few months following a crisis and ideally, should not be used beyond the initial post-emergency phase. This is partly in order to avoid a dependency arising among teachers, children and government counterparts on these kits. Equally, this is in recognition of the

¹⁸ In Thailand alone, there are several companies who currently produce high quality games for younger children who could be drawn upon for pre-packaged emergency supplies.

decreased cost effectiveness of using kits over a longer time period rather than individual items in line with emerging longer term needs. A distinction of sorts in distribution priorities was made by the Indonesia programme, by having three 'sets' of education material distribution: the School in a Box kits / Recreation kits ; the individual student packs (as part of the Back to School Campaign) and the primary textbook distribution. However the degree to which the materials were clearly chosen in line with the different phases they corresponded to is unclear. In Aceh, the distribution of School in a Box and Recreation kits to temporary schools continued up to a year following the tsunami. Whilst temporary schools were definitely in need of materials in the latter half of 2005 (and new schools continue to need teaching and learning materials), it may have been more strategic to seek to make a distinction in the materials they received (and the packaging it came in) to emphasize a transition beyond the immediate post-emergency phase. Where schools continue to have no storage space there is an argument for continuing with the distribution of pre-packaged kits, however it would be unlikely that this would be the case for most new schools who would receive essential furniture prior to opening. Underlying this is a need for programmes to set deadlines where possible, by which they plan to end the distribution of pre-packaged materials and shift to more sustainable support. These provisional dates for the differing phases are important to communicate with government counterparts who in the case of Aceh, believed that School in a Box and Recreation kits would continue to be provided over the course of 2006.

Recommendations

- ❖ UNICEF EAPRO develop a virtual prepositioning system for emergency education and recreation kits regionally

UNICEF EAPRO would be well placed to *establish a regional prepositioning system* for emergency education and recreation materials, developing a 'virtual' supply of items based in Bangkok. This would assist in ensuring the relevance and quality as well as rapid deployment of education and recreation materials to countries in the region. UNICEF's Supply Section in Copenhagen have stated their willingness to support programmes in establishing local pre-packaged kits, and their assistance should be sought to work with regional and country-level education and supply teams to review and develop systems for emergency material procurement and distribution. In prioritizing the items to be included in pre-packaged education kits, it is important to focus on the supplies which are most crucial to the education process, and to avoid seeking to provide extensive teaching aids which often go unused by teachers (Eversmann, 2000). Further, the individual items recommended below would need to be piloted in several countries prior to their being included in a list of available supplies for pre-packaged education and recreation kits. It is equally important to consider the time frame in which materials will be needed for the essential learning and play by children. It is therefore recommended that *education material distribution be clearly divided into two stages*- pre-packaged kits for immediate deployment in the first 6 to 8 weeks following an emergency, and a second structured distribution of materials (not necessarily through kits) as of 4/6 months after the emergency. Such a phased approach is

not necessarily as relevant to the Recreation Kit, as temporary children’s centres will often disband within 6 months of a natural disaster and these materials are then better provided through Early Childhood Centres, Youth Clubs or Schools.

With Regards to Teaching/Learning Materials

In a first phase pre-packaged education kit, priority items to include¹⁹ are:

For Students

Item	Specifications
Slates ²⁰	For use with younger classes, ensuring availability also of individual sponges and water.
Slate pencils	
Pencils	Of varying thicknesses for younger/older children
Erasers	
Exercise Books ²¹	With waterproof plastic cover and backing for protection. Lined books preferable for younger children and squared ones for older classes.
Rulers	Rigid, plastic 30 cm.
Drawing Books	
Plastic Carry Bags	With design to indicate their use and sufficiently sized to carry exercise/drawing books
Crayons	Of varying thicknesses for younger/older children
Pencil Sharpener	Individual per student, corresponding to HB2 size as most common pencil in region.
Black pens	For use by older grades primarily.

For Teachers

Item	Specifications
Storage box	Anti-rust and tamper proof (not cardboard)
Textbooks	3 core subjects for 4 grades
Blackboard ruler	Plastic, 1 meter
Chalk	White + Coloured
Book bag	Waterproof, designed to indicate use
Pens	Various colours
Pencil	HB2
Whiteboard	

¹⁹ These take into consideration the results of the ranking exercises conducted with 45 students and 35 teachers/CC facilitators during this review

²⁰ These are not considered appropriate for use in all countries (such as Indonesia), however remain of value for younger children particularly in countries with a French colonial history.

²¹ Students and teachers criticized the UNICEF exercise books as having covers which are too fragile to withstand the conditions of the temporary learning sites- humidity, dirt etc

markers	
Pencil eraser	
Poster Set	Numeracy/Literacy/Atlas ++: plasticized, diff. grade levels
Blackboard shapes	Triangle, semi-circle, compass
Teaching clock	
Flashcards	Ie pictures to develop alphabet + vocabulary
Student Scissors	
Teaching Scissors	
Attendance Register	Designed with space for notes relating to specific issues on indiv students
Adhesive tape	Of sufficient strength to hold paper together as well as to tent siding
Blackboard paint + brush	This would be less of a priority where distribution includes portable blackboards

Procuring materials that are made of high quality, durable plastic (similar to those in the imported UNICEF kit) rather than in wood is recommended, due to considerations of weight and hygiene.

Whilst the second distribution will depend on the results of a rapid educational needs assessment (ideally conducted after 4/5 months), the following may be required in a second stage distribution: student bags/backpacks, student pencil cases, classroom-sized pencil sharpeners, notebooks of varied sizes, counting beads/blocks, coloured manila paper etc.

With Regards to Recreation/Play Materials

This pre-packaged kit would contain a mixture of play and sports materials, to be used both indoors and outdoors. Additionally, the materials should seek to provide a balance between cooperative group games, more traditional sports and individual play.

The development of the Recreation Kit should be guided by local games children play- which further emphasizes the need for the pre-designing of these as a preparedness measure.



A facilitators' guidebook on activities and games for children and

young people²², would be beneficial and a regional adaptation would add value to the recreation kit.

Item	Specification
Puzzles	Of various pieces/sizes: 20/25 for younger grades up to 50 for older grades
Crayons	Mixture of wax and wooden
Adult scissors	
Board Markers	
Small balls	small 'takroe' balls made of bamboo might be appropriate
Marbles	
Story books	local fables; incorporating relevant health and peace promoting messages
Nontoxic glue	
Nontoxic paint	
Badminton set	
Volleyball set	
Football set	
Skipping rope	
Chess/checkers	Local variations such as 'conglak' in Indonesia
Paint brushes	Individual for students- different thicknesses
Colouring paper	Could be in the form of books with removeable pages
Bowling pin set	
Musical instruments	
Hand puppets	
Kite Making materials	Twine, pre-cut fabric squares, lightweight sticks.
Building Blocks	Lightweight wooden with plasticized cover
Card games	As culturally appropriate- such as matching pictures etc

With Regards to the First Aid/Hygiene materials

- 1) Various sized plasters
- 2) Disinfectant
- 3) Gauze
- 4) Soap
- 5) Plastic water jug

❖ Develop a Guidance Note for UNICEF country teams in the selection of emergency education and recreation items to include in kits

²² This could be an adaptation of the Animator's Recreation/Games Guidebook (Education par le Jeu: Guide de l'Animateur, 1999) supported by UNICEF in Rwanda.

Based on the tentative list of items recommended above, it may be useful for UNICEF's Regional Office to provide country offices with a '**guidance note**' on the items to consider including in pre-packaged emergency education and recreational kits which would facilitate local procurement. The Indonesia UNICEF country office could play an important role in leading on this initiative, building on their experience in developing a local kit and its use in various parts of the country.

- ❖ Ensure that prepackaged education and recreation materials are delivered simultaneously to maximize the efficiency of interventions

In the first 6 to 8 weeks following an emergency, it is recommended that **temporary learning/play sites should simultaneously receive Education Kits, blackboards, Recreation Kits and a School First Aid/Hygiene kit**²³.

- ❖ Regional template documents for facilitators are drafted to include in pre-packaged education and recreation kits

Essential for any Education or Recreation kit is a **brief set of 'teacher friendly' Kit Guidelines**, explaining the purpose and content of the kit as well as the function of each individual item and recommendations on how to care for these. Such a brochure could provide both written and visual documentation on suggested use of the materials and ideally, would be produced beforehand in local languages by UNICEF country programmes. In order to better evaluate and learn from the use of various teaching, learning and recreational materials following an emergency, it may also be useful to include a simple **evaluation form** within the pre-packaged kits, which teachers would return to UNICEF programme staff following the first phase of an emergency.

- ❖ A standardized information session outline be produced regionally for adaptation by country programmes

Lastly and as noted earlier in the report, the distribution of pre-packaged kits should ideally be preceded by short demonstration sessions for educators who will be teaching or facilitating recreational activities. As such sessions could easily need to be given by UNICEF logistical staff or Ministry of Education personnel, the UNICEF Regional Office could support this through the drafting of a **training session template** –which would be adapted by the national country programmes. The monitoring of the kits as well as the replenishment of these would also be made easier through an initial information session, as responsibility would more clearly lie with the individual teacher who would sign upon receipt of the kits.

²³ Based on the assumption that there would be inadequate space within the Education Kit to include a set of first aid materials and hygiene items.

ANNEX A

	Monday 6/3	Tuesday 7/3	Wednesday 8/3	Thursday 9/3	Friday 10/3
am	School visit: Min Teladan (Banda Aceh)	School visit: SDN Lambada Kleng (Aceh Besar)	School visit: SD Jengalla Lhoknga (Aceh Besar)	School visit: Min Peukan Bada (Aceh Besar)	School visit: SDN 24, 67 Lampineung (Banda Aceh)
pm	<p>12.00 Ms Sayo Aoki (Education Head, UNICEF)</p> <p>2.00 Mr. Asyraf (Education, Supply and Logistics, UNICEF)</p> <p>3.00 Mr. Ross Everson (Supply & Logistics Officer, UNICEF, Mr. Munsyi, Supply and Logistics Assistant, UNICEF)</p> <p>4.00 Mr. Aziz (Child Protection, Psychosocial, UNICEF), Mr. Champli (Child Protection, Psychosocial, UNICEF)</p>	<p>Children Centre visit: Keuneurum CC (Aceh Besar)</p> <p>5.00 Phone hook up (Mr. Erik Bentzen, Education Section Chief, UNICEF Jakarta)</p>	Children Centre visit: Lhoknga CC (Banda Aceh)	Children Centre visit: Matie CC (Banda Aceh)	<p>1.00 NRC-Cardi</p> <p>2.15 Provincial Education Department</p> <p>3.30 MORA</p> <p>4.45 Save the Children</p>

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