I. Introduction

In the context of funding received through the Fast Track Initiative (FTI), the Royal Government of Cambodia is increasing and improving its delivery of preschool services. The specific programs (whose time horizon is 2008-2012) are:

- 550 new formal ECCD classrooms (Formal Preschools, FPS) within newly renovated/upgraded primary schools in disadvantaged areas. Each ECCD classroom is staffed by a trained teacher and targets about 25-35 children ages 3-5 and their families.
- 450 new Community Preschools (CPS), each targeting about 18-25 children ages 3-5 each and their families.
- 450 new Home Based Education Programs (HBP), each targeting an average of 25-30 families of children ages 0-5.

An impact evaluation of a sample of these programs is currently underway. This involves evaluating 32 of the formal ECCD classrooms, 32 of the CPS and 32 of the HBP. Thirty-two non-treatment or control villages have also been included in the sample.

In 2010, as part of the impact evaluation, monitoring data were collected in the 96 villages that were included in the impact evaluation of informal ECD services, including villages that were expected to have an operational CPS or HBP (treatment group) and control villages. The purpose of the monitoring evaluation is to assess the quality of the ECCD interventions included in the impact evaluation.

The purpose of this report is to present the results of the monitoring evaluation and discuss the implications. It will begin by providing background to the ECCD Interventions and the design and aims of the impact evaluation. Following this, the purpose and methodology of the monitoring evaluation will be outlined. The results of the monitoring evaluation will then be discussed. The results section is divided into two parts. The first part is the descriptive analysis, where the data on the quality of the interventions is summarized. The second part specifies the extent to which the ECCD interventions implemented deviate from the original FTI-design. Finally, the likelihood that the various ECCD interventions, as implemented, are likely to yield an effect on various outcomes is discussed.

II. Description of the ECCD Interventions

The following are details regarding each type of education intervention planned under FTI and are included in the impact evaluation.

<table>
<thead>
<tr>
<th>Description</th>
<th>CPS</th>
<th>HBE</th>
<th>FPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of children in each class</td>
<td>25-30</td>
<td>18-25</td>
<td>25-35</td>
</tr>
<tr>
<td>Children’s ages</td>
<td>3-5 years</td>
<td>0-5 years</td>
<td>3-5 years</td>
</tr>
<tr>
<td>Total number of children served by this model (low estimate)</td>
<td>8,640</td>
<td>11,250</td>
<td>16,250</td>
</tr>
<tr>
<td>Class schedule</td>
<td>3hrs/day,</td>
<td>Core mothers</td>
<td>4hrs/day,</td>
</tr>
<tr>
<td></td>
<td>5days/wk</td>
<td>meet 1x/mo.</td>
<td>5days/wk</td>
</tr>
<tr>
<td>School year</td>
<td>October-July</td>
<td>Year round</td>
<td>October-July</td>
</tr>
</tbody>
</table>

The HBP was planned to involve monthly meetings between parents and the “core” mothers - women with more experience, selected by villagers, but from the same villages and socio-economic
circumstances as the other mothers. It was planned that the core mother would receive formal training from the Ministry of Education Youth and Sport (MoEYS) on parenting skills and ECCD. The core mother would then share this information with mothers at the monthly meetings.

Ideally, core mothers would lead groups of 3-5 mothers. These mothers, known as “group leaders” would in turn lead a further 3-5 mothers enrolled in the program.

CPS classes under FTI are designed to be 3 hours per day, 5 days a week and are conducted by a community teacher who has received formal training through the MoEYS.

Ideally, CPS is conducted in a shelter designed specifically for the purpose of pre-school instruction. The shelter should provide a safe learning environment, be near water and toilet facilities, and be built using sustainable materials with local labor. Under FTI, there is funding allocated for teaching and learning materials such as books, paper, pencils, etc. but there is not funding provided to build a shelter. Other CPS models that have included the shelter estimate the cost to be $2500-$3000 for one sustainable shelter. Alternatives to a CPS shelter identified for the FTI programs include: local home, local center, local primary school classroom, under a tree, or construct a school with only local resources.

ECCD programs have also been implemented by MoEYS with funding from UNICEF and Save the Children in 12 Cambodian provinces. FTI planned to implement ECCD programs in provinces that are not currently supported by one of these other organizations. While all current CPS and HBP programs in Cambodia aim to achieve positive outcomes and are similar in their implementation and curriculum, there are some differences that exist between each program depending on its funding source. Differences between the UNICEF, Save the Children and FTI-supported ECCD programs are discussed in the results section later in this report.

III. The Impact Evaluation

An impact evaluation of a sample of the FTI-supported activities is currently under way. Baseline data were collected from April to August 2008 (in a sample of villages expected to receive CPS or HBP) and from November 2008 to January 2009 (in a sample of villages expected to receive the FP intervention). Follow-up data will be collected in late 2010 for the informal sample (i.e., CPS, HBP, and control groups) and in 2011 in the formal sample (i.e. FPS and control groups).

Little is known about how to cost-effectively improve cognitive and socio-emotional development at early ages, especially for large-scale programs that have moved beyond an initial pilot phase. This research will help governments identify interventions that have an impact on child cognitive development and other outcomes in early childhood. The evaluation will disaggregate the results by baseline measures of household welfare. This is important because part of the justification for these types of interventions is that they can help equalize opportunities for the poor. Moreover, some evaluations have found that the impact of interventions on cognitive development is largest among the poorest households, where cognitive deficits are largest to begin with.

The Impact Evaluation Design

This impact evaluation uses a difference-in-differences model to evaluate the three types of education interventions. Baseline data were collected from villages receiving each type of education program prior to implementation (2008). Data will be collected again in 2010 after the programs have been running for at least one year and analysis will be done on various child development indicators.

The following are the research questions the impact evaluation attempts to answer:

1. Does the program help children develop to their full potential?
a. Cognitive development  
b. Language and vocabulary development  
c. Social, emotional, and physical development

2. Does the program improve school readiness upon Grade 1 entry?
3. Does the program improve health/nutrition practices and outcomes (i.e., nutrition, stunting, morbidity)?
4. Does the program raise household productivity?
5. Does the program change parenting practices / time spent with children in educational activities?
6. What is the Cost-Effectiveness of various ECCD interventions?

In order to answer these questions, these are the specific outputs and outcomes to be studied:

- Take-up of preschool services.
- Children's developmental (school) readiness across domains, right age entry to Grade 1.
- Retention and promotion of children in primary school especially in Grades 1 and 2, as measured by repetition, drop out, and promotion rates.
- Learning achievement at the primary level (such as early grade reading ability).
- Health/anthropometric status

The study design allows an evaluation of the impact of formal preschools, of community-based preschools, and of home-based education programs as alternative modalities for delivering ECCD services. These different models have substantially different capacity and cost requirements and therefore a careful assessment of their relative benefits is an important part of the strategic decision of how to scale up early child development services in Cambodia.

IV. The Monitoring Evaluation

In 2010, monitoring data were collected in the 96 villages that were included in the impact evaluation of informal ECD services, including villages that are expected to have an operational CPS or HBP at this time (treatment group) and control villages. These villages are located in the provinces of Battambang, Banteay MeanChey, Takeo, and Kampot. The monitoring evaluation is focused only on the informal sample because the formal preschools have not started yet.

The purpose of the monitoring evaluation is two-fold: (1) to assess whether ECD services are indeed taking place as planned in treatment villages and (2) to assess variations in the level of quality of ECD services provided across villages.

The following are the proposed research questions for the monitoring evaluation:

1. How are the ECCD services taking place in treatment villages? For CPS villages? For HBP villages?
2. Are any control villages receiving ECCD services? If so, what type of ECCD services? Are these services provided as part of FTI or by another provider?
3. Are any treatment villages not receiving ECCD services, or receiving the wrong kind of ECCD services (e.g., they got a CPS instead of a HB). Do we know why?
4. What is the variation in the level of quality of the ECCD services provided?
5. Is it likely that the ECCD services will help children develop to their full potential?
   a. Cognitive development
   b. Language and vocabulary development
   c. Social, emotional, and physical development
(6) Is it likely that the ECCD services will improve school readiness upon Grade 1 entry?
(7) Is it likely that the program will improve health/nutrition practices and outcomes (i.e., nutrition, stunting, morbidity)
(8) Is it likely that the program will change parenting practices / time spent with children in educational activities?

V. Methodology of the Monitoring Evaluation

Sample

Village stakeholders in the 96 villages that were included in the impact evaluation of informal ECCD services, including villages that were expected to have an operational CPS or HBP at this time (treatment group) and control villages. However, as some programs were not implemented, not all stakeholders were included.

Specifically, the sample included:

- 31 CPS teachers
- 32 villages leaders from villages where CPS has been implemented.
- 32 Core mothers
- 32 village leaders from villages where HBP has been implemented
- 5 parents per village where the HBP or CPS has been implemented. The parents were randomly selected from the list of parents in that village who had participated in the baseline data collection.
- 31 village leaders from control villages

Instruments

Eight instruments were developed for the purpose of the monitoring evaluation. This included seven surveys and one observation instrument (see Appendix A for copies of all the instruments). All instruments were developed by the team and tested in CPS and HBP in Ratanakiri Province, Cambodia. The data collection enumerators were then trained in the proper administration of the instruments. The instruments were piloted twice in CPS, HBP and control villages in Takeo that were not included in the impact evaluation. The instruments were then adapted based on feedback from the pilots.

Control village leader questionnaire: Administered to, ideally, the village leader. The purpose was to ascertain whether there were any control villages receiving ECD services.

HBP core mother questionnaire: Administered to the core mother. The purpose was to ascertain the practicalities of program implementation (e.g. which program participants does the core mother meet, how often, what do they discuss etc) and the core mother’s overall motivation and satisfaction.

HBP village leader questionnaire: Administered, ideally, to the village chief. The purpose was to ascertain whether the HBP was operational and if not, why not. Additionally, it attempts to assess efforts made to promote the program internally in the village and the village leader’s overall satisfaction with the program.

HBP parent questionnaire: Administered to 5 randomly selected parents in each village who participated in the baseline survey. The purpose was to ascertain if the parent’s child was enrolled in the program, the extent to which the parent has been exposed to child development concepts/training and the parent’s overall satisfaction with program. For those parents’ whose children were not enrolled in the program, the questionnaire aimed to ascertain the reason their child was not enrolled.
**CPS teacher questionnaire:** Administered to the CPS teacher. The purpose was to ascertain the practicalities of program implementation (e.g. the number of children enrolled, the frequency of classes, venue location etc) and the CPS teacher’s overall motivation and satisfaction.

**CPS village leader questionnaire:** Administered, ideally, to the village chief. The purpose was to ascertain whether the CPS was operational and if not, why not. It also attempted to assess efforts made to promote the program internally in the village and the village leader’s overall satisfaction with the program.

**CPS parent questionnaire:** Administered to 5 randomly selected parents in each village that had participated in the baseline data collection. In the case where the parent’s child was enrolled in the program, purpose was to ascertain whether the child was attending classes regularly and the parent’s overall satisfaction with the program. Alternatively, if the parent’s child was not enrolled in the program, it sought to obtain the reason the child was not enrolled.

**Community Preschool Classroom Observation Checklist:** One observation instrument was developed to help assess quality of the CPS class. The instrument is based on the Cambodian Early Childhood Environment Rating Scale (CECERS) developed by Rao & Pearson (2007). However, several items from the original CECERS have been deleted or modified and a few items have been added to reflect the context and aims of the monitoring evaluation. The instrument is designed for two enumerators. After observation in the centre is complete, the two enumerators would leave the centre and complete the items together, discussing and agreeing on scores for each item.

**Stage 1: Data Collection Preparation**

There was a great deal of preparation before data collection began including, preparation of research instruments, staff/enumerator recruitment and training, preparation of data software, and other administrative arrangements.

First, the monitoring instruments were translated into Khmer. This process involved discussion with the PIs regarding the content of the questionnaires. Culturally irrelevant or inappropriate material was removed and then the documents were translated to be used in the field. In addition to translation, a field protocol was developed in English and Khmer between the PI's and BN Consult to assist enumerators in administrating and scoring the surveys.

Enumerators were recruited from outside and supervisors were drawn from BN Consult staff. Enumerators underwent training on administering surveys and were finally evaluated during the pilot collection. Enumerator training for the CPS and HBP baseline data collection was conducted by the Director of BN Consult, Mr. Bunly Seng.

Training consisted of six days of orientation and two days to pilot the research instruments and conduct a final evaluation of potential enumerators. The following pieces were central to the training curriculum:

- Orientation, background, and purpose of ECCD Monitoring Evaluation
- Introduction to the seven surveys and observation instrument.
- How to administer each questionnaire and interact with survey participants
- Questions and answers about each questionnaire
- Role playing of administering surveys
- Pilot collection of data
- One day debriefing
- Instruments modified based on feedback from pilot
- Second pilot collection of data
- One day debriefing
- Instruments modified based on feedback from pilot

Enumerators who successfully completed each part of the training program were then hired to conduct the final data collection.
Five parents that participated in the baseline data collection in each HBP and CPS village were randomly selected to participate in the monitoring evaluation.

In order to prepare for data entry once questionnaires were complete, BN Consult staff created a data template that corresponded to each questionnaire. The data set was created in SPSS and entered via the web-based application, MSSQL.

The final administrative arrangements prior to data collection included preparing and obtaining a permission letter from the MoEYS to survey the community, insurance documents, and a field procedure plan. Additionally, all research materials (i.e., survey instruments) were produced and organized for each field team of enumerators, who then proceeded according to the field procedure plan.

**Stage 2: Data collection**

This part of the data collection process involved the implementation of data collection and simultaneous data entry as questionnaires were completed. The following protocol was followed:

1. Introductions to identify the village chief
2. Explain the objective of the interview and obtain verbal informed consent
3. Conduct interview
4. Ask the village chief to identify the CPS teacher/core mother (for treatment villages)
5. Repeat steps 1-3 for CPS teacher/core mother and parents.

Completed questionnaires were brought back to BN Consult in Phnom Penh regularly for entry into the previously constructed template.

**Stage 3: Report and data submission**

This stage involved data management and final report writing. BN Consult worked with a World Bank consultant to clean the final data set. Ultimately, complete data sets in SPSS were submitted to the PIs.

**Additional data collection**

In addition to the survey instruments, enumerators kept notes of any information that would not be reflected in the data collected with the survey instruments but thought might be relevant to the data collection results. Moreover, 4 CPS teachers and 4 core mothers were informally interviewed in an effort to fill in information gaps in the quantitative data collection.

**Limitations in Data Collection/Management**

There are some issues that should be mentioned regarding data collection and management. The following are barriers that made data collection difficult for the BN Consult team.

- **Interviewee busy** – Sometimes, the interviewee was busy working (i.e., farming) and was difficult to contact to interview.
- **Recall bias** – In some cases, core mothers and CPS teachers had misplaced enrollment lists for the program or had not recorded the start and dates of the program. In these cases the enumerator had to rely on the interviewees’ ability to recall details.
- **Translation** – The questionnaires were in Khmer and the final data sets and reports were to be in English. This made for time consuming data entry and cleaning.
- **Confusion with baseline data collection** – on a number of occasions, enumerators reported that parents confused the baseline data collection of the impact evaluation with participation in the HBP. For example, when describing meetings with the core mother/group leader to enumerators, parents would occasionally mention tests that the enumerators conducted with the children in the baseline data collection. When this occurred, the enumerators would probe further and frequently it would be revealed that the parents were not enrolled in the HBP at all.
VI. Results

Descriptive analyses

The results tables of all variables included in the monitoring evaluation can be found at Appendix B.

Six of the 32 CPS programs have been terminated and 4 of the 32 HBP have been terminated. Therefore, the results section will only include data from the CPS teacher/core mother and parent surveys from the 26 CPS programs and 28 HBP that are ongoing. However, data from all 32 village chief surveys for both the CPS and HBP will be included.

CPS Quality Assessment

Attendance rates: On a typical day, most CPS teachers reported that they had less than 10 students absent. 9 reported that there were between 10 and 20 students absent on a typical day. A number of enumerators also noted that rate of absenteeism is perhaps even higher than the teacher reported based on the classroom observation. One program was terminated because not enough children attended.

The most frequently cited reason for child absenteeism was that children were sick. The second most frequently cited reason was that children did not want to attend and the third was that parents were unable to transport their child to the class.

Teacher qualifications: Overall, it appears that appropriately qualified villagers were selected to be CPS teachers.

Of the 26 teachers currently teaching, the average age was 28.2 and the age range was 19 to 53. There were 25 female teachers and only one male. On average, the teachers had completed 7.62 years of education, ranging from 4 to 11 years.

In the 12 months prior to commencing his or her role as a CPS teacher, 25 were employed and 1 was unemployed. Most teachers did not have any prior professional experience with children. Only two teachers had been employed as a teacher in the 12 months prior to their appointment as a CPS teacher. The majority (n=23) were farmers. However, it is possible that a number of CPS teachers had some experience teaching before the last 12 months prior to being nominated as the CPS teacher. Indeed, 4 village chiefs reported that the CPS teacher was selected because he/she had prior experience teaching children. A further 6 noted the CPS teacher had prior experience in teaching generally.

The two most common criteria cited by the village chief in the selection of the CPS teacher were that he/she was good with children and that he/she had more education than most villagers. The second most cited reason was that the CPS teacher was of good character. All three criteria are arguably important characteristics of a good teacher.

Only one village chief cited “a better teacher” when asked what he would like to improve about the program. Two out of the 20 parents interviewed who withdrew their child from the preschool did so because they did not believe the teacher was any good.

24 teachers received pre-service training, mostly in April 2009. One teacher reported that she had only received 7 days, the remaining 23 received 10 days and an average of 7 hours/day. All 26 CPS teachers have attended refresher courses. They reported to have attended a mean of 4.6 additional training sessions, each lasting an average of 4 days and 7 hours/day.
7 village chiefs believed the CPS teacher needed more training. 7 out of 56 parents with children currently enrolled in the CPS program believed that the teacher needed more training.

**Teacher remuneration, motivation and satisfaction:** It appears that teacher remuneration is an ongoing issue for the CPS program. Four out of the 6 village chiefs from villages where the CPS program was terminated reported that the program ended at least partly because the teacher did not receive the stipend. Seventeen of the 26 remaining teachers had received a stipend, however, only 5 began receiving a stipend in 2009. While there was no question in the survey asking whether the stipend was received regularly, one enumerator noted that a teacher reported that they did not receive a stipend every month.

Eight of the 9 CPS teachers who had not received a stipend noted that this is something they would like to improve about the program. Of these 8 teachers, 4 rated receiving a stipend as the most important thing to change about the program. Five CPS teachers said that receiving a higher salary is something they would like to improve about the program.

Sixteen village chiefs expressed concern that the CPS teacher had not received a stipend. This high number most probably reflects that many of the village chiefs are not aware that a number of the CPS teachers have begun to receive the stipend. Nonetheless, it is also suggests the absence of a stipend had been a concern at some point.

With regards to satisfaction, 16 CPS teachers rated themselves as happy or very happy to be a CPS teacher, 9 rated themselves as somewhat happy and 1 said they were unhappy.

Most CPS teachers reported a personal commitment to childcare work. 19 rated their belief that children who participated in the CPS had a head start on grade one as something they liked about the program. 12 reported that this was what they liked most about the program, ahead of personal development and increased status. A further 14 rated improvements in the children's personal qualities, such as confidence, discipline and communication as something they liked about the program.

**Parent involvement in the program:** It appears parent involvement in the program is low. Only 6 CPS teachers had held at least one group meeting with all the parents and only one of these teachers did so regularly. Seven CPS teachers have held individual meetings with parents but only 1 has done so with all the parents. It should be acknowledged that over half the parents with children enrolled in the program had discussed their child’s progress informally with the teacher when they dropped off/picked up their child from school. Therefore, it seems that at least some CPS teachers informally involved the parents in the program.

The four CPS teachers that participated in a follow-up informal interview were asked more in-depth questions about parent participation. Interestingly, their responses varied significantly. Two teachers who did not meet with parents advised that they believed meeting with parents was the role of the village chief. Another teacher noted that while she was advised in training to have formal meetings with parents, she had not found the time to do so. A fourth CPS teacher explained that as the women’s representative on the commune council, she already regularly meets with parents both individually and in groups to discuss women and children issues. Now, she also discusses the importance of the CPS program.

**Child/teacher ratio class or group-size:** There was an average of 23.7 children in each class. While this suggests that there was good child/teacher ratio, it also raises the possibility that children are being unnecessarily excluded. A number of parents noted that they were aware of other parents in the village who wanted to enroll their child but couldn’t because the program was full. Five out of the 10 parents who believed that they were not given the opportunity to enroll their child couldn’t because the program was full.
**Physical environment of child center:** Generally, it seems the physical environment of the CPS venue could be improved.

The most common CPS venue was under a house (n=11). 42.3% of CPS programs met under a house, 23.1% meet in the primary school and 11.5% meet outdoors. According to the Community Preschool Classroom Observation Checklist, 80% of CPS classes were held in a space large enough to cover the children and the activities. 19 of CPS teachers requested a better venue. 10 of these teachers said that this would be the factor they would most like to improve about the program.

21 of the 26 classes were observed using open land as a toilet. The remaining five classes had access to a toilet connected to a sewerage tank. Only five classrooms had clean water available for drinking, 16 drank from an open pond, and in five classes water wasn't available.

Only one parent who had children enrolled in the preschool believed that parents who did not enroll their children because they are unhappy with the venue, 34% believed the CPS needed a better venue, 6.2% believed this was this the most important factor to be improved. That said, not a single parent who chose not to enroll their child in the CPS cited issues with the venue as the reason why.

**Materials and equipment:** Overall, it appears the amount and quality of materials and equipment used by the CPS programs included in the impact evaluation was quite low.

23.1% of children were observed to be sitting on concrete or dirty and uncomfortable mats. In 65% of classrooms, there was no chair or table for the teacher to use.

84% of classrooms did not have storage space for the teacher to use for teaching resources, 73% did not have storage for play materials.

According to results of the Community Preschool Classroom Observation Checklist, the majority (69%) of classrooms were judged to have sufficient teaching materials. The teaching resources were well utilized, over half the teachers used materials/books to introduce concepts frequently and 69.2% did so with flexible guidance.

However, 53.8% of teachers believed the CPS program would be improved if they had more teaching resources. This apparent divergence between what the enumerators and the teachers judged to be a sufficient amount of materials could be explained in part by the training received by the enumerators. During training, actual examples of teaching materials assigned to CPS teachers were shown to the enumerators. Therefore, it is possible that when the enumerators observed these same materials in the CPS venues, they judged the class to have a sufficient amount of teaching resources. Teachers, on the other hand, may not think that teaching resources assigned to them are adequate in meeting the needs of their class.

According to the Community Preschool Classroom Observation Checklist, 50% of classes did not have enough student materials. Further, 65.4% of the CPS teachers believed the CPS program needed more student resources. 30 parents believed it would benefit from having more resources.

**Curriculum used in preschools:** Based on the results of the Community Classroom Observation Checklist, it appears that most classrooms engage in activities that involve problem solving, fine and gross motor skills, communication and socio-emotional development.

*Problem Solving Activities and Cognitive Development:* 22 out of 26 classes engaged in problem solving activities (eg: sorting shapes, colors and objects). In 77% of those classes that engaged in problem solving activities, more than half of the children actively participated. 61.5% of classes received flexible and responsive guidance from the teacher when undertaking these activities.
12 classrooms did not teach numbers, 6 taught numbers but children simply recited or copied numbers without relating it to a number of objects. In 86% of programs where the CPS teacher taught numbers, more than half the children actively participated in the activity.

11 classrooms did not teach the alphabet. In the 15 that did, more than half the children actively participated in learning the alphabet.

Fine Motor Activities: 18 classes engaged in fine motor activities, however, only 7 engaged in a variety of fine motor activities. Of these, 10 classes received flexible guidance from the teacher, 5 received rigid guidance that was not responsive to the specific needs of the children and 3 either received either punitive or no guidance. More than half the children participated in 55% of the classes that engaged in fine motor activities.

Gross Motor Activities: All classes participated in gross motor activities, with 24 engaging in 4 or more activities during class. 23 classes engaged in a variety of gross motor activities that included teacher organized activities and free play. 16 CPS teachers provided flexible and friendly guidance during gross motor activities.

Communication: In all classrooms, children had frequent opportunities to speak. However, in most classes speaking opportunities were formal and routine (eg children responding to questions) or it was because the classroom lacked discipline. In 24 of the 26 classes, peer-to-peer communication outside formal activities was permitted. However, it was only encouraged in 12 classrooms.

Social Interaction: Social interaction is deliberately encouraged during free time and other activities in 13 of the classes. Social interaction was permitted but not encouraged in a further 30.8% of classes.

Interaction between CPS teacher and child: The results of the Community Preschool Classroom Observation Checklist suggest that that the quality of the interaction between children and teachers is positive at most CPS schools.

As noted above, in the majority of children in the sample population received guidance from teachers that was judged to be flexible and responsive to the needs of the child. In 24 of the 26 classes, the teacher interacted with the children all the time. In 13 of the classes, the teacher was observed to interact individually with over half the children. In 16 of the classes, the overall quality of interaction between the children and teacher was rated as pleasant. 10 rated the interaction as unpleasant or indifferent.

Intensity of exposure: All programs except 1 met 5 days a week. The reported average class length was 1 hour and 51 minutes, the observed class length was 1 hour and 37 minutes.

According to the CPS teacher, most (n=20) started in May 2009 and 4 commenced in April 2009. Two CPS teachers could not recall the month the program started in 2009.

22 out of 26 CPS programs had two groups of children enrolled. Of those two groups enrolled, the mean duration of exposure for students was 4.4 months. For most of these CPS programs, the second group commenced in October 2009 and was still underway at the time of the data collection.

In the follow-up informal interviews, the two CPS teachers who had enrolled two groups advised that they were told in training to enroll two groups because a number of children in the first group would transition to primary school.

HBP Quality Assessment
Core mother qualifications: The average age of the 28 core mothers was 40.61 and the age range was 20 to 58. All core mothers were female. 28 core mothers had been employed during the 12 months prior to their selection. Most (N=25) worked as a farmer for at least part of the year. For more information on professions and amount of time worked, please see Appendix B. At the time of the interview, 18 core mothers were working the same amount as they had previously and 10 were working slightly less than before. 8 core mothers had taken on additional employment since the HBP had commenced.

Twenty-seven of the 28 core mothers received pre-service training. They received an average of 39.64 hours of pre-service training (5.3 days, 7.48 hours per day). 21 of the 28 core mothers received additional training, however, only one core mother has attended more than one refresher course. All except two refresher courses were held in 2009.

The most frequently cited reason for selecting the core mother (70% of village chiefs) was the relatively high education level of the core mother. Interestingly, it is not a requirement of the FTI-design for the core mother to be of a particular education level. The mean level of education for core mothers was 5.68 year, the mode was 3 years of education and 64.3% the core mothers had at least 5 years of education.

There is a possibility that core mothers with lower education levels might be associated with poorer quality programs. In qualitative interviews, two core mothers noted that they believed that they did not completely understand the early childhood development concepts they had learnt in training and therefore had difficulty in teaching it the mothers. Additionally, one core mother reported to an enumerator that she believed she had difficulty encouraging parents to attend meetings because her education level was low. Another core mother shared that she didn’t really understand the concepts she was supposed to teach other mothers.

Interestingly, the education level of the core mother did not seem to be a concern for the parents with children enrolled in the program. No parents noted a problem with the core mother. No parent who chose not to enroll their child in the program did so because they thought the core mother was under-qualified. The only evidence to suggest that the parents thought the core mother might be under-qualified was that 3 parents out of 56 with children enrolled in the program believed the program would be improved if more substantial knowledge about ECD was imparted during the meetings.

Based on data collected for this monitoring evaluation, it appears core mothers have received less training than originally intended. 15 out of 32 village chiefs thought the core mother needed more training. 10 of these village chiefs said this was most important improvement needed to be made to the program. 10 core mothers also believed they needed more training.

Core mother remuneration, motivation and satisfaction: Remuneration was not a significant issue for the majority of core mothers. 25% or 7 core mothers requested a stipend. This is less than the number who requested more training, more resources and snacks for meetings. 1 program was terminated because the core mother wasn’t paid.

With regards to motivation and satisfaction, 26 of the 28 core mothers were somewhat happy or very happy to be the core mother. Most core mothers reported a commitment to childcare work. 26 of the 28 core mothers believed best thing about the program was that the children would have more opportunities in the future. 8 thought the best thing about the program was that children would be more prepared for primary school and 6 thought the children were more disciplined and respectful.

Parent awareness and engagement in the program: Based on the surveys conducted with parents, it could be concluded that there is a general lack of awareness of the program and its benefits. Additionally, amongst parents who did have children enrolled in the HBP, engagement in the program seemed low.
Of the 131 parents who did not enroll their child in the program, 101 simply didn't know about it. Of the 30 who knew about the program and had chosen not to enroll their child, 23.3% noted that they had not received sufficient information about the program. Of those who were not given an opportunity to enroll their child in the program, 56.3% said that they were not told about the program at the time of enrollment.

Of the 47 parents that had children enrolled in the program, 41 were told about the importance of the program and ECD when they were first advised of the program. However, 10% of the parents believed they didn't know enough about the program to comment on what they liked best about it and 57% didn't know how the program could be improved. On two occasions, enumerators reported circumstances where the core mother would say that a particular mother was enrolled. However, when the mother was asked directly, she said she didn't know about the program.

Notably, during the informal interviews, two core mothers who were holding meetings regularly and reported high attendance rates were connected to the village leadership in some way – one was a deputy village leader, the other was the daughter of the village chief.

**Intensity of exposure and program structure:** As mentioned earlier in this report, the original FTI-design of the HBP involved monthly meetings with children and parents where information on parenting and ECCD is shared by a core mother. Ideally, core mothers would lead groups of 3-5 mothers known as “group leaders” who then lead a further 3-5 mothers each. However, the results of the monitoring evaluation suggest significant variation between programs both in terms of intensity of exposure and program structure.

The core mother met with all the mothers in 27 programs. Of the 27 programs that met with the core mother formally, only eight met at least monthly. 13 core mothers had only met with the all the mothers once or twice since the program commenced. The remaining 5 programs involved meetings with the mother once every two months. Of the 47 parents who had children enrolled in the program, 33 had meetings with the core mother, 10 had not and 4 didn't know if the core mother had held meetings or not. 11 village chiefs believed that the core mother needed to have more regular meetings with the mother’s in the village.

Not all the programs had group leaders (n=27) and on a number of occasions, core mothers noted during the interview that they were not clear of what the role of the group leader was. 14 core mothers held separate meetings with the group leaders. The regularity of these meetings varied greatly between programs, 5 core mothers had met with group leaders once or twice since the program commenced, 1 core mother met with group leaders once every two months, 5 met with group leaders once a month and 3 met every two weeks.

Only 9 programs had group leaders that held separate meetings with mothers in their group. 18 parents interviewed who were enrolled in the program said they had a group leader, 12 said that they didn't and 17 didn't know.

Table one summarizes how many times mothers enrolled in the program met the core mother and/or the group leader overall.

Further, based on informal interviews and notes made by enumerators’ during interviews with stakeholders, program structure varied even more than these survey results might suggest. In one village, there were 2 core mothers, the head core mother and the assistant core mother. The head core mother was told during training to have an assistant core mother to help with the administrative side of program implementation (such as taking the roll at meetings etc). The assistant core mother did not attend training. As the head core mother lives a big village, she has held 3 sessions in different parts of the village during which she introduced ECD concepts. She had since held two follow-up sessions with two of the “groups” to check progress of children. Group
leaders had held one meeting with their group of mothers to follow-up on what the core mother had taught them. The core mother reported that she was not advised to set up three different groups in training but thought it was appropriate given the size of the village. In another village, an enumerator reported that while the core mother trained group leaders, group leaders worked with children directly rather than with the mothers and children.

Table 1: The total number of times mothers enrolled in the program have either met a core mother

<table>
<thead>
<tr>
<th>Total times mothers have met</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>1</td>
<td>2.8</td>
<td>3.6</td>
<td>3.6</td>
</tr>
<tr>
<td>Once or twice since the program commenced</td>
<td>10</td>
<td>27.8</td>
<td>35.7</td>
<td>39.3</td>
</tr>
<tr>
<td>Once every two months</td>
<td>4</td>
<td>11.1</td>
<td>14.3</td>
<td>53.6</td>
</tr>
<tr>
<td>Once a month</td>
<td>10</td>
<td>27.8</td>
<td>35.7</td>
<td>89.3</td>
</tr>
<tr>
<td>Once every two weeks</td>
<td>2</td>
<td>5.6</td>
<td>7.1</td>
<td>96.4</td>
</tr>
<tr>
<td>Once a week</td>
<td>1</td>
<td>2.8</td>
<td>3.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>77.8</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Missing System</td>
<td>8</td>
<td>22.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>36</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The reported program start date varied. According to the core mothers interviewed, all 27 programs commenced in 2009 and one program commenced in August 2008. 11 started in March 2009. Four core mothers could not recall the month the program started. The last program to commence was in December 2009.

16 programs had two groups of children enrolled and 12 had only enrolled one group. In an informal follow-up interview with a core mother, she advised that she was told to enroll two groups in training because a number of children in the first group were expected to transition to primary school. In those villages that had enrolled two groups, the mean duration of exposure for the first group was 8.5 months. At the time of the survey, all second groups were ongoing. The start and end for the first group and start date for the second group varied enormously between programs.

**Curriculum used:** Based on reports from the core mother, meetings with mothers involved discussions that promoted integrated approaches including health, nutrition and stimulation/early learning. Specifically, 20 discussed social-personal development, 18 discussed communication, 15 discussed sanitation and 14 discussed cognitive development. Notably, only 5 discussed fine motor development and 2 gross motor development.

Additionally, most programs convey messages in a hands-on and direct fashion during the sessions. Mothers brought their children to meetings with the core mother in all villages. 18 core mothers demonstrated activities and early childhood development concepts with the children. The majority (70.6%) of these demonstrations involved problem solving activities and communication development.

**Control Villages**
11 of the 31 control villages had at least one ECD program in the village but only 2 had an early childhood education program. A further 2 village chiefs claimed that children in their village were attending CPS in another village. One village chief estimated that there were somewhere between 1 and 10 children attending the CPS, the second village chief believed that 40+ children in his village was attending the CPS. No village chiefs believed that any children in their village were attending the HBP in another village.

**Deviations From Original FTI-design**

Treatment and Non-treatment villages included in the Impact Evaluation of the FTI-supported ECCD Interventions not receiving ECCD services, or receiving the wrong kind of ECCD services

<table>
<thead>
<tr>
<th>Province</th>
<th>District</th>
<th>Commune</th>
<th>Village</th>
<th>Program (intended)</th>
<th>Program (actual)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Takeo</td>
<td>Tram Kak</td>
<td>Leay Bour</td>
<td>Ampil</td>
<td>Control</td>
<td>HBP</td>
</tr>
<tr>
<td>Takeo</td>
<td>Treang</td>
<td>Roneam</td>
<td>Thmei</td>
<td>Control</td>
<td>CPS</td>
</tr>
<tr>
<td>Takeo</td>
<td>Tram Kak</td>
<td>Popel</td>
<td>Trav Aem</td>
<td>CPS</td>
<td>None</td>
</tr>
<tr>
<td>Battambang</td>
<td>Kamrieng</td>
<td>Ta Krai</td>
<td>Sam Sip</td>
<td>HBP</td>
<td>HBP and CPS</td>
</tr>
</tbody>
</table>

**Community Preschool Programs**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Intended</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Start Date</td>
<td>October 2008</td>
<td>The program start date was delayed. According to the CPS teacher, most (N=20) started in May 2009 and 4 commenced in April 2009. Two CPS teachers could not recall the month the program started in 2009. The start date reported by village chiefs deviated from what the CPS teachers reported. While all village chiefs reported that the program commenced in 2009, the specific months ranged from March to December. 16 village chiefs could not recall the month the program commenced. This deviation in reported start date is most probably caused by issues with recall.</td>
</tr>
<tr>
<td>Number of children in each class</td>
<td>25-30</td>
<td>There was an average of 23.7 children in each class, therefore the classes were smaller than the original design entailed.</td>
</tr>
<tr>
<td>Class schedule</td>
<td>3hrs/day, 5days/wk</td>
<td>The reported average class length was 1 hour and 51 minutes, the observed class length was 1 hour and 37 minutes. This is shorter than the length originally intended. Ultimately, as MoEYS implemented the CPS programs, they maintained the 2-hour per day program that fit with the previous curriculum they used and created with UNICEF. However, classes (both reported and observed) are still shorter than 2-hours a day. All CPS teachers reported that the programs operated 5 days/wk.</td>
</tr>
<tr>
<td>School year</td>
<td>October-July</td>
<td>Due to delays with program start date, the program has not followed the originally planned school year, with most programs commencing in May 2009.</td>
</tr>
<tr>
<td>Pre-service training</td>
<td>70 hours of pre-service training (10 days, 7 hours per day).</td>
<td>24 of the 26 teachers had received an average of 70 hours of pre-service training. Two teachers had not received any training at all. It is likely, based on additional comments made by the CPS teacher during the interview,</td>
</tr>
</tbody>
</table>
that the two teachers who had not received pre-service training were replacements. It appears that there is no formal procedure to ensure that replacement CPS teachers receive pre-service training.

Refresher training

In 2009, 3 refresher courses lasting 5 days each were planned to be offered to CPS teachers. Because the school year started later in 2009, there were less refresher courses than normal. In 2010, there are 3 refresher courses planned, also 5 days long.

All 26 CPS teachers have attended refresher courses. They reported to have attended a mean of 4.6 additional training sessions, each lasting an average of 3.7 days and hours/day. There a number of possible explanations for this shortened refresher courses. Firstly, it could be that the courses where just shorter. Secondly, in separate interviews with a number of CPS teachers, they noted that they attended networking sessions with other CPS teachers in their district. Thus, it is possible that they confused this networking session with formal refresher courses.

Selection of the CPS teacher

Commune Council staff recruit a person who lives in the village where they will teach and who has completed at least a grade 5 education.

29 of the 32 village chiefs reported that the village leadership contributed to the selection of the CPS teacher. 25 noted that the Commune Council helped recruit the CPS teacher. On average, the CPS teachers had completed 7.62 years of education and 92.3% had at least 5 years education. In short, it appears that the selection of the CPS teacher is consistent with the original FTI-design.

Home Based Program

<table>
<thead>
<tr>
<th>Indicators</th>
<th>HBP Intended</th>
<th>HBP Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program start date</td>
<td>October 2008</td>
<td>The program start date was delayed. According to the core mothers interviewed, all 27 programs commenced in 2009 and one program commenced in 2008. However, it is unlikely that this program actually started in 2008 given training did not commence until 2009. 11 started in March 2009. Four core mothers could not recall the month the program started. The last program to commence was in December 2009.</td>
</tr>
<tr>
<td>Number of children enrolled in</td>
<td>18-25</td>
<td>Across all 28 programs, an average of 33 children were reported to be enrolled in the HBP program. Therefore, there were more children enrolled than intended. However, it is notable that the 5% trimmed mean for the number of children enrolled was 30 and the median was 28. This might be explained by the large number of children enrolled in villages in Takeo province. A number of core mothers in this province reported that they had been advised in training to enroll all children under 5 in the village. For example, in one village 130 children were enrolled in the program. This practice was not observed in the other three provinces.</td>
</tr>
<tr>
<td>program</td>
<td></td>
<td>Core mothers meet 1x/mo. Core mothers met with all the mothers enrolled in the program for 27 of the 28 programs. However, only eight held meetings at least once a month, suggesting this criteria has been poorly met.</td>
</tr>
<tr>
<td>Class schedule</td>
<td>Core mothers meet 1x/mo.</td>
<td>Core mothers met with all the mothers enrolled in the program for 27 of the 28 programs. However, only eight held meetings at least once a month, suggesting this criteria has been poorly met.</td>
</tr>
<tr>
<td>School year</td>
<td>Year round</td>
<td>There did not seem to be any consistency in the school year for the HBP. 14 programs had enrolled two groups of children but the start and end date of these groups varied considerably. 12 programs were year round.</td>
</tr>
<tr>
<td>Pre-service Training</td>
<td>Each core mother receives 42 hours of pre-service training</td>
<td>27 of the 28 core mothers received pre-service training. They received an average of 39.64 hours of pre-service training (5.3</td>
</tr>
</tbody>
</table>
Refresher Training

There were 4 refresher courses planned in 2009, lasting 5 days each. In 2010, there are also 4, 5-day long refresher courses planned. This indicator was poorly met. 21 of the 28 core mothers received additional training, however, only one core mother has attended more than one refresher course. The remaining 20 core mothers have only attended 1 refresher course. All except two refresher courses were held in 2009.

Selection of Core Mother

Commune Council staff recruit a mother in the community who knows many of the children and interacts well with them. According to village chiefs, the selection of the core mother was frequently a collaborative decision made between the village leadership and the commune council. In 28 of the 32 villages, the core mother was selected by a member of the village leadership. In 17 villages, the commune council contributed to the selection of the core mother and in 10 villages, the village woman representative had input into the decision.

The most frequently cited reason for selecting the core mother (32.8% of respondents) was of the relatively high education level of the core mother. The second most frequently cited reason (15.6%) was that the core mother had good character. Only 3.1% respondents noted that the core mother was selected because they were good with children. This suggests that this indicator was poorly met.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>UNICEF model</th>
<th>FTI model (as implemented)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPS teacher payment</td>
<td>Funding for CPS teacher salaries is provided from the UNICEF budget</td>
<td>Commune Councils have the responsibility of paying teacher salaries out of their budget from the government.</td>
</tr>
<tr>
<td>CPS venue</td>
<td>Funding for CPS venue is provided from the UNICEF budget</td>
<td>Under the original FTI-design, Commune Councils were responsible for constructing each CPS shelter out of their budget from the government. However, in reality, the space was donated by the villagers or the CPS teacher themselves.</td>
</tr>
<tr>
<td>Stipend for mothers</td>
<td>Funding for a stipend for the mothers to attend meetings with the core mother is provided from the UNICEF budget</td>
<td>No stipends are provided to mothers to attend meetings.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Indicators</th>
<th>SCN model</th>
<th>FTI model (as implemented)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HBP education model</td>
<td>Views HB as a supplement to FPS</td>
<td>Views HBP as an alternative education model</td>
</tr>
<tr>
<td>HBP programs are conducted in collaboration with a primary school and thus, these programs are able to tap into the existing parent and teacher networks attached to the school</td>
<td>HBP are implemented in villages that do not have a FPS and the level of support and resources available vary.</td>
<td></td>
</tr>
</tbody>
</table>
VII. Discussion

Community Preschool Program

It appears, based on the available literature, that the CPS in its current form could possibly yield an effect on child development outcomes. Based on the results of the Community Preschool Classroom Observation Checklist, it appears most CPS teachers implement a curriculum that focuses not only on cognitive and language skills, but also on the development of socio-emotional skills. This is consistent with Downer and Pianta’s (2006) analysis of NICD data that suggested that better social skills among young children contributed to higher achievement in a number of academic subjects. It also appears that commune councils and village chiefs have recruited teachers who have the basic elements associated with ECD staff quality. These include a committed to early child development and comparatively high education levels (Naudeau, Kataoka, Valerio, Neuman & Elder, in press). Additionally, the district and provincial government officials have provided them with frequent training (both pre-service and in-service). Most CPS have maintained group size and high adult-to-child ratios which is correlated with better overall quality of the program (NICHD Early Child Care Research Network, 1996).

However, the CPS program could be improved in a number of ways. All teachers need to receive regular stipends and be provided more opportunities for professional growth and networking. The length of classes needs to be increased so that children receive the recommended 15 hours or more of center-based ECD services per week. Additionally, research suggests that programs are most effective when complemented by an outreach program with parents. Therefore, teachers need to be encouraged to hold more regular meetings with parents to provide relevant information on how to nurture and promote their children’s development, including through proper nutrition and early stimulation activities. Additionally, is less likely that children who were only enrolled in the first group will benefit for the program given the literature suggests children need exposure to program for at least 9 months a year for it to yield a significant impact on child development outcomes.

Home Based Program

In some respects, based on the positive outcomes of a number of curriculum based learning programs currently underway (Naudeau, Kataoka, Valerio, Neuman & Elder, in press; Raikes, et al, 2006)), the HBP in its current form could have positive impact on the various child development outcomes. It appears that meetings are used to promote integrated approaches that include health, nutrition and stimulation/early learning. Additionally, most core mothers convey messages in a hands-on and direct fashion during the sessions by demonstrating activities with mother’s children.

However, it also appears implementation is inconsistent across programs. It is possible that a number of programs simply haven’t held enough meetings to reasonably expect a change in parental practices. The general lack of awareness of the program and the engagement of parents involved in the program is also of concern. The reason for the uneven implementation of the HBP is not clear, however, it could be explained by the lack of training or low education of the core mothers. Nonetheless, regardless of the reason, it is anticipated that the HBP will have an impact on child development outcomes in some villages but not in others.