



ភាពជាដៃគូរបស់វិទ្យាសាលាសម្រាប់ក្រុមគ្រួសារ  
NGO EDUCATION PARTNERSHIP

Reaching Vulnerable Children:

Evaluation Home-Based Early Childhood Education program (HBE) in Cambodia



## Foreword

Reaching vulnerable children is the aim of a large number of programs and projects around the world. People and organizations who have been involved in such programs deserve great appreciation for their work, as there is no more noble cause than helping children in need. Therefore, NEP would like to thank all those people who have given NEP's research team the opportunity to participate in their work, even with this small contribution.

Even with the best of intention, programs need thoughtful design and good implementation in order to succeed. This study aims to assess the home-based early childhood education program in Cambodia by looking at its design, implementation and impact.

The main achievement of this study is the introduction of a new methodology for reaching vulnerable children. The *Child Vulnerability Assessment* method is a useful tool in designing and evaluating any project aimed vulnerable children.

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## **Abbreviations and Acronyms**

CCDP	Comprehensive Child Development Program
HCEEP	Handicapped Children's Early Education program
HECE	Home-based Early Childhood Education program
HIPPY	Home Instruction Program for Preschool Youngsters
HOPE	Hand-On Parent Empowerment
NGO	Non Government Organization
MoEYS	The Ministry of Education, Youth and Sport
PAT	Parents as Teachers
PEEP	Peers Early Education Partnership
SCI	Save the Children International

# Introduction

There is no question that the early childhood environment plays a crucial role in the physical and emotional development of children. Consequently, there have been a large number of initiatives that have been introduced around the world to address the issue of a healthy home environment, particularly for vulnerable and disadvantaged children. Following the devastation of the Khmer Rouge period, Cambodia has expressed great interest in dealing with the issues of early childhood education and has found help from a number of international organizations.

Everything in Cambodia is affected by the memories of the past, and by the subsequent lack of resources. The education sector is no exception. The primary task of the Cambodian Government is to ensure that future generations are able to build up their country.

Based on the Education Congress Report 2012/2013, there are 5,470 pre-schools (an increase of 345 schools from 2011/2012), out of which there are 2,813 public pre-schools (an increase of 238 public pre-schools from 2011/12 - there are 202 detached preschools, an increase of 5 schools). There are 348 private preschools (an increase of 117 schools), and there are 2,309 community preschools (a decrease of 10 schools). There are 8,090 pre-school classes (an increase of 701 classes), out of which there are 4,248 public pre-school classes (an increase of 242), whereas the total number of private pre-school classes is 1,423 (an increase of 509); and there are 2,419 community pre-schools (a decline of 50 classes).

There are 311,154 children aged 0-6 years receiving education, which is 16.80% of the age group, in which 49.98% are girls. The number of children aged 0-3 years receiving education is 30,963, which is 3.19% of the total number of children of this age group, in which 49.98% are girls. There are 122,965 children aged 3 and 4 years old receiving education, which is 21.23% of the total number of children of this age group, in which 50.58% are girls. There are 157,226 children aged 5 years old receiving education, which is 56.49% of the total number of children of this age group, in which 49.50% are girls (ESP target is 55%).

Home-based and house group based early childhood education is available in 176 municipalities, districts and khans. There are 51,435 parents or guardians, 2,124 core mothers and 76,207 children, 49.80% of whom are girls participating in these programs. There are 156,107 advanced pre-school children aged 5 years old finishing this level, of whom 50.63% are girls, an increase of 38,271 children.

This study is divided to the following chapters:

1. Home-Based Programs: international experiences
2. Home-Based Early Childhood Program in Cambodia
3. Children Vulnerability Assessment
4. Looking for the facts: survey findings
5. Evaluation of Home-based Education program
6. Final discussion and recommendations

## **Home-Based Programs: international experiences**

Sociologists and psychologists agree that there is great value in the analysis of dynamic interactions between the child and his/her physical and social environment (Ford & Lerner 1992; Mangnusson, 1995; Wachs, 1992,2000). There is consensus among professionals that the home environment is an important factor in young children's learning and development (Iltus, 2006). In the early childhood years, parents play a significant role in their child's development as they are responsible the child's environment and are the main people who interact with the child. Bronfenbrenner described these interactions as the "primary engines of development" (Bronfenbrenner, 1998). Increasing awareness of educators, politicians and parents of the issues involved in the early childhood experience, and its effects on human development have placed these issues high on the public agenda in many countries, and Governments, NGOs and international organizations have taken the initiative to implement a number of projects and programs that deal with them. The Home-Based Educational Program is one such program.

Sarah Miller from the Center for Effective Education, Queen's University Belfast, describes the aim of such programs as "to optimize children's developmental outcomes through educating, training and supporting parents in their own home to provide a more nurturing and stimulating environment for their child" (Miller, 2012). Christine Powell stated that home-based programs are "aimed at improving the child's development status by enhancing the child-rearing and child-care environment at home" and that although the target of the programs is the parent and the child, the "benefits would spread to other children within the family and possibly also to the neighbors." She also stated that it was also expected that "mothers would drive benefits for themselves, and many programs include activities to help mothers to develop more positive self-concept, feeling of competence and skills training" (Powell, 1999). Therefore, home-based programs target children as well as parents

in order to create favorable home environments for the child's physical, emotional and educational development (Miller, 2012).

There are two types of home-based program. Firstly, home-based early childhood intervention programs which aim to help parents in caring for children at risk, such as children with disabilities. Handicapped Children's Early Education program (HCEEP) in the USA is one such example of this type of program (White, 1992). Secondly, home-based education programs which aim to help children who are vulnerable due to factors of poverty and socio-economic disadvantage (Field, 2010) (Marmot, 2012). The Cambodian home-based education program has similar objective to this second type program.

The differences between these two types of programs are theoretical and practical. In theoretical terms they have different conceptual approaches; while the educational programs deal with the concept of vulnerability, the interventionist programs deal within the concept of threat and risk. In practical terms, researchers have argued that the interventionist programs target children already at risk and in positions of vulnerability, while the educational programs target children in order to prevent them becoming at risk. At the same time, the nature and motivation of parents involved in each program is different. Parents' involvements in interventionist programs is out of need and in attempt to reach assistance (White, 1992), whereas parents in educational programs are usually unaware of the needs and have less motivation to take part in the program's activities.

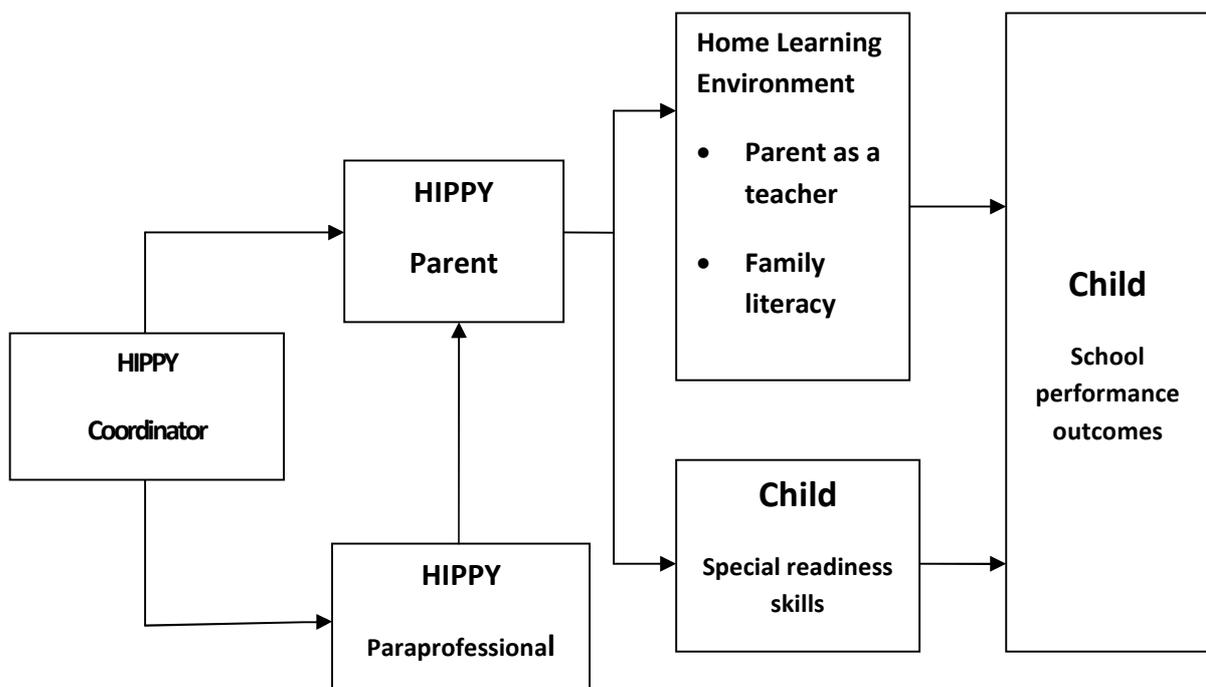
Home Instruction Program for Preschool Youngsters (HIPPY) is the most internationally recognized home-based education program in the world. HIPPY is a two year home-based early education program aims "to help parents with limited formal education to prepare their four and five year-old children for school" (Baker, 1999). The program was first developed in Israel in 1969. In 1984 it was brought to the United States of America (Baker, 1999) and to others countries such as the UK, New Zealand, Hong Kong and Canada. In most cases the programs have been implemented under different names; such as Peers Early Education partnership (PEEP), Hand-On Parent Empowerment (HOPE), the Comprehensive Child Development Program (CCDP), Parents as Teachers (PAT), and Positive Parenting program (Leung, 2011). The commonality of all these programs is that they not only share the same objectives but they also target similar types of beneficiaries. Most of the programs' beneficiaries are from poor families who have difficulties with their children's education and/or have difficulties in accessing public services because they are suffering some form of social exclusion (Leung, 2011).

Amy Baker explains the core elements of the American version of the HIPPY program as including a "bimonthly home visit by paraprofessional, supplemented in alternate weeks by group meetings with parents and paraprofessionals led by professional HIPPY program coordinators" (Baker, 1999). There are two reasons

why Avima Lombard, the founder of the program, chose home visiting as the program delivery method: firstly, in order to ensure parent participation; secondly, to individualize the content of the information provide to meet each parent’s individual needs; and thirdly, to establish a personal relation with the parents (Baker, 1999).

During these visits parents are provided with information to help them to address their child’s intellectual, social and emotional development needs, which includes instruction on how they can use every day parenting activities to advance their child’s development. In addition, parents receive professional advice on how to improve their parenting skills in order to ensure the most positive impact on their child’s behaviors (Miller, 2012). Therefore, home visits are not just about passing information to parents, but are also about encouraging parents to interact with their children and to offer to them the training and the tools they need to do so effectively (Westheimer, 1997). Figure 1 illustrates the conceptual framework of the HIPPY program in American.

Figure 1: Implied Conceptual framework of HIPPY Program



Source: (Baker, 1999)

To a large degree, the success of home-based education programs is dependent on parents’ involvement. Korfmacher (2008) has explained parents’ involvement as “the process of the parent connecting with and using the services of the program to the best of the parent’s and program’s ability”. He outlines three factors that influence parents’ involvement: parent characteristics; quality of the home visitor; and the program features (Korfmacher, 2008). Barker concluded from her

substantial experience working in a home-based program that parental involvement in home visit activities is more crucial than any other activity, such as group meetings. (Baker, 1999).

The other component of successful home-based educational programs is the professionals' role in the program's implementation. In the HIPPY program, the program coordinators and paraprofessional staff play a crucial role in its implementation. The program coordinator is responsible for the overall administration of the program at his or her site. Most coordinators have an early education background, with either teaching or social work experience. They are responsible for selecting participant parents and paraprofessionals for the program, training the paraprofessional and monitoring the implementation. Paraprofessionals are usually parents that have been selected by coordinators and it is their responsibility to conduct the home visits. In the case of the PAT program, the paraprofessionals are trained and certified educators (Wagner, 1999). Miriam Westheimer, who worked on the HIPPY program, described the work of paraprofessionals as follows: "Typically, paraprofessionals work up to 20 hours a week. Each is responsible for instructing a group of 10-12 parents on how to use HIPPY materials with their children and for monitoring each family's progress throughout the program year. The paraprofessionals meet weekly as a group with the local coordinator. The goals of the meetings are to role play the materials, to report and discuss the previous week's work and to share experiences and problems" (Westheimer, 1997).

Despite the sound theoretical basis for the home-based program (Baenett, 2012) the evaluation of its effectiveness is not conclusive. Some, such as Sheila Brooks, claim that research on home visiting programs has shown disappointing results and argues that "the overall studies indicate little long-term impact on families and children" (Brookes, 2006). Wagner and Clayton concluded in their study in two states in the USA that the evaluation to Parents as Teachers (PAT) program has indicated little effects on parents' knowledge and no effect on child development (Wagner, 1999).

On other hand, Baker conducted an assessment for the HIPPY program in New York and Arkansas with regard children's school performance. She found that the HIPPY program had a more significant impact than that of preschool. (Baker, 1998). In the UK, an assessment of children that had participated in the PEEP program concluded: "After two years of parental participation, children in the PEEP group were ahead of their matched (non-PEEP) peers in the following areas: Language and Literacy (Verbal Comprehension, Vocabulary and Concepts about print); Numeracy (Early Number Concepts) and Self-esteem (Cognitive and Physical Competence). Children in the PEEP group made gains in several areas between 4 and 5 years of age when compared to similar children whose parents had not participated in PEEP. The gains were: Language and Literacy (Verbal Comprehension, Vocabulary and knowledge of upper case letters) and Self-esteem (Cognitive and Physical Competence)" (Evangelou, 2003).

An article published by the Australian Institute of Family Studies found that the HIPPY program had a more significant effect on parenting style than on the child's educational development. The article stated "HIPPY has significant effect on reducing the level of hostile parenting" (Baenett, 2012). A recent study found that the majority (84.8%) of those in the HIPPY program in the USA were "ready for school" and "analyses showed the HIPPY kindergartners had higher attendance rates, higher pre-kindergarten enrollment, and higher promotion rates to 1<sup>st</sup> grade compared to other kindergartens in the school district. HIPPY 3<sup>rd</sup> graders scored significantly higher on a state-mandated mathematics test than their matched peers. The results suggest that HIPPY had positive relationship with families and schools through improved parental involvement and student school outcomes" (Johnson, 2012).

The international experiences of home-based programs have demonstrated that programs have varying degrees of success. Most researchers however agree that home-based programs should not be disbanded because parents are in need of the services they provide (Gomby, 1999). It is also the case that many programs have had successes where they are most needed, such as with the mothers and children of ethnic minorities (Wagner, 1999) (Leung, 2010)<sup>1</sup>.

In summary, the international experiences of home-based education programs confirmed the rationale for home-based programs, and have demonstrated, with varying degrees of success, the benefits of such programs.

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<sup>1</sup> Wagner demonstrated the success of PAT program with Latino mothers in the USA and their children. Leung showed positive results in the implementation of the HOPE program in Hong Kong with new immigrants from mainland china. She found the families who participated in the program had improved learning motivation and a reduction in their children's problematic behavior.

## Home-Based Early Childhood Program in Cambodia

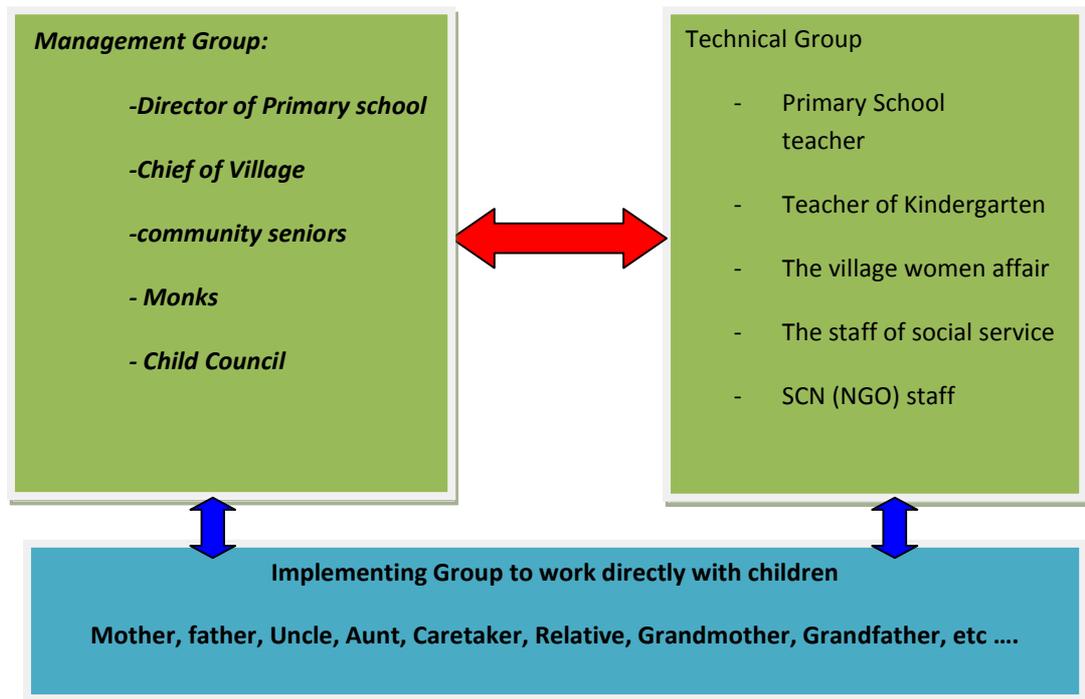
In 2000, The Ministry of Education, Youth and Sport (MoEYS) in Cambodia and Save the Children Norway (SCN) launched a home-based early childhood care and development pilot program in two villages in Kompong Chhnang province. Following the success of the pilot project, in 2004 MoEYS adopted the program nationally under the name Home-Based Early Childhood Education (HBE). Although the program was mentioned for the first time in the Education National Plan 2003 and has been supported by number of international organizations such as UNICEF, there appears to be a lack of documentation about its conception and development (Rao, 2007). As a result, it is hard to find a clear conceptual framework regarding the program's objectives and implementation.

The program is no different in its objectives than other home-based education programs around the world. Its main objective is to help parents to create a favorable environment for the development of their young children via an informal educational setting. MoEYS has emphasized the policy objective of the Early Childhood Education (ECE) program as being to expand early child education services (of all forms) for children aged from 0 to under 6 years, especially children from poor families, ethnic minorities and disabled children, and with priority given to community and home-based pre-schools (ESP 2009-2013). The rationale behind the Cambodian program was to create an early childhood program that would reach children who are not served by any other early childhood programs, such as state or community preschools.

There are 122,965 children aged 3 and 4 years receiving education, which is 21.23% of the total number of children of this age group, in which 50.58% are girls. There are 157,226 children aged 5 years old receiving education, which is 56.49% of the total number of children of this age group, in which 49.50% are girls (ESP target is 55%).

The home-based program therefore sought to provide affordable early childhood education by using the existing resources of the formal education system, as well as the local communities. Primary school teachers, kindergarten teachers, educators, women advocacy groups, religious teachers and NGO's staff would be all utilized to implement the program with the help of others Ministries, such as Women Ministry and Health Ministry. Figure 2 illustrated the mechanism of the program.

**Figure 2: Function Mechanism of the Cambodia Home-Based Early Childhood Education Program**

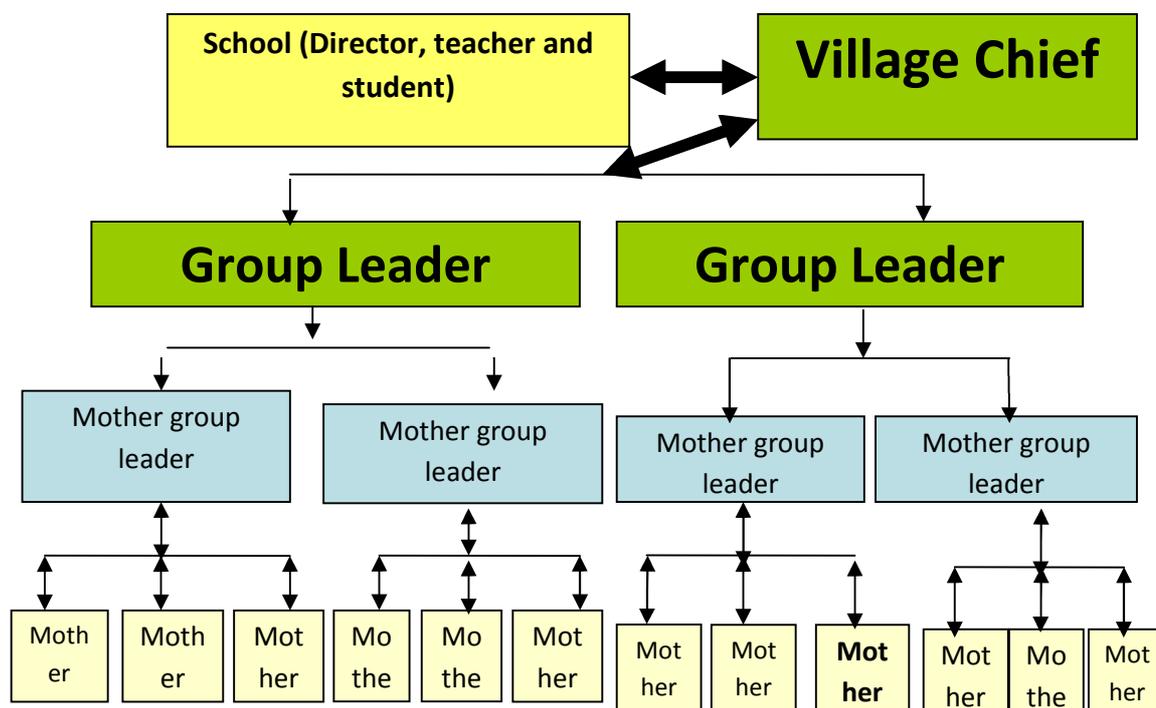


Source: SCI document

The concept of the program was to use the existing and available community structure in the implementation of the program. The proposal was for the village chief and a group of influential women in the community to lead the project with technical assistance from the formal education system, such as preschool, primary schools and the District Education Office.

According to 2012-2013 MoEYS statistics, home-based and house group based early childhood education was available in 176 municipalities, districts and khans. There are 51,435 parents or guardians, 2,124 core mothers and 76,207 children, 49.80% of whom are girls participating in these programs.

**Figure 3: Cambodian Home-Based Early Childhood Care Management**



Source: SCI document

**Table 1 -Home- Based Program Statistics 2012-2013**

Description	Academic Year		Increase (+)	Note
	2011 - 2012	2012- 2013		
Capital / Provinces	24	24	0	Capital / Provinces
Municipality/District/Khan	172	176	4	176/194
Commune / Sangkat	696	744	48	744/ 1633
Village	1743	1836	93	1836/ 14088
Core Mother	1809	2124	315	14.83%
No. of Mother Group	9932	10184	252	2.47%
NO. of Participants in the program	59743	63743	4000	6.28%
Total No. of Children	74817	76207	1390	1.82%
Female	36898	37952	1054	2.78%

Source: (MoEYS, 2013)

The main differences between the Cambodian home-based education program and others home-based education programs around the world are as follows:

- A. The home-based program in Cambodia has been devised as a way to respond to the needs of early childhood in rural and remote areas in the country because the government is not yet able to provide preschool services in those areas (Rao, 2007). Comparable international programs have not looked to the program as a substitute to preschool programs, but have seen the two as complementing each other.
- B. Home visits are at the core of the home-based programs in the international experiences, while the program setting is less significant in the Cambodian program.

# Children Vulnerability Assessment

The main objective of home-based early childhood education programs is to reach vulnerable children. For this reason the success of these programs can be measured by their impact on the lives of vulnerable children, both individually and collectively.

The issue of child vulnerability has been discussed most frequently within child protection and child welfare studies and has predominantly focused on child safety issues (Anthony, 2003, Lee, 2001). Vulnerability has been defined as exposure to the possibility of being harmed, either physically or emotionally. In this study we have expanded the definition of child vulnerability to include any situation that may prevent a child from fulfilling his/her potential to become a healthy, productive, educated, emotionally balanced and good human being. Unlike many child protection researchers who are using the term to refer to threat and risk (Daniel, 2010), vulnerability here also refers to possibility and probability.

Vulnerability is subject of physical, social and personal factors. It is well documented that poverty and social disadvantage have significant impact on a child's health and wellbeing (Siddiqi, 2007) (Lucas, 2008) (Matthews, 2010) and his/her emotional development (Kaplan, 2001) (Schoon, 2003) (Najman, 2004) (Sektan, 2010). Isolation is another significant variable in relation to child vulnerability. Isolation could be physical, such as living in remote areas out of reach of many basic services and resources. Isolation could also be as a result of social exclusions caused by social images, stigma, stereotyping or a discrimination against particular group of people (Bradley, 2001). Such variables of vulnerability cannot be separated from those of health and education, which could be seen as causes and consequences to other variables of children vulnerability. Therefore, bad health, malnutrition, disease and illiteracy are closely associated with poverty and exclusion.

Child vulnerability is a product of the combined impact of four variables; with each variable including a number of factors, as set out below:

## 1) Education Variable:

- Family school enrolment for children at school age
- Pre-school enrolment for child under 6 years old
- The viability of primary school in the village (including distance to the school)
- The education level of the child's mother
- Mother's ability to read and write

## 2) Poverty Variable:

- Family earning (less or above poverty line)
- Land ownership of farmers' families
- Mothers' marital status

### 3) Isolation Variable:

- The nearest medical clinic
- The nearest hospital
- The nearest urban center
- Belonging to a minority group
- The availability of electricity
- Living situation (separate house or with other)
- Mobile phone ownership
- NGO project implementation history in the area

### 4) Health Variable:

- Disability
- Chronic disease
- Drinking water source
- Child medical history (hospitalization, doctor visitation, sickness)

A Child Vulnerability Assessment is based on four hypothesizes. Firstly, parents everywhere in the world are doing their best to protect their children by creating a favorable environment for their child's development. Not only is it the legal and moral responsibility of parents to protect their children, but it is also a natural human instinct. However, barriers that may obstruct this are: the unavailability of needed services (due to living in a poor country or in a remote area); the expense associated with such services; ignorance of the best approaches to dealing with the issue (due to illiteracy, superstition or lack of knowledge); or other incapacity of taking care of their children themselves (for example drug addiction, alcoholism, sickness or mental or psychological illness).

The second hypothesis is that child vulnerability is a product of the accumulated effects of more than one factor. This means that one factor by itself does not necessarily equate to child vulnerability. For example, not all children from poor families are vulnerable, and not all children whose mother is unable to read and write are vulnerable (Daniel, 2010). Indeed, there are millions of mothers who have no educational qualifications but provide an excellent environment for their child's development. This study argues that categories such as risk, disadvantage, and vulnerability are descriptors of different positions with regard to child welfare and wellbeing. While disadvantage means an unfavorable position in comparison with other children, vulnerability is the possibility that a child is unable to achieve his/her potential, not only because of his/her disadvantaged position but also because there is a real threat to the child's ability to achieve his/her potential. On other hand, children at risk refer to those children who face a imminent and probable risk to their wellbeing.

The third hypothesis is that the weight of the Child Vulnerability Assessment's factors may vary according to a holistic understanding of the socio-economic environment of specific country. For example, some factors may carry more or less weight according to the living conditions of a society.

The fourth hypothesis is that child vulnerability has different levels and degrees of probability. There is no precise scientific measurement of vulnerability, thus the only way we can identify the level of vulnerability is to identify it in broad terms. This study therefore identifies four levels of vulnerability: 1) Non- Vulnerable, 2) Low vulnerability, 3) Medium vulnerability, and 4) High vulnerability.

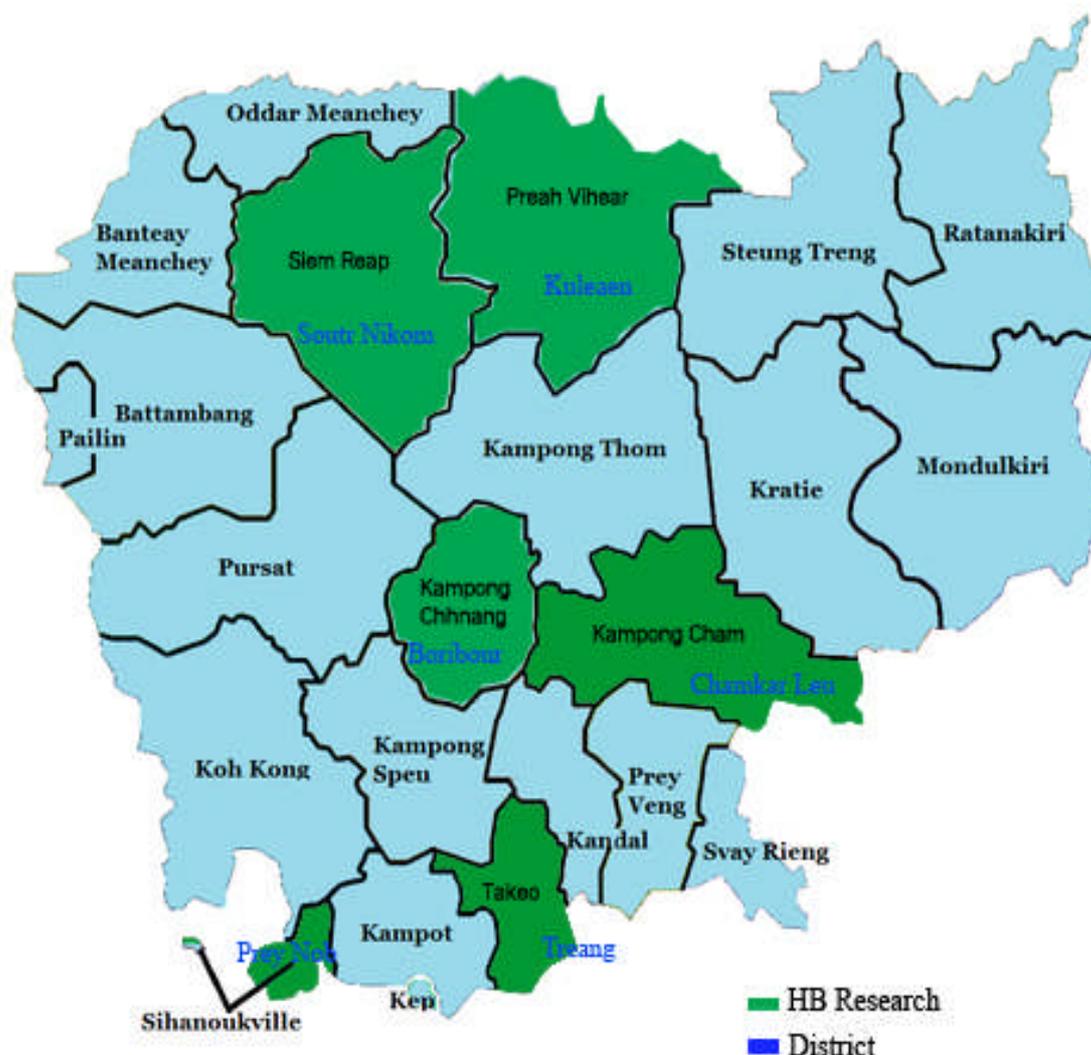
The Child Vulnerability Assessment is an important tool in identifying vulnerable children and analyzing the causes of their vulnerability. It should be used as part of any baseline survey of any development project. In addition, it provides a guideline to project designers by giving a clear picture of the beneficiaries of any project targeting children. The Child Vulnerability Assessment could therefore guide project designers to optimize their project to deal with the actual problems of the beneficiaries. It could also be used as an evaluation tool to assess the impact of any project on changing child vulnerability in project areas.

In order to produce quantitative data, a number of points are assigned to each factor in order to express its value. The level of vulnerability of each child will be determined by the total points calculated from the values of the factors related to the specific child. The assessment scoring should reflect the four assessmentshypothesize. In the following chapters, we will provide a practical example of how we can produce Child Vulnerability Assessments and use it as an effective tool for evaluation.

## Looking for the facts: survey findings

Any study is bound by the restraints of funds, time and accessibility. Within these limitations we identified villages where home-based programs were being implemented, ensuring that there was proper representation of remote villages. The key stakeholders were identified as follows: education district officers; village chiefs; technical advisers; leader mothers group; mothers and children. With the exception of children, the research and data collection teams interviewed all mentioned stakeholders individually, in focused groups or by phone. All data about the children involved was collected from the children's mothers. No child was interviewed or tested in the process or preparation of this research.

Map of the provinces covered by the research survey



### 18 villages in 6 provinces:

Table 2 contains data about 18 villages in 6 Cambodian provinces which were covered by the research survey. The villages had all had experiences of home-based programs, but were chosen at random. The data in table 2 was collected through our interviews with village chiefs. Four of the villages were classified as “Remote” and 12 as “Rural”.

The villages varied in population and distance to the nearest urban center. The smallest village’s population was 274 and the largest was 14,140. Ten of the villages had a population of less than 1000. The survey found that seven of the villages had electricity; although that does not assume that every home in the village had electricity. In all 18 villages there were primary schools that served the children within a distance of less than 5 kilometers.

### 18 village chiefs

Table 3 provides general information about the village chiefs. The survey found that in three villages the position of the village chief was occupied by a female. With the exception of the one female chief, all the chiefs’ were aged between 41 to 68 years old. Village chiefs were therefore predominately males over fifty years old. Table 2 shows that four village chiefs had no formal education although the majority of them were reasonably literate by Cambodian standards.

### Quantitative Data:

Village chiefs play an important role in supporting home-based education, although their capacity is limited. In three villages in which a home-based program was implemented the village chiefs were unaware of the program implementation at all. Two village chiefs believed that home-based program was no more than public meetings for all mothers to encourage them to exercise good parenting.

Most village chiefs could not distinguish between home-based program activities and other activities aimed at increasing school enrolment. When they were asked about activities to educate mothers, they mentioned activities mostly conducted by NGOs that were focused on educating women on health issues. Most of them suggested that establishing preschool centers in their villages was the best way to improve the program. Some of them mentioned the lack of public services, such as electricity, and the lack of preschool education materials as hindrances to the program’s implementation. Only seven village chiefs knew the numbers of the mothers that participated in the program.

**Table 2 -Villages general information\***

Province/ District/ Commune/ Village Name	Village code	Home Based Program	Village's discretion	KM to nearest Urban Center	Population	KM nearest medical clinic	KM nearest Hospital	Source of drinking Water	Electricity	Mobile Phone coverage	number of NGO project implemented
Kampong Cham : Chamkar Leu : Lvea (Leu) : Kbal Hong (Chas)	1	Yes	Remote	47	838	1	1	Well	Yes	Yes	1
Kampong Cham : Chamkar Leu : Lvea (Leu) : Kralaeng (Kaeut)	2	No	Remote	50	859	1	1	Well	Yes	Yes	4
Kampong Cham : Chamkar Leu : Lvea (Leu) : Lvea (Cheung)	3	Yes	Rural	1	836	1	1	Well	Yes	Yes	4
Kampong Chhnang : Baribour : Popel : Krang Khmaer	4	Yes	Rural	32	680	3	3	Well	No	Yes	3
Kampong Chhnang : Baribour : Popel : Kraol Chi	5	No	Rural	35	875	5	5	Well	No	No	2
Kampong Chhnang : Baribour : Popel : Sala Khum	6	Yes	Rural	1.5	5,081	1.5	1.5	Well	No	No	2
Preah Sihanouk : Prey Nob : Tuek L'ak : Chrolong	7	Yes	Remote	65	808	8	65	Well	No	Yes	4
Preah Sihanouk : Prey Nob : Tuek L'ak : Kampong Smach Touch	8	No	Rural	65	1,286	2	65	Well	No	No	3
Preah Sihanouk : Prey Nob : Tuek L'ak : Preaek Ph'av	9	Yes	Rural	75	570	10	75	Well	No	No	2
Preah Vihear : Kuleaen : Kuleaen Tboung : Kuleaen Tboung	10	Yes	Rural	40	2,700	80	80	Well	Yes	Yes	more than 4
Preah Vihear : Kuleaen : Phnum Tbaeng Pir : Baribour	11	No	Rural	80	850	80	80	Well	No	Yes	more than 4
Preah Vihear : Kuleaen : Thmei : Dan	12	Yes	Rural	48	274	48	48	Well	No	Yes	2
Siemreap : Soutr Nikom : Samraong : Krang Khcheay	13	Yes	Rural	7	991	7	15	Well	Yes	Yes	4
Siemreap : Soutr Nikom : Samraong : Samraong Tboung	14	Yes	Remote	7	1,640	7	15	Well	Yes	Yes	4
Siemreap : Soutr Nikom : Ta Yaek : Praval	15	No	Rural	15	2,758	15	15	Well	No	Yes	1
Takeo : Treang : Sambuor : Rovieng	16	No	Rural	50	14,140	4	50	Lake / pond	No	No	more than 4
Takeo : Treang : Sambuor : Tnaot Chum	17	Yes	Rural	54	1,648	11	54	Lake / pond	No	No	2
Takeo : Treang : Thlok : Chen	18	Yes	Rural	48	1,026	15	48	Well	Yes	No	Non

Sources: all above information taken fromvillages chief interviews

\* this information may not apply for every home in the village such as mobile phone coverage, electricity or source of drinking water

Table 3 - Villages' chief General information

Province/ District/ Commune/ Village Name	Village Code	SEX	AGE	Educational Background	YEARS as a chief
Kampong Cham : Chamkar Leu : Lvea (Leu) : Kbal Hong (Chas)	1	Male	60	Lower secondary school	1
Kampong Cham : Chamkar Leu : Lvea (Leu) : Kralaeng (Kaeut)	2	Female	32	Lower secondary school	7
Kampong Cham : Chamkar Leu : Lvea (Leu) : Lvea (Cheung)	3	Male	60	Lower secondary school	8
Kampong Chhnang : Baribour : Popel : Krang Khmaer	4	Male	63	Primary school	34
Kampong Chhnang : Baribour : Popel : Kraol Chi	5	Male	61	Lower secondary school	2
Kampong Chhnang : Baribour : Popel : Sala Khum	6	Female	44	None	6
Preah Sihanouk : Prey Nob : Tuek L'ak : Chrolong	7	Male	41	Lower secondary school	1
Preah Sihanouk : Prey Nob : Tuek L'ak : Kampong Smach Touch*	8	Male	56	None	N/A
Preah Sihanouk : Prey Nob : Tuek L'ak : Preaek Ph'av	9	Male	36	Lower secondary school	1
Preah Vihear : Kuleaen : Kuleaen Tbound : Kuleaen Tbound	10	Male	68	None	33
Preah Vihear : Kuleaen : Phnum Tbaeng Pir : Baribour	11	Male	55	None	7
Preah Vihear : Kuleaen : Thmei : Dan	12	Male	58	Primary school	15
Siemreap : Soutr Nikom : Samraong : Krang Khcheay	13	Male	59	Lower secondary school	13
Siemreap : Soutr Nikom : Samraong : Samraong Tbound	14	Male	60	Lower secondary school	26
Siemreap : Soutr Nikom : Ta Yaek : Praval	15	Male	60	Primary school	6
Takeo : Treang : Sambuor : Rovieng	16	Male	48	Primary school	26
Takeo : Treang : Sambuor : Tnaot Chum	17	Male	53	Primary school	24
Takeo : Treang : Thlok : Chen	18	Male	68	Primary school	28

Sources: all above information taken from villages chief interviews

\* The interview was conducted with village chief assistance because the village chief was not available

### Mother-leaders:

The research team interviewed 64 mother-leaders in 12 focus group settings. Table 4 shows general information about the mother-leader groups. Even though the majority of them had a reasonable formal education by Cambodian standards, 14 of them were not able to read and write. Only 8 of the interviewed mother-leaders said that they met the mothers in the home-based program in formal settings. With the exception of one mother-leader, the occupation of mothers-leaders was farmer or housewife.

### Quantitative Data:

The survey found that mother-leader groups have four training sessions a year, managed by the district education officers. The training focused on parenting issues, such as taking care of children, mother-child communications and involving children in basic home activities. In three villages the group reported that they had not done any activities in the last 6 months because they did not have sufficient free time because their work and home responsibilities. In only one village did the group refer to regular monthly meeting.

All mother-leaders groups indicated that the program created positive results for the children of participating mothers. Many of them mentioned the reduction of violence against children as one of the main results of the program. At the same time, they expressed the need for more support from NGOs, particularly with regard to capacity building.

Table 4- Mothers leaders' group information

Village Code	NUMBER INTERVIEWED	Read & Write		Educational Background		occupational Background			Period with in HBE?			How many mother in the group you lead				HB setting	
		can't read and write	can read and write	Finish PS	Secondary School	House wife	Farmer	other	less than six month	Less than a year	More than a year	Less than 5	between 6- 10	More than 21	DON'T KNOW	Formal setting	Informal setting
1	5		5	5		3	2				5	5				2	3
2	NO-HB																
3	3		3	3		3					3	1	2			1	2
4	5		5	1	4		5				5		5			3	2
5	NO-HB																
6	5		5	2	3	5					5		5				5
7	6		6	4			6			2	4	5	1			1	5
8	NO-HB																
9	6		6	6			6			6		5	1			1	5
10	7		7	6	1		7			7		2			5		5
11	NO-HB																
12	6	4	2				6				6				6		6
13	3	2	1	1			2	1	2		1	2		1			3
14	7	6	1	1			7		3	3	1	7					7
15	NO-HB																
16	NO-HB																
17	5	1	4	2			5										
18	6	1	5	2	1		6										
Total	64	14	50	33	9	11	52	1	5	18	30	27	14	1	11	8	43

District Education Office / program implementation adviser:

The survey found that the district education officer had the actual responsibility for the home-based education program. S/He was responsible for a number of functions such as training the mothers-leader group, program adviser and program coordinators in all villages in the district.

The research team interviewed 6 district officers twice, one as a district officer (phone interview) and the second as program adviser. All district education officers had teaching and educational experience of between 3 to 33 years. Five of the district education officers were responsible for the management of the program in more than 25 villages in their districts.

All reported that they had special training on one or more of the home-based program's objectives and activities and, in general, they had a common understanding of those objectives. In their opinion, the program was successful and had a positive impact on the lives of the children. Such positive impacts include: the reduction of domestic violence; the increase of school enrolment; the increase of knowledge and understanding of the relevant issues; and an increase in mothers' awareness of the importance of child-parent communication.

All District education officers suggested more involvement of NGOs in the program.

547 mothers:

The research team interviewed 547 mothers. They were chosen at random by knocking on doors in each village. Table 5 shows the mothers' marital status and housing conditions. The survey found 86% of mothers were married and living with their husbands and 9% were separated, or their husbands were working overseas or in other provinces. 3% of the mothers were widows and only 2% were divorced. 74% of the mothers were living in separate houses and 26% were living with extended families.

One change indicator in Cambodian villages is the number of women who have mobile phones. The survey found that 66% of mothers had access to mobile phones. At the same time, 88% of mothers did not have electricity in their homes.

Table 6 illustrates mothers' educational and occupational background. With regard to education, the survey found that 45% of mothers could not read and write. About 61% of mothers had finished primary or above formal education which suggests that many mothers lost their reading and writing skills after leaving their education.

With regard to occupation, 86% of mothers were farmers and only 5% were housewives. The survey found only one mother that was working at an NGO, despite most of the villages having NGO projects.

Table 7 illustrates mothers' economic situation. For farmers, the most significant indicator of the economic status is land ownership. The survey found that 79% of mothers from farming families owned land. The families of 54% of those owned less 1 hectare of land, with 27% owning 1- 2 hectare, 10% owning 2-3 hectare, 5% owning 3-4 hectare, 1% owning 4-5 hectare and 3% owning 5 or more hectare.

For mothers whose families did not own land or were not farmers, the survey found that 26% of them had a family income of US\$30 or less a month, 18% between \$31-50, 14% between \$51-80, 22% between \$81- 100 and 20% above \$100.

Table 8 shows mothers' participation in early childhood programs. The survey only targeted mothers with young children because of the study's objectives. Therefore, only 9 mothers from the total number interviewed did not have children under the age of 6 years old. 62% of mothers interviewed had 1 child under 6 years old and 34% had 2 children under 6 years old. The survey found that 46% of mothers had children enrolled in preschool services. 89% of those mothers enrolled their children at state preschool, 7% of them in community preschools and 4% in private owned preschools. Mothers who had children who were not enrolled in preschools explained it as follows: 43% of them thought there was no need, 25% thought there was no preschool in their area, 20% thought their child was too young, 7% said they had applied but the preschool did not admit them, 4% said that the preschool was too far from their home, and 1% said that they did not have anyone to take their children to preschool.

(Please note that in the target villages not all mothers whose children aged 6 years old were engaged in home-based education. Engagement was on voluntary basis).

Table 5- Mothers marital & housing conditions

Village Code	Marital Statue					Housing living condition		Belong to minority Group		Have Mobil phone		Electricity	
	Married	Separate	Husband Working in other provinces/oversea	widow	Divorce	Living in a separate house	Living with extended family	Yes	No	NO	Yes	NO	Yes
1	25	2	3			16	14	2	28	2	28	26	4
2	23	3	3	1		15	14		30	5	25	27	3
3	23	1	2	4		20	10		30	10	20	25	5
4	24	2	1	2	1	23	7		30	14	16	30	
5	28	1			1	25	5		30	14	16	30	
6	27		1		2	27	3		30	4	26	30	
7	23	4	2	3	1	22	11		33	16	17	25	8
8	25	1	3	1		23	7		30	15	15	25	5
9	25	2	2	1		23	7		30	11	19	24	6
10	28	1			1	23	7		30	9	21	17	13
11	29		1			27	3		30	18	12	29	1
12	27	2		1		26	4	1	29	16	14	27	3
13	28		1	1		24	6		30	9	21	25	5
14	27	1	2			23	7		30	6	24	20	10
15	29			1		26	4		30	10	20	29	1
16	26	1	1	1	1	22	8	1	29	12	18	30	
17	28		2	1	2	19	14	1	32	6	27	31	2
18	24	4	3			18	13	1	30	9	22	31	
Total	469	25	27	17	9	402	144	6	541	186	361	481	66

Table -6 Mothers' Educational &amp; Occupational Background

Village Code	Can Read & write		educational Background						occupation					
	No	Yes	University	Graduated from HSS	Graduated from LSS	Graduated from PS	Not graduate from PS/None	other	Farmer	House wife	self employed	Government	Work at NGO	Others
1	7	23		1	6	17	6		24	3	2			1
2	2	28			7	20	2	1	22	5	1		1	1
3	11	19		1	6	12	11		24	1		1		4
4	14	16		2	4	11	6	7	28	1	1			
5	18	12				21	7	2	29	1				
6		30		3	10	17			25	2		3		
7	14	19			2	22	4	5	31	1				1
8	13	17		1	2	15	10	2	30					
9	12	18		1		22	6	1	26	4				
10	18	12	1	1	4	6	18		24	1		2		3
11	26	4				2	27	1	29					1
12	25	5				3	27		29					1
13	23	7			1	8	21		22	5				3
14	13	17	1	2	2	10	11	4	16	3	1			10
15	25	5			1	6	23		25	2				3
16	13	17		1	2	23	4		28					2
17	4	29		2	8	23			32					1
18	6	25		6	6	14	4	1	29		2			
Total	244	303	2	21	61	252	187	24	473	29	7	6	1	31

Table7 - Mothers Economic situations

Village Code	Land ownership (farmers)		Income Non-farmers					Land owned area (farmers) Hectare					
	NO	Yes	\$30/less	\$ 31 - 50	\$ 51- 80	\$ 80- 100	\$101 /more	less than 1	1	2	3	4	5/more
1	15	15	2	4	2	6	1	11	1	3			
2	15	15	3	5			7	3	9	2			1
3	11	19	4	2	2	3		12	5	1	1		
4	2	28		2				22	5		1		
5		30						23	6				1
6	4	26	2			2		20	4	2			
7	5	28	1		1	2	1	20	5	3			
8	4	26	2		2			19	7				
9	6	24	1	1	1	1	2	11	13				
10	5	25		1	1	1	2	2	8	6	6	1	2
11	2	28	2					3	9	8	3	1	4
12		30						1	10	10	8		1
13	13	17	2	2	3	4	2	11	6				
14	13	17	4	2	1	3	3	14	2		1		
15	6	24			1	4	1	11	7	4			2
16	5	25	1		2		2	15	7	3			
17	4	29	2	1			1	16	8	2	1	1	1
18	6	25	4	1			1	18	6			1	
Total	116	431	30	21	16	26	23	232	118	44	21	4	12

Table 8 mothers' Participation in Early Childhood Programs

Village Code	How many childless 5 year old have						Are they enroll in preschool		if, yes what kind of preschool			if No, What the reason						HB participation		Do you know group leader		How often HB activities took place a year		
	1	2	3	4	5	0	Yes	NO	SP	CP	PS	preschool too far	No one take him	too young	Apply not accepted	No Need	No preschool in the area	No	Yes	No	Yes	1 to 2	3 to 4	Do not know
1	22	8					29	1	28		1				1			21	9	1	8	3	5	1
2	27	3					26	4	26			1	1	1	1			24	6	3	3	5	1	
3	20	9	1				27	3	27			1		2				10	11	2	9	10		1
4	20	8	1		1		20	10	6	14				4	6			1	29	9	20	16	13	
5	9	17	4				10	20	10					12	6		2	30						
6	20	8	1			1	25	4	25					1	3			5	25		25	18	7	
7	17	16					12	21	9	3		2		3		14	2	26	7	2	5	5	2	
8	20	10					9	21	8	1						21		30						
9	18	12					16	14	15		1			7		7		13	17	3	14	12	5	
10	28	2					11	19	11					6		13		22	8	1	7	6	2	
11	22	4	1			3	1	26	1			5	1			1	19	30						
12	22	5	1			2	1	27	1			1		4		2	20	16	14	14		8	5	1
13	16	12			1	1	13	16	8		5			11	1	4		26	4	1	3	2	1	1
14	19	11					20	10	18		2		1	6		1	2	23	7	4	3	2	1	4
15	19	9				2		28									28	30						
16	6	22	1	1			9	21	9					1	1	19		30						
17	19	13	1				15	18	15							18		29	4	4		4		
18	15	16					6	25	6			1			2	22		27	4	4		3	1	
Total	339	185	11	1	2	9	250	288	223	18	9	11	3	58	21	122	73	393	145	48	97	94	43	8

### **1300 Child Vulnerability Assessments:**

Table 9 contains data related to 1300 children age 15 years or less. 58% of these children were under 6 years of age. The data shows that 18% of children of school age were not enrolled at school. In some villages the survey found that about 50% of children of school age were not in the school.

With regard to health, the survey found that about 5% of the children are suffering from some form of chronic disease or disability. Mothers reported that 11% of the surveyed children were getting sick at least once in the last 6 months and 14% of the children had been seen by a medical doctor in the same period. Mothers also reported that 9% of the total children had been hospitalized last 12 months.

This study conducted Child Vulnerability Assessments for 1300 children. The assessments were based on data that had been collected during interviews with the children's mothers and village chiefs. In conducting the assessments the study applied the theoretical framework detailed in chapter 3. Table 10 explains the assessment's factors and scoring. This study assesses child vulnerability according to the impacts of 25 factors. Each factor was valued mathematically by assigning a number of points to reflect its value. Some of those factors have negative and positive values. To find the child vulnerability level, each child has starting points which are above any vulnerability score. In this study each child started with 130 points. The assessment process involves adding or subtracting the relevant number of points based on the applicable factors. Children who score more than 100 points are deemed not to be in a position of vulnerability (Non Vulnerable). Children who score 81 to 100 points are in low level of vulnerability (Low -Vulnerability). Children who score 51 to 80 points are in medium level of vulnerability (Medium-Vulnerability). Lastly, children who score 50 points or less are in high level of vulnerability (High- Vulnerability).

Table 11 shows the levels of vulnerability in each village according to the Child Vulnerability Assessment scoring. The survey found that 23% of children are non-vulnerable but in 6 villages all children are at some level of vulnerability. At the same time, the survey found that 23% of the children are in the high-vulnerability level with children among them that need a great attention and care, such as children with a chronic disease or disability. Table 11 shows that 24% of the children are in the low-vulnerability level and 30% in the medium-vulnerability level.

Tables 12, 13, 14 and 15 document the scoring for the four variables (Education, Health, Poverty and Isolation) and for each factor within them. The data in the tables confirms one of the main research hypothesis - that no one factor can decide by itself the vulnerability of a child, and that vulnerability is a result of the accumulated and combined effects of more than one factor. However, disability and chronic disease are the only factors that are most likely to put children in vulnerable levels because they are, by their nature, at a disadvantaged position and at a higher risk.

For that reason, it is correct to assume that all children with disabilities or suffering from chronic diseases are vulnerable children.

The study did not use the observation factor (O1, table 10) because such observations are rarely objective. However, the data collection team had noticed that in 62 of the interviews with mothers (about 12% of the mothers interviewed) there were cases of children malnutrition. The team also observed cases of alcoholism and unhealthy home environments.

Table 9 Children assessed by the study - age, school enrollment, disability, chronic disease and health information

Village Code	Children Age															School enrollment age 6-15		Child with disability	Child with chronic disease	Getting sick last 6 months	Have seen by a Dr. last 6 months	Hospitalize last year	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total	NO						Yes
1	1	1	5	12	17	4	4	8	6	5	3	5		3		74	2	36	1	2	4	10	5
2	2	1	1	11	18	4	5	9	3	5	1	3	1	2	2	68		35	1	3	4	5	7
3	5	6	2	8	20	4	5	2	8	4	3	9	1	3	2	82	3	38	0	0	10	13	7
4	5	3	9	15	7	4	2	2	4	4	1		1			57		18	0	3	7	9	4
5	13	8	11	6	17	8	1	4	1	2	1	1	2		1	76	3	18	0	2	4	21	9
6	4	3	7	5	20	2	4	3	3	3	1	4	1	4	2	66		27	0	1	3	14	4
7	12	12	2	9	14	5	3	1	6	2	3	7	2	2		80	1	30	0	0	3	11	10
8	12	6	9	6	12	4	5	2	5	2	6	4	3	1	3	80	4	31	0	0	0	1	1
9	12	4	4	12	12	2	7	6	4		4	1	7	1		76		32	0	9	4	5	5
10	11	5	5	5	6	5	4	1		4	3	3	3	3	2	60	8	20	0	4	11	11	7
11	4	7	6	5	13	4	3	4	5	4	1	3	3	2	1	65	6	24	1	5	13	14	4
12	3	6	8	3	11	4	2	2	2	4	2	2	5	1	3	58	6	21	2	2	8	8	2
13	8	7	4	7	15	6	6	5	3	5	4	2	6	1	3	82	15	26	1	7	18	15	10
14	7	6	4	8	17	2	2	3	6	1	5	1	2	2		66	6	18	0	5	18	14	10
15	10	4	10	7	8	7	6	5	2	4	2	8	4	2	4	83	15	29	0	5	16	16	13
16	16	7	8	8	14	5	5	2	1	1	1	2		2	1	73	6	14	1	3	9	6	9
17	17	7	4	12	7		3	4	2	3	4	4	5	4	1	77	11	19	0	1	7	6	5
18	17	5	5	12	9	2	1	3	2	6	2	4	2	3	4	77	14	15	0	0	1	2	2
	159	98	104	151	237	72	66	66	63	59	47	63	48	38	29	1300	100	451	7	52	140	181	114

Table10 - Child Vulnerability Assessment scores

Score	Vulnerability indicators	Vulnerability Variable	COD
-50	Child at school age but not enrolled at school	Education	E1
-30	Child that has a sibling at school age but not enroll at school		
10	Preschool enrollment	Education	E3
-10	Nearest primary school more 5KM	Education	E4
10	Mother education level above primary school	Education	E5
-10	Mother cannot read or write	Education	E6
-30	Family income less that \$30 a month (non-farmers)	Poverty	P1
-30	Family does not own a land (Farmers)	Poverty	P2
-10	Single mother	Poverty	P3
-10	If the nearest clinic is more 5KM	Isolation	IS1
-10	If the nearest hospital is more 25KM	Isolation	IS2
-10	If the nearest city is more 50 KM	Isolation	IS3
-10	Belong to a minority group	Isolation	IS4
-10	No Electricity	Isolation	IS5
10	Living with extended family	Isolation	IS6
-10	No mobile phone coverage	Isolation	IS7
-10	Last five years with no project implemented by an NGO	Isolation	IS8
-110	Disability	Health	H1
-110	Chronic disease	Health	H2
-10	No improve drinking water	Health	H3
-20	Child with sibling with a chronicle disease or disability	Health	H4
-30	Hospitalized last year	Health	H5
-20	Got sick in the last 6 months	Health	H6
10	Saw a doctor in the last 6 month	Health	H7
- up to 40	Observation factor : such as unhealthy environment, domestic violence, alcoholic and drug addiction		O1

Table11& 12 -Children vulnerability levels according to children vulnerability assessment

Village Code	Non Vulnerable		Low Vulnerability		Medium Vulnerability		High Vulnerability		total
	# of children	%	# of children	%	# of children	%	# of children	%	
1	58	78	8	11	4	5	4	5	74
2	46	68	8	12	8	12	6	9	68
3	52	63	14	17	14	17	2	2	82
4	34	60	16	28	2	4	5	9	57
5	8	11	32	42	26	34	10	13	76
6	57	86	7	11	1	2	1	2	66
7	3	4	27	34	40	50	10	13	80
8	5	6	22	28	36	45	17	21	80
9	0	0	28	37	32	42	16	21	76
10	5	8	22	37	15	25	18	30	60
11	0	0	0	0	35	54	30	46	65
12	0	0	2	3	38	66	18	31	58
13	2	2	22	27	28	34	30	37	82
14	15	23	15	23	23	35	13	20	66
15	0	0	32	39	20	24	31	37	83
16	9	12	16	22	18	25	30	41	73
17	4	5	27	35	27	35	19	25	77
18	0	0	13	17	20	26	44	57	77
Total	298	23	311	24	387	30	304	23	1300

Table 13 - Poverty Variable's factors scoring

Village Code	P1	P1%	P2	P2%	P3	P3%	Total score	P- Total %
1	180	4	0	0	110	3	4160	7
2	60	1	120	3	140	3	4210	8
3	330	7	90	2	210	5	4630	14
4	0	0	0	0	100	3	3070	3
5	0	0	0	0	50	1	4850	1
6	60	2	30	1	50	2	2610	5
7	30	1	0	0	270	5	5820	5
8	270	5	0	0	130	2	5320	8
9	0	0	0	0	90	2	5370	2
10	0	0	0	0	30	1	4730	1
11	0	0	90	2	10	0	5420	2
12	0	0	0	0	80	2	5050	2
13	0	0	210	3	80	1	7300	4
14	0	0	270	5	60	1	4920	7
15	0	0	0	0	30	0	6160	0
16	60	1	0	0	90	2	5650	3
17	60	1	0	0	120	2	6180	3
18	90	1	0	0	220	3	7359	4

Table 14 - Isolation Variable's factors scoring

Village Code	IS1 (-10)	IS1 %	IS2 (-10)	IS2 %	IS3 (-10)	IS3 %	IS4 (-10)	IS 4%	IS5 (-10)	IS5 %	IS6 (+10)	IS 6%	IS7 (-10)	IS7%	IS8 (-10)	IS 8%	Total score	IS-Total-%
1	0	0	0	0	0	0	50	1	660	16	350	8	30	1	0	0	4160	26
2	0	0	0	0	680	16	0	0	600	14	330	8	120	3	0	0	4210	41
3	0	0	0	0	0	0	0	0	680	15	270	6	270	6	0	0	4630	26
4	0	0	0	0	0	0	0	0	570	19	110	4	230	7	0	0	3070	30
5	760	16	0	0	0	0	0	0	760	16	100	2	410	8	0	0	4850	42
6	0	0	0	0	0	0	0	0	630	24	50	2	70	3	0	0	2610	29
7	790	14	790	14	790	14	0	0	570	10	230	4	360	6	0	0	5820	61
8	0	0	800	15	800	15	0	0	690	13	140	3	490	9	0	0	5320	55
9	690	13	690	13	690	13	0	0	560	10	170	3	240	4	0	0	5370	57
10	600	13	600	13	0	0	0	0	340	7	80	2	190	4	0	0	4730	38
11	590	11	590	11	590	11	0	0	570	11	70	1	340	6	0	0	5420	51
12	580	11	580	11	580	11	30	1	510	10	60	1	270	5	0	0	5050	52
13	820	11	0	0	0	0	0	0	710	10	200	3	260	4	0	0	7300	27
14	640	13	0	0	0	0	0	0	450	9	120	2	150	3	0	0	4920	28
15	830	13	0	0	0	0	0	0	790	13	110	2	290	5	0	0	6160	33
16	0	0	710	13	710	13	20	0	710	13	150	3	280	5	0	0	5650	46
17	760	12	760	12	760	12	20	0	700	11	320	5	100	2	0	0	6180	55
18	770	10	770	10	770	10	20	0	770	10	270	4	260	4	770	10	7359	60

Table 15 - Health Variable's factors scoring

Village Code	H1 (-110)	H1%	H2 (-110)	H2%	H3 (-10)	H3%	H4 (-20)	H4%	H5 (-30)	H5%	H6 (-20)	H6%	H7 (+10)	H7%	Total score	H total %
1	110	3	300	7	740	18	40	1	150	4	80	2	100	2	4160	37
2	110	3	410	10	680	16	40	1	10	0	80	2	50	1	4210	33
3	0	0	0	0	820	18	0	0	210	5	200	4	130	3	4630	29
4	0	0	370	12	570	19	0	0	120	4	140	5	90	3	3070	42
5	0	0	360	7	750	15	0	0	270	6	80	2	210	4	4850	34
6	0	0	20	1	630	24	0	0	90	3	20	1	120	5	2610	34
7	0	0	0	0	790	14	0	0	270	5	60	1	100	2	5820	21
8	0	0	0	0	800	15	0	0	30	1	0	0	10	0	5320	16
9	0	0	690	13	690	13	0	0	90	2	60	1	30	1	5370	29
10	0	0	480	10	600	13	0	0	210	4	220	5	110	2	4730	34
11	110	2	470	9	590	11	40	1	60	1	180	3	100	2	5420	29
12	220	4	300	6	510	10	100	2	60	1	160	3	80	2	5050	28
13	110	2	1030	14	820	11	60	1	300	4	360	5	150	2	7300	39
14	0	0	560	11	640	13	0	0	270	5	320	7	120	2	4920	39
15	0	0	670	11	790	13	0	0	390	6	320	5	160	3	6160	38
16	110	2	300	5	690	12	60	1	270	5	180	3	60	1	5650	30
17	0	0	110	2	740	12	0	0	120	2	140	2	60	1	6180	19
18	0	0	0	0	770	10	0	0	60	1	20	0	20	0	7359	12

# Evolution of Home-based Education program

The research team could not find any published study that evaluates home-based programs in Cambodia thoroughly and exclusively. The few studies that are available have dealt with the program as part of their evaluations of the whole of early childhood programs in Cambodia.

One study, however, does stand out. The study was funded by UNICEF and written by Nirma Rao and Emma Pearson (2007). The study's aim was to evaluate the effectiveness of early childhood programs in Cambodia, including home-based programs. Their judgments were based on the impact of those programs on children's educational developments. The researchers created four groups of children, with each group being associated with one of the early childhood programs in Cambodia (state preschool, community preschool, home-based and a control group of children were not enrolled in any program). The researchers assessed each of the four groups of children twice in order to compare the educational development of each group in a one year period.

With regard to home-based programs, Nirma Rao and Emma Pearson found that "there were no significant differences between children in Community Preschools and Home-Based programs at pre-test and post-test" (Rao, 2007). The authors also expressed the views of many stakeholders by praising home based programs "for its role in educating mothers about child development and empowering them to be better parents" (Rao, 2007). The research concluded, in the words of its authors, that "our empirical findings suggest that if children cannot go to the state preschool class they get similar benefits from Community preschools and Home-based programs"(Rao, 2007).

However, the research does not go on to explain why the home-based program was as effective as the community preschool program. There are also some questions about the way in which the group of home-based program children had been assembled. The research assumed that the children's development was based solely as a result of home-based program. However, the research states that 72% of the children in the home-based group had attended state or community preschool, which makes it very difficult to judge the impact that the other programs may have had on these children's development.

The evaluation of any educational program could be based on a number of aspects such as: 1) the program's rationale and objectives; 2) its design and implementation; and 3) its results and impact.

## Program Rationale and Objectives

The rationale for the home-based program in Cambodia is based on two facts. Firstly, as a result of the recent history of Cambodia and its economic and social situation, the majority of women have not had access to proper formal education and are lacking in their parenting skills. Secondly, the Government is not able to offer

preschool education to the majority of children because of the lack of human and economic resources.

The facts support this rationale. Government statistics indicate that only 16.8% of the total numbers of children aged 0-6 years old are receiving education (MoEYS, 2013). Our survey found that 45% of mothers are unable to read and write and 48% of children in preschool age (3-5 years old) are not receiving preschool education. In addition, the survey found that many children are losing the support of the extended family which has traditionally been the source of support for parents. The survey shows that only 26% of families are living with extended families. The survey also indicates the lack of public services, such as electricity and improved drinking water. Our survey found that only 12% of families have electricity and no family gets improved water.

The main objective of the home-based program is to reach vulnerable young children that the government is unable to reach by available preschool education. In the opinion of this study, the objective of the home-based program is viable and achievable. Our Child Vulnerability Assessment found that 77% of children had some kind of vulnerability and 23% of the children are with high vulnerability. Some of them are in urgent need for help and intervention as a consequence of their suffering from chronic disease, malnutrition or disability. Reaching those children and their parents is the correct objective.

### Program Design and Implementation

The design of any program should be appropriate to meet its objectives. We have discussed the history of the implementation of the home based programs in Cambodia in chapter 2 of this study. It is clear that the main objective is to reach vulnerable children by improving parenting skills.

The name of the program suggests that the home is the place where most the program activities would occur. However, “home” is missing as part of the Cambodia home-based program. As discussed in chapter 1 of this study, in the international experiences of home-based programs, home learning settings were a crucial part of all programs and for many of them were a central part of their success. Home as a learning setting is not only important to bring the services to the parents but it is important part of reaching young children.

By observing the program and by interviewing the program’s stakeholders, the research team has concluded that the implementation of the program has not followed the program’s guidelines. For example, in home-based education the village chief has an important role to play to support the program, especially encouraging all stakeholders involved in to follow the guidelines. Other examples where the guidelines had not been followed include the lack of a role for the school in the actual program implementation, and the lack of a technical advisory group. The research surveys found no active role for community or civil society figures in the program’s implementation. This study found that the actual implementation of the

program has been managed solely by the district education officer who has the responsibility to train mother-leaders groups and supervise the program's activities. .

We conclude that the reasons for this are as follows: 1) there is no clear guidelines for most of the key stakeholders; 2) the capabilities of stakeholders are limited; 3) there is a lack of monitoring and evaluation.

One of main weaknesses of the program was that it does not have the mechanism to ensure that the intended services reach the program beneficiaries. The survey found that there is training for the mother-leaders group 2-4 times a year but other than the training activities there are no reliable indicators of the execution or output of the program's activities. The survey found that 84% of mother-leaders have no regular formal meetings with the mothers. The survey showed that 33% of mothers participating in home-based program did not know their group leaders and 65% of mothers who were participating in the program said they participated in 1-2 activities during the last year, with 30% 3-4 activities, and 5% saying they could not remember any activities during the same period.

The survey found that 29% of mothers answer positively to the question of whether or not they had participated in any activities to improve their parenting skills. 14 of them mentioned that they had participated in activities aimed at increasing their knowledge about pregnancy, 20 mentioned child nutrition, 31 mentioned child hygienic habits and 21 mentioned teaching children basic reading and writing. The survey found that the most activities remembered by those mothers were those held in public meetings or venues and not those meeting with mother-leaders, as is supposed to happen in home-based programs. This questions the value and quality of information that has been provided to the mothers through the program.

### Program's results and impacts

The first step in the evaluation of any program's impact is to identify the beneficiaries. The program was designed to firstly target the mothers of children who are not accessing other preschool programs. The survey found 54% of the mothers met this criterion. However, only 16% of them were participating in a home based program. The second target for the program is that all mothers with young children can benefit from the program. Here, the survey shows that 73% of the mothers that were interviewed were not participating in a home-based program. This is an indication of the limited impact of the program and the limited number of its actual beneficiaries.

Programs like the home-based program are aimed at helping vulnerable children and reducing children vulnerability. The Cambodian home-based program aims to do this by educating mothers with young children, with the goal of reducing child vulnerability in two crucial aspects; health and education. Consequently most of the program's activities and documentation is aimed at educating mothers in health and education issues. Logically, good impact of the program means less vulnerable children in the area where the program has been targeted. In next paragraphs, this supposition will be tested according to the study's Children Vulnerability Assessments.

Table 16 illustrates the Child Vulnerability Assessment results for children aged 3-5 years old, which represents the main target group for the home-based program. The results are divided into those not receiving any early childhood services, and children whose mothers are participating in home-based program. The table shows that the percentage of highly vulnerable children participating in a home-based program is a little higher than the other two groups, which indicates that the program has not achieved its objectives.

Table 17 compares the Child Vulnerability Assessment between two groups; one group of children living in villages where a home-based program is implemented and the second group for children living in villages where a home-based program has never been implemented. The data shows the percentage of non vulnerable children in villages that have implemented home-based program being higher than the percentage of the same level of vulnerability in villages that have no home-based program. At the same time, the percentage of children in the high vulnerability level is higher compared to their counterparts in villages that have no home-based program implemented. The program has therefore not made a significant impact with regard to child vulnerability. Table 17 also illustrates that the program has not produced any noticeable results in increasing school enrolment or children's health.

Table 16 Children vulnerability age 3-5 according to their receiving preschool program

Children age 3-5	Total	Non-Vulnerability		Low Vulnerability		Medium Vulnerability		High Vulnerability
		#	%	#	%	#	%	#
Children attending Preschool state /Community	272	68	25	67	25	92	34	45
Children not receiving any preschool program	185	48	28	40	24	53	31	44
children in HB program only	32	9	28	9	28	8	25	6

Table 17 - Children Vulnerability in villages have implemented Home Based program and villages do not have the program

Villages	Total CHILDREN		Non Vulnerable		Low Vulnerability		Medium Vulnerability		High Vulnerability		School enrollment age 6-15				Children with chronic disease & disabled children		Getting sick last 6 months		Have seen by a Dr. last 6 months
	#	%	#	%	#	%	#	%	#	%	NO		Yes		#	%	#	%	#
											#	%	#	%					
with no HB Program	445	34	122	27	113	26	111	25	99	22	34	18	151	82	21	5	46	10	63
where HB Program implemented	855	66	176	21	198	23	276	32	205	24	66	18	300	82	38	4	94	11	118

## Final discussion and recommendations

Reaching vulnerable children is primary objective for many non-profit NGOs. For governments, reaching vulnerable children is a duty and a sign of good governance. Policies, strategies, programs and projects should be guided by the objective of reaching vulnerable children. In poor countries like Cambodia, where there are a large numbers of vulnerable children, the success of reaching those children not only corrects the present but also builds the future.

As we discussed in previous chapters of the research, home-based programs have been initiated to reach vulnerable children. The programs are based on the valid rationale and the practical experience of the programsthat have indicated some benefits. Cambodian home-based programs do not differ in their objective from programs around the world. However, the Cambodia is unique in dealing with the challenges from the legacy of its recent past.

The evaluation of the Cambodian program is not an easy job, given the small number of existing studies and the lack of program documentation. Therefore, this study has applied a new research method called the Child Vulnerability Assessment. The assessment provides a method of measuring child vulnerability based on a number of objective factors that apply to a child's social and physical environment. The results of the assessment of 1300 children are compatible with the results of numbers of national surveys. The Child Vulnerability Assessment method could be used as a tool in any developmental project aimed at improving the conditions of children. This study also demonstrated, with further study and improvement, that it could be used as an evaluation tool beside other evaluation methods.

This study also argues that not only is it the lack of resources that impact on a program's implementation in Cambodia, but it is also the mentality of acceptance that things cannot be achieved because of the lack of resources. The mentality has been referred to as doing "something better than nothing". Indeed it is, but we should always strive for more.

The question is what should we do now? Is there a way to improve the program in order to make the significant changes in its design and implementation to achieve success?

We put these questions to a panel of people who are involved in a home-based education program in Cambodia in two meetings. The following points summarize their opinions:

- They believed that the program has some success in changing the lives of children in villages where the program has been implemented. Some mentioned that the program has produced some positive results such as improving mothers' parenting knowledge, increasing school enrolment and

reducing violence against children. They base these conclusions on personal observation during their visits to areas where the program was active and talking with stakeholders.

- Some pointed to the support of international organizations for the program, such as the UNICEF and World Bank, as an evidence of the program's success.
- They thought that home-base education programs are still the only option for young children where no other center-based preschool education is available. At the same time, they agree that there are weaknesses in the program's implementation.
- They all agree that the program should continue but they were divided on whether or not the program needed improvement.
- They agreed on the need for the program and the rationality of its main objective to reach vulnerable children. They shared the idea of the necessity of strengthening the program's monitoring and evaluation procedures.
- Some thought that the lack of impact of the program is a result of insufficient resources for the program. Others thought that the program had not been implemented for long enough to produce its expected results and impact. Some therefore wish for more time and resource.

The study recommends:

- 1) Home visits are the core of the home-based program and is key to its success. Therefore, it is necessary to adapt the program to ensure that it reaches parents in their homes.
- 2) The role of the professionals in the program should be strengthened. The international experiences of the program clearly indicate the significance of the role of the professionals, which is absent in the Cambodian program.
- 3) Local communities, NGOs, schools should have more responsibility in running the program.
- 4) The program should target the most vulnerable children in the community and optimize its activities according to their needs in each village. Child Vulnerability Assessment is useful method that can be employed in program planning and implementation.
- 5) Program documentation should be enhanced, as should monitoring and evaluations procedures.

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