Report III

RESEARCH STUDIES ON ECCE

Selected non-ICDS ECCE models: An analysis of features, costs and revenue

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Abstract

This section presents an analysis of various models of ECCE across the three states of Delhi, Odisha and Telangana, together with an analysis of their costs and revenues. The report is split into two sections: cost estimations and resource mobilisation. The first section presents a conceptual and analytical framework for a comprehensive analysis of the costs of various ECCE models in the country to arrive at alternative cost models. The second section highlights the range of funding sources available within these models and the various ways in which the raised resources are allocated for different expenditure heads.

The method for undertaking a comparative analysis of various ECCE models involved two steps: first, developing estimations of the total annual cost by taking monetary estimates of monetised and non-monetised processes and annualising capital investments taking into account opportunity costs for assets like land or buildings. A second step involved estimating capital expenditure and annual recurrent costs that do not include any non-monetised/opportunity cost. Similarly, an analysis of resources has been undertaken by first categorising the various kinds of resources drawn on by organisations followed by a cost-versus-resource analysis for each model.

Information regarding costs and resources were gathered using both primary and secondary sources. Primary sources included interaction with various stakeholders in the field using multiple tools like Focus Group Discussions, interviews, and observations. The secondary sources mainly included balance sheets and annual reports as provided by the respective organizations. (Find calculations in Annexure 4).

Altogether, the section provides insights into emerging lessons for funding of ECCE programmes in the country and advocates the need for a diverse set of cost models for diverse target groups and locations.

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1.1 Framework for understanding costs and revenue

As mentioned earlier, this is an indicative exercise to understand different kinds of costing that exists in the ECCE sector, argue for provisions with more realistic and differentiated costing norms and, if necessary even for diverse models, for publicly funded programmes. It is very clear from the analysis that the needs of various groups and locations are diverse and a unified and homogenous cost approach does not help. This analysis uses the costs of various models following different approaches and providing different kinds of services in varied locations to diverse target groups to understand the range that exists and to be able to make suggestions that allow for such in-built flexibility in contextually responsive ECCE models. In this process, these models themselves become representatives of diverse practices rather than one unique model. The name of the organisations whose costs and revenues are being analysed are kept anonymous. These have been referred to as a model that represents the approach and location (e.g., urban independent ECCE centre, rural pre-school and so on).

It is important to understand that the interventions are usually conceived or understood better in terms of either processes (what would happen there: teaching, playing, sleeping, eating, training, monitoring etc.) or components (what is needed there: physical space, facilities, support materials (curriculum, training facilities and materials; human resources - teacher, helper, manager, supervisor etc.), and not in terms of what are usually known as cost heads (e.g., salary, travel, rent, etc.). Therefore, it makes much more sense to understand the processes and components of the programme first followed by an understanding of the expenses involved and resources required. Some of these costs and resources may not be in the shape of monetary figures in certain cases (e.g., parents volunteering to teach at least once every week). These costs then need to be monetised using suitable assumptions to get an understanding of the entire cost.

Therefore, the first step was to make a matrix of the components/processes on one side and cost heads on the other and map the two in a matrix. Table 1 presents our framework for the cost estimates carried out for different ECCE models. This was followed by adapting the matrix for each of the models separately, taking the model-specific details into account. Annexure 2 provides the model-specific matrices.

The next step was to estimate the costs and revenue of respective models. We have undertaken three exercises for all models:

i. estimating the total annual costs by taking monetary estimates of non-monetised processes/contributions and by annualising the capital investments, including opportunity costs, wherever suitable.
ii. estimating the capital expenditure and annual recurrent expenses; this does not include any opportunity cost.
iii. estimating the annual revenue taking diverse sources into account; this does not include non-monetised inputs

This exercise is followed by a discussion of the implications of these cost patterns for public policy and finance. It is important to mention here that the cost estimation uses various reasonable assumptions for both monetisation and annualisation exercises and therefore there could be some minor deviation between the estimates and real costs. This could also happen because the cost and revenue-related information are sometimes collected through interviews and understanding of the processes of respective models rather than the account books, which were sometimes not accessible and which also sometimes did not include all the elements of the model that have cost implications. However, this does not have any significant implication for either comparative analysis or in terms of deriving inferences for the policy and costing of public programmes.

1.1.1. Methodology for cost estimates of the individual models

At the first stage of cost estimates, we have attempted to estimate 'total' annual per centre and per child costs for providing ECCE services taking both capital and recurrent costs into account. As mentioned earlier, this is to ensure that per child or per centre costs are not underestimates and include capital and non-monetised costs as well. However, that does not mean that these are the annual running costs – annual per-capita running expenditure may be lesser than this as that often does not take initial capital investments into account. In other words, this exercise is to estimate the actual economic costs and not the expenditure alone. Both normative and statistical analytical methods have been used for analysing data for costing exercises and for calculating per centre/per child cost. Most of the information on cost is collected through the use of multiple tools: management questionnaires, FGDs, interviews and income and expenditure sheets[1]. It is also assumed that capital asset costs are at current prices.

[1] See Annexure 1 for Tools.

Table 1 : Base framework of process/component – cost relationship

Processes / components	**Cost heads**						
	Rent / land – building	Capital goods facilities (furniture/ others	Salary	Consumable materials (physical) and nutrition and auxiliary facilities	Materials (teaching learning)	Travel	Misc.
Teaching	Building/ Rooms	Desks, etc. (if relevant for the approach)	Teachers salary		Teaching learning materials		
Playing	playground			Play materials			
Sleeping	Space*	bedding		Food items			
Eating	Space*						
Health				Auxiliary services			
Teacher training**	Space*		Trainers remuneration		Training materials	Travel of teachers /trainers	
Monitoring			Salary / remuneration			Travel of teachers /trainers	
Managing	Space**	Furniture	Salary			Travel to headquarters, etc.	
Community mobilisation**			Salary	Food items	Training materials	Travel to workshop place	
* if separate from teaching-learning area							
**depending on the approach the model follows							

1.1.2 Annualising the capital costs

In general, an estimation of annual value of capital cost is difficult because the capital is paid in one or two years' time, but the yields are spread over a much longer period. So, if we take the entire capital expenses, it would inflate the cost of the model in the initial period. If the assets are rented, then the annual rent can be used to represent the value of the capital resource used during the year. However, in our analysis of some models, capital assets like land and building are not rented and therefore some estimates are required for the annual value of used capital. To resolve this, we estimated imputed rent which measures the annual value of the amount of capital used up each year and used this to arrive at total annual costs of respective models.

For calculating rental value of capital investments, rate of depreciation and interest rates are estimated first. The interest rates have been used to estimate the opportunity cost, which refers to the alternative possible use of the asset. In many cases, assets like land and building are pre-existing and donated by the community, government, or someone else but these buildings and land may have had alternative usage and the decision to build or use it for a particular purpose may mean the sacrifice of an opportunity to build or use it for something else. In such cases, we have used interest rate plus rate of deprecation for calculating the rent value of assets (land and building). We have used interest rates that could have been earned through alternative usage of the same asset to be equivalent to bank rate of Reserve Bank of India on first class bills of exchange (6% per annum, 2017); based on assumption that this is modest and reasonable. For assets that have been created just for that purpose, only deprecation rate is considered for calculating the rental value of the assets as one may already be paying interest on loans taken for that purpose.

The rate of depreciation is a much-disputed item. Depreciation depends upon the life span of the asset. For the purposes of this study, the working life of a permanent and semi-permanent building is assumed to be 50 years and that of the computer and equipment five years. The life of all other assets is assumed to be 10 years. For calculating the rates of depreciation, the straight line method is used which assumes equal rates for each year. This may be a simple assumption and the reality may be a little different but it suits the needs of the present analysis.

Table 2: Parameters used in for calculation of rental value

Component	Life Span Period	Depreciation Rate
Building	50	2
Furniture and fixtures	10	10
Vehicles	10	10
Computer and equipment	5	20

Others	10	10

1.1.3 Recurrent Costs taking non-monetised processes into account

The recurring costs in this analysis consists of the sum total of six different components viz, i) Infrastructure, space and resources (either given or imputed, as explained above); ii) Salaries (Teachers/Caregivers/ Staff); iii) Nutrition and auxiliary services; iv) Learning material and curriculum development; v) Teacher/Other trainings vi) Parent/Community-centred practices. After estimating the annual current expenditure, per centre/per child, the annual cost has been arrived at by dividing the total cost of the programme by total number of centres/children under that particular model. Monetisation of some non-monetised practices makes reasonable assumptions, listed in Annexure 3.

For estimating per centre or per child cost for composite institutions that provide services for non-ECCE age groups or classes, each institution is divided into the number of classes it offers and for the costs of the components that are used by all but no clear divisions are available, the annual amount for that component is divided by the number of classes first. Then that amount is multiplied by the number of classes that the ECCE services account for, as explained below. For instance, if the centre caters to students from pre-primary to primary, then it means there are eight classes in the centre (three for pre-primary and five for primary), and the annual cost of that component would be first divided by eight and then multiplied by three to arrive at the annual cost for the ECCE stage.

For calculating ECCE centre/pre-school cost:

$$\frac{\text{Total Cost on Recurring Component (including imputed Rent)}}{\text{Total No.of Classes in the Centre/School}} * \text{Total No. of Classes under ECCE Centre}$$

Annexure 3 provides the assumptions and estimation of each component of all the models.

1.2 Features and Cost Estimates for different models

This section presents a comparative analysis of nine non-ICDS models that we studied. Table 3 describes the models, their locations, management and focus. The abbreviations given in the table are used henceforth to refer to the respective models. Before going to the cost analysis, we briefly present here the major features of the models. This would help us in viewing the cost analysis from the perspective of the context in which it is operational and the approach it follows.

Table 3: Abbreviation, model, type and management

SI.No	Abbreviation	Model	Type	Management
1	UPCS	Urban programme involving community stakeholders	Child and community-focused	NGO
2	CUSP (1)	Composite urban school with pre-primary sections	Child-focused	NGO
3	CUSP (2)	Composite urban school with pre-primary sections	Child-focused	NGO
4	CBCDC	Rural community-based child development centres	Child and community-focused	NGO
5	UBM	Urban balwadi model	Child and parent-focused	NGO
6	UCM	Urban crèche Model	Child and parent-focused	NGO
7	SSUP	State University supported urban pre-school programme attached to a university (funded by the state government through the university)	Child and parent-focused	Public
8	LUPS	Low-cost urban with pre-primary sections	Child-focused	Private
9	UPPS	Urban pre-school+ primary school model	Child and parent-focused	NGO

1.2.1 Main features of the models

Urban Programme involving Community stakeholders (UPCS)

The NGO is registered as a society under the Societies Registration Act 1860. It started in Delhi in 1969 at a construction site at Rajghat and spread gradually to other such sites in Delhi as well as in Mumbai and Pune. Recently, it has also been identified as a technical resource by the MWCD under the restructured and strengthened ICDS programme to assist with attaining the specific objective of converting five per cent of all AWCs into anganwadi cum crèche centres. The larger objective of the organisation is to provide good quality day care services based on the basic principles of child development and to cater to working women from some of the most marginalised communities who do not receive these benefits from any other source.

Sections in School

Each centre run by them is divided into three sections: crèche for 0-3 year olds, balwadi for 4-5 year olds and bridge courses for 6-12 year olds. There were a total of around 70 children enrolled.

Teacher Qualification and Training

While the crèche workers were Class V pass and the balwadi and bridge course workers were Class XII pass, the process of training is given more emphasis rather than qualifications. For higher positions, experience, knowledge and passion for the field are accorded greater importance.

Physical Infrastructure and Space

The norms with respect to the crèche layout are fixed with respect to accessibility, hygiene and cleanliness, structure of building and the number as well as size of the rooms, with centres aiming to provide a room each for the crèche, balwadi, bridge course, along with toilets, a kitchen, a storage room, cleaning area and open space. The timings of the centre are from nine am to five pm for six days a week. It was observed that while the crèche room was 25 ft X 25ft, the rooms for the balwadi and bridge course were smaller – around 12 ft x 12 ft, with one window, one fan, one tube light and a cooler. There was not much room for designated activity corners.

Curricular material and pedagogy

Both the crèche and balwadi had colourful wall displays made by teachers and some work by students. The learning materials at the balwadi included a sand pit, plastic blocks, puzzles, crayons, paint, paper, coloured paper, picture cards, mirror, strainer, strings, beaded strings, slate, chalks, blackboard, picture blocks, stones, wooden pieces, plastic balls, cloth balls, skipping rope, finger puppets, picture posters, printed posters, stuffed dolls, hats, pieces of cardboard to be strung, books (25-30 books in Hindi), worksheets, chart paper, combs and hair oil. The learning materials in the crèche included plastic toys, plastic cars, plastic rings, plastic slide, mini plastic scooters, *dhols,* picture posters, printed posters, balls, picture books, paper, crayons, chart paper etc. The non-curricular material included bibs, handkerchiefs, cradles, towels and cleaning equipment.

Only Hindi is used for teaching and all interaction at all centres, while the subjects taught are Hindi and Mathematics. There are often children from non-Hindi speaking states. According to the teacher, they manage to interact with them through a combination of gestures, signs and basic words and the children are quick learners of Hindi since they are young.

The focus areas in crèches are care and nurturing along with conducting activities for developing fine and gross motor skills, free play, songs and rhymes. The balwadi follows a slightly more structured curriculum with activities that focus on developing pre-reading, pre-writing and number concepts. The curriculum is structured according to monthly themes and executed through a detailed daily

schedule planned ahead. The centre maintains registers – the *pathykram* (syllabus) for the balwadi and the *khelpitara* (activity/games guide) for the crèche which has the monthly themes along with the daily lesson plan with the details of each activity and time slots allotted to them. There is time allotted to discussion, story-telling, poetry recitation, physical exercise, colouring, free play and meals.

For children with special needs, the NGO's field team assists parents by way of providing references to the appropriate doctor/hospital and also through other forms of moral support, encouragement and practical help. A quarterly assessment of every child is carried out by the balwadi worker with the help of a checklist to record improvement in Hindi and Mathematics skills.

Auxiliary services

Health and nutrition form an integral part of this day-care model. For the health component, efforts are made to link the centre with a local PHC which provides nutrient supplements, de-worming tablets and immunisation, as per government rules/schemes, and one doctor per centre is hired on a voluntary basis to provide regular health check-ups. Nutrition is also provided at the centre through two meals and a snack for every child above the age of six months. Two hot cooked meals are provided – *rava/sooji kheer* or halwa (similar to broken wheat porridge) as breakfast and *khichdi* (cooked rice and dal) with seasonal vegetables for lunch, along with an evening snack of sprouts, nuts or biscuits. Each child is to get 500 calories and 12 grams of proteins per day. For children identified as malnourished, an egg and a banana are added to the daily diet. For severely malnourished children, a meal prepared with a healthy grain mixture consisting of rice, wheat and chickpea is provided at frequent intervals through the day.

Monitoring and supervision

The internal monitoring is carried out through the organisational hierarchy and by ensuring that all records and registers are maintained for attendance, financials, stock, nutrition, health, education, daily plans and community meetings and that each of these records is monitored and supervised. To strengthen the MIS, in 2016, enterprise resource planning (ERP) was launched and all transactions having fiscal implications were integrated. The purpose behind launching ERP is to have real time data from the field for effective implementation and also to use the data for research and advocacy. A new performance management system (PMS) was also introduced which utilises the balanced scorecard method since it provides a more transparent assessment procedure for employees.

Community interaction and parental satisfaction

Parents of the children attending the day care centre seemed satisfied with its functioning. The positive attributes mentioned by them were: the fact that no user fee was charged, that the centre provided a safe space for children for the entire day while the parents were out at work and that three good meals were provided to their children. The organization also works to mobilise the community around issues of ECCE, hygiene, cleanliness and financial management.

Models 2 (&3) Composite urban school with pre-primary sections (CUSP)

This NGO-run centre has two kinds of models for ECCE – formal schools and learning centres for children from the economically disadvantaged sections of the society. Since most of the centres are located in industrial areas, the target population in this case also includes families of migrant labourers and slum dwellers. The organisation has centres in Delhi, Uttarakhand, Uttar Pradesh and Haryana. The organisation began as a charity institution in 1977-79 to 'engage in a cause-related activity relevant to their faith but has now moved to a user fee-based model while also heavily relying on donations.

At present, there are two formal schools and 11 learning centres, the latter having been converted from formal schools after the RTE came into effect as they cannot comply with all the prescribed norms. The formal schools have classes from LKG up to Class X and the learning centres have classes from LKG till Class II.

Sections in school

The pre-school children are divided into two groups who sit in two separate classrooms: UKG and LKG on the basis of their age groups. Children between three and four years of age are in LKG and children between four and five years of age are in UKG. Each age group is further divided into two sections 'A' and 'B' where a norm of 35 children per classroom is maintained.

Physical Infrastructure and space

With regards to infrastructure, all the classrooms were spacious, well-lit and ventilated with interactive charts and learning materials put up on the walls, and bulletin boards.

Curricular material and pedagogy

The classrooms have one blackboard and one smartboard. The smartboards (projector plus remote) have a pre-designed package of poems, rhymes and games as a creative technology-based TLM for UKG and LKG students developed by Educomp. A community library ('community' because it is run by volunteers and in-kind donations from individuals) is located in the learning centre that was observed for the study, with a large collection of toys, games and books. The library also has interactive material such as flash cards, building blocks, shapes, charts etc., that are often brought to classrooms to be used as teaching-learning resources.

No timetable is displayed on the walls but the daily schedule, as explained by the teachers, includes diverse activities. One UKG teacher shared, "We start with something light like colouring for LKG, and sounds and the alphabet for UKG. We then move on to conceptual things such as dots and lines and shapes and sizes. After lunch, we try to engage them with interactive tools such as games, puzzles, blocks, cards, etc. because they tend to feel sleepy after lunch." The biggest challenge as shared by the teachers was to keep the performance of all students at par. Since there are some age-inappropriate enrolments in classes and few slow learners, some students tend to lag behind. The teachers try to spend extra time with these children or stop them in corridors and spend some time talking with them to improve their conversational skills. The teachers personally do not prefer books but parents do not believe that something substantial is being taught without the use of books and hence they are forced to adopt books and assessment systems. The older teachers also use lesser TLM from the library as opposed to the younger teachers because they 'don't feel the need to do so often.'

Community interaction and parental satisfaction

The centres run by this organisation are embedded within the community since its inception in the 80s. A lot of community mobilisation was done initially, the need for which tapered off gradually because most families in the community were aware of the school. It was noted in a number of cases that parents chose this school over other schools in the vicinity because their children did not get admission into the private schools. Hence CUSP appeared to be their second choice with the private schools being the first.

Model 4 - Rural community-based child development centre (CBCDC)

The CBCDC model was established by the parent organisation in 1984 with the aim of empowering communities in the rural areas of Odisha through education and skill development. With ICDS being unable to reach out to remote pockets of Odisha, the children in the tribal pockets were unable to access any form of ECCE services. Given that the ICDS centres used the medium of the state language, the children from the tribal communities felt alienated, due to regional variations in mother tongue languages. Community-based child development centres came into picture with the aim to meet this challenge by setting up a two-fold model of home-based care and centre-based care in the tribal villages. It is a community-focused model, in the operational control of a non-governmental organisation. The intervention was started with 350 villages in 2007, with the international funding partner but is currently physically present in 32 villages, with most centres being handed over to the government gradually.

Sections in school

The number of enrolled students in the centre was 20, with equal number of boys and girls. The organisation practised the pupil-teacher ratio of 25-18:1, across all the 32 centres spread across three districts. Inside the class, the students are grouped age-wise, i.e. three and four year olds and four to six year olds.

Physical infrastructure and space

The centre functioned as an independent establishment, out of a room of dimensions 20*22ft (440 sq.ft.), with a compound wall and play area (600 sqft), two windows, two doors, and a single light bulb. Although the centre was well-maintained and secure, it was inaccessible by road (5 kms. stretch of mud road).

Curricular material and pedagogy

Focusing primarily on indigenous communities and their empowerment, one of the pioneering interventions taken up was the introduction of the mother tongue-based, multilingual early childhood education programme and the construction of a contextualised pedagogic framework with help from funders. As the senior manager of the CBCDC programme informed us CBCDC "created a team who visited the communities, collected local songs/stories/riddles and took photos of local vegetables/animals/fruits, etc. On the basis of this, we developed story books, riddles, play cards and introduced them into the curriculum."[2]

[2]As said by a Senior Manager of the CBCDC programme on 06.08.2017 in Berhampur.

The centre was equipped with various wall displays and play materials, indoors and outdoors. The centre appeared to have all the resources required to address a child's cultural, social, emotional development as well as cognitive and thinking skills coupled with classroom activities such as story-telling, plays, dance and other forms of art. The play materials available in the centre are shape cards, puzzles, picture cards, storytelling cards, colouring books, crayons, etc. A number of locally made materials are also being used such as clay, mud, newspaper, sticks, pebbles and wire that have been painted and curated with the help of the organisation.

The community-based centre has been constructed with the support of the community. The centre is equipped with locally available play materials, kitchen gardens, classroom and toilets. All teaching-learning materials are designed by a special team trained by the organisation and revised every two years. These materials are designed in a manner that is locally embedded, so that the child is able to connect with the immediate surroundings.

For children in the age group of 3-4 years, the focus is on their grasp of the mother tongue. At the same time, for children between four and five years, the focus is on Odiya as well as the mother tongue. Some basic words are also taught in English, such as the parts of a human body, names of animals, birds, fruits, etc. This procedure is mainly to assist the children in getting acquainted with these languages prior to primary school. The progress of the child is tracked through quarterly assessments and report cards, where all activities done by the child are recorded.

The interaction between teacher and the children were well-coordinated. The teacher maintains a children's activity board that showcases the activities taken up by them. For children with special needs, the teacher is advised to devote extra attention to the child while the organisation tries to facilitate the linkages of various government schemes with the beneficiaries. All the students were able to confidently recite the songs and rhymes, and were quick to follow the instructions given by the teacher, such as standing in a circle or a straight line.

Auxiliary services

Home-based care focuses on children in the age group of 0-2 years, where the teachers selected from within the community were trained and oriented in neonatal and postnatal care, child and mother immunisation, early stimulations for cognitive development etc.

The centre incorporates nap time and nutrition (pulses, rice, eggs and *sattu*), with rations partially mobilised from the government under ICDS as well as from community contributions.

Monitoring and supervision

A supervisor is appointed by the organisation from nearby communities and put in charge of four centres. S/he is responsible for the teacher's performance. A monitoring committee comprised of community members and other stakeholders, such as the panchayat members, act as a local supervisory body. The teacher, selected from within the community, is supported by a community member on a rotation basis for non-teaching activities.

Community interaction and parental satisfaction

Community members are involved in monthly parent-teacher meetings as well as regular workshops organised to encourage community ownership of the intervention. The community pays a minimal amount of user fees, monthly as well as annually, which is used for maintenance and celebration of events in the centre. The community also contributes in terms of labour, foodgrains and space for conducting classes.

In conversation with the teacher, it seemed that because of a lack of comparison with other ECCE services, lack of access to ICDS centres and low education levels in the community, the parents may not be fully aware of the importance of the child's progress in the centre and are concerned mostly about the child's admission in succeeding government schools. Although while conducting focus group discussions with the parents, the parents expressed their contentment about the differences noticed in the child's behaviour when the child was directly sent to primary school earlier as against when the child experienced CBCDC as a stepping stone before primary school. The parents also spoke about how they would like to improve the infrastructure in the centres and improve supply of drinking water and foodgrains.

Models (5 & 6) Urban balwadi model (UBM) and Urban crèche model (UCM)

The UBM and the UCM models are being implemented by a non-governmental organisation working in the urban spaces of Bhubaneshwar for advancing opportunities available to marginalised children through education and vocational training.

Urban balwadi model (UBM)

The UBM Model comprises of balwadi centres (play schools) for children between three and six years, with a child- and parent-focused framework. The centre is a well-established ECCE centre, initiated a decade ago.

Due to a reduction in the flow of funds from donors, several aspects of the model were changed within the short span of a year, such as discontinuing the provision of meals, lowering of teachers' salaries based on user fees provided by parents and lesser overall maintenance of the centres. The parent organisation makes a one-time investment per centre for procurement of play materials annually, other than which all other expenses are borne through community contributions and donations.

Sections in school

The students in the centre are grouped age-wise i.e. three and four year olds and four to six year olds. The initial plan of the parent organisation was to accommodate 300 children across 12 centres. But due to the introduction of user fees as a very recent step, the number of children has remained at 240. Across the 12 centres, the pupil teacher ratio (PTR) norm maintained is 15:1.

Physical infrastructure and space

In terms of space and infrastructure, the centre was an independent shed within community premises, 25 x 18 sq ft. It had a single fan and light bulb installed and no compound wall. However, the centre had an attached playground. This playground seemed to be locked even during the day, as it was being misused by some community members. In the UBM centre, the electricity charges are taken care of by the community while annual renovation is undertaken by the parent organisation.

Curricular material and pedagogy

The curriculum followed in the UBM is the standard set of books followed in Odisha for all pre-school children. The play materials, indoors and outdoors, are mostly provided by the organisation from their other education programmes. The organisation uses ICDS guidelines and consultations by their in-house staff on the pedagogy followed in the UBM centres. The centre used exercise books[3], charts, playing cards and counting material as curricula.

[3]Number of books for reading and writing: Odiya -1, Hindi -1, English -2. Number of books for counting: Odiya -1.

Community interaction and parental satisfaction

Challenges faced increased over the last one year given the change from free education to user fees. Being an urban setting, parents have the capacity to pay relatively higher user fees for the maintenance of the teachers and the centres. Thus, in a way, the teachers become directly answerable to the community for their performance, which gets reviewed during parent-teacher meetings held monthly.

In conversation with parents, it became clear that the rationale for choosing the UBM was the poor functioning of the AWCs in the area, the discrimination among children on the basis of class and teacher incompetence resulting in lower levels of learning. One of the criteria used by parents to measure the progress of the child was the grasp over the English language, which they believe was a main outcome of the UBM. Apart from the user fees, a number of in-pocket expenses are also incurred by parents, such as on stationery. An interesting fact noted was the prevalence of private tutoring by the UBM teachers after school hours since parents felt the need to have a more focused learning for the children (in groups of three), apart from attending the centre regularly. Similarly, it was also noted that in the previous months, there had been dropouts due to children shifting to private schools. With no monitoring of the child's progress at school, the child's learning levels were unknown to the parents.

Urban Crèche model (UCM)

The urban crèche model (UCM) is a day care centre for the children of working and ailing mothers in the slums. The UCM functions under a partnership between the State Welfare Board (RGNCS) and the parent organisation based on a 90:10 funding ratio respectively. Due to inconsistencies in transfer of grants from the state, the parent organisation has been unable to make necessary improvements in the UCM.

Sections in school

Children are divided into two age groups - six months to three year olds and four to six year olds, with a total of 24 children. The PTR followed is 25:1, as specified in State Welfare Board norms.

Physical infrastructure and space

The centre is spread over 375 square feet and functions out of a single classroom with classes conducted in a circular seating arrangement on mats. It is established as an independent house (a tin shed), with the same classroom space being used for storage as well as a kitchen and a small balcony. There is no compound.

Curricular material and pedagogy

The UCM curriculum is developed in-house in consultation with experts following the ECCE guidelines on activity-based learning. Although the centre had a number of displays and charts, they were considerably faded and unkempt and not visually stimulating.

The activities carried out in the centre as per the timetable include sessions of hygiene, prayer time, counting, learning the alphabet, storytelling, rhymes and home visits. In conversation with teachers, the UCM seemed to be in need of improvements in a number of areas such as dearth of play materials, updating TLM, capacity-building of teaching staff, better maintenance of the AWC, need for growth monitoring and improved remuneration for the teaching staff.

Auxiliary services

As per the RGNCS norms, nutrition, frequent health checkups and home visits are provided.

Monitoring and supervision

For monitoring, a government-appointed supervisor is in charge of the functioning of the crèche. However, it was felt by the teachers that stronger supervision was required.

Community interaction and parental satisfaction

The classroom didn't appear to be child-friendly in nature due to lack of space and poor infrastructure which reverberated in discussions held with parents where their concerns included the need for better quality and quantity of meals, provision of improved play and learning materials.

Model 7. State government-supported, urban pre-school programme attached to university (SSUP)

This is a well-established, stand-alone lab school started 20 years ago and part of a state government university. It mostly caters to middle income groups like salespersons, service engineers and managers in the hotel industry. The staff of the university in charge of running this school has also provided support and training to ICDS.

Sections in school

The pre-school has a crèche, two nursery classes and one LKG and one UKG. There are seven children in the crèche currently, 26 students in one of the nursery classes, 27 in LKG and 15 in UKG. However, each class has the capacity to accommodate 25 children, and the PTR that is normally maintained is 25:1.

Teacher training and qualifications

There are a total of five teachers to manage the pre-school who are supervised by an assistant professor of the university. While teachers varied in their qualifications, all of them had completed a self-paid pre-primary training certificate programme conducted by the university, which is a mandatory requirement for appointment. The teachers receive an 11-month contract which has to be renewed every academic year with the university and are not salaried staff of the university. Teachers are also assisted in making of TLM and lessons by students of the university.

Physical infrastructure and space

In terms of infrastructure, the pre-school has no constraints as it is located within a university and is spread over a space of 4000 sq ft. The nursery class aims to provide a space of 15 sq ft per child and the nursery and crèche observed was about 900-1000 sq ft. The crèche and nursery were long, open spaces arranged as activity corners. The nursery has a few tables arranged in the front of the class in a circular format. The back end of the nursery has beds and the sides have cupboards (above a child's height) with different kind of play material such as blocks and puppets and are marked as respective corners. Further, between the tables in front and the beds at the back there is open space where children could work on the floor. There was also a model house through which children could walk in and walk out. On one side of the class also there was equipment for taking height and weight of children. The nursery was well ventilated with five windows spaced out on one side of the room, six tube-lights and four fans.

The LKG class and UKG were slightly smaller at about 300-400 sq ft. The LKG and UKG were organised like typical classrooms with benches and tables facing the teacher and the blackboard. The class was well equipped with materials, the children are provided with a desk and a chair, models are displayed, charts are hung all over the walls. The rooms were well-ventilated with windows and two doors at both ends of the class.

Separate (and adequate) play areas exist for the nursery and LKG/UKG sections (again with an allocation of 15 sq ft per child). The outdoor play area has a sand pit, merry-go-rounds, seesaws, slides, monkey bars and also a water play pool (which we could not see). A total of eight toilets were available for the entire pre-school section.

Nutrition is not provided as part of the ECCE programme but the crèche has an attached kitchen area with a refrigerator and microwave and also had a washing machine. There were also provisions of beds and mattresses available for the crèche and nursery classes.

Curricular material and pedagogy

Curriculum is developed in-house following ECCE principles and pedagogy is activity-based learning. The timetable for nursery showed that the daily activities included outdoor activity (water play and sand play), informal talk, creative activity (cutting, pasting, crayoning, printing, collage) and indoor activity (story, blocks corner, puzzles and beads)

In LKG, the subjects include Mathematics, English, General Knowledge and Drawing and UKG children are introduced to English, Mathematics, EVS and language (Hindi). The teacher explained that the day is organised as follows: periods are 20-30 minutes; they start with outdoor play; followed by prayers and attendance; the first period consists of Hindi, English, Maths or EVS. First, a concept is introduced orally. Only one letter is done in a day; this is also introduced in their mother tongue. Then books and pencils are distributed and children write in their books. In the afternoons, the Exponential Learning Programme (ELP) students make them do various activities on different days: story telling with flash cards, rhymes, drawing and blocks.

The progress of the children is regularly monitored and quarterly, half yearly and annual tests/exams are conducted at regular intervals. The progress is identified with marks.

Community Iinteraction and parental satisfaction

The model includes parent education classes, conducted once in two months. These sessions are focused on parenting skills, techniques to raise children, how to engage children during holidays, behavioural problems, etc**.** Discussions with parents showed that the school had a good reputation in the community which is why they had enrolled their children here. Some of the strengths of the school identified by the parents were individual attention, a homely environment, the play way method and good engagement with the teachers. Classroom observations showed that children were happy and active and engaged in their activities of interest. The teachers were friendly, caring

and helpful, assisting children with things like putting on their shoes or taking their respective bags to go home. However, on the downside, infrastructure issues such as leaking roofs were observed in some classes.

Model 8. Low-cost urban composite school with pre-primary sections (LUPS)

The school is a part of a chain of three schools run by a newly established, private educational company in Hyderabad, started in 2013. The company acquires existing schools with initial investments drawn from 'angel' investors and through social venture capitalists. The school has a diverse clientele, with parental occupations ranging from university lecturers to vegetable vendors and support staff of the school.

Sections in school

The school has classes from nursery to Class X, with a total of 570 students. In the pre-primary section, there are a total of 131 students, with approximately equal number of girls and boys. The school also has an inclusion policy and takes in children who may be differently abled. Special infrastructure and curricular provisions have been made for them. Across the three schools managed by the private company, the norm for PTR maintained is 1:20 for the nursery section (extendable up to 25) and 1:30 for LKG and UKG, not exceeding 35 students per class. The students are grouped age-wise, with the nursery having an intake of students between 2.5-3.5 years; LKG between 3.5 - 4.5 years and UKG between 4.5 years-5.5 years.

Teacher training and qualifications

Teachers have a minimum qualification of a Bachelor's degree. One helper is also provided for each class. Training for teachers is an ongoing process and in the initial period, teachers are hand-held for a week continuously within the classroom. In addition, they also receive training from external content providers such as Astragen and Karadi Path.

Physical infrastructure and space

The school visited was located in a single building, without a compound wall or playground. While a playground has been hired at some distance from the school, it cannot be used for the nursery section due to the distance. Classrooms were typically about 300 sq ft and there were clean well-maintained toilets. Nursery classrooms are bigger and have a few round tables and chairs on one side, while the rest of the room can be used for other activity. The classroom was well- ventilated

and had two windows and the approach to the classroom was safe. The LKG and UKG are arranged as conventional classrooms with rows of desks and benches. The school also has a computer lab, science lab and library.

Curricular material and pedagogy

The school follows the state board curriculum. At the pre-primary level, the focus is more on routines and getting children adjusted to school. However, in the later, pre-primary years, importance is given to writing as parents demand it. An integrated approach is also adopted with lessons cutting across topics in Mathematics, English and EVS, while also incorporating cognitive skills training and stimulation of gross and fine motor abilities.

There were several handmade charts and posters and danglers on letters, numbers, animals, shapes, fruits, vegetables, colours, etc. in the classroom, as well as material such as puzzle boards, beads, flash cards, blocks and crayons. The teachers said that other material for fine motor skills such as for cutting and sticking are made by them according to the lesson plans. For the LKG and UKG, additional curricular input is drawn from content providers such as Astragen, Butterfly Fields and Karadi Path.

Teachers seemed friendly, were able to use non-threatening/non-violent ways of gaining children's attention/correcting behaviour (e.g., they use strategies like suddenly calling out for children to alternate between loud claps and soft claps by modulating their own voice). Teachers felt motivated working in the school. Children also seemed happy and were actively participating in familiar routines (e.g., saying Jai Hind at the end of the day, etc.).

Parental satisfaction

Parental involvement is minimal, with just one orientation programme and monthly meetings to inform parents about what will be done at school. The parents were happy with the quality of education, teachers, the fee structure and provisions for flexible payment of fees.

Model 9. Urban preschool and primary school model (UPPS)

The school is run by a social welfare organisation. It is a standalone lab school started in 1987 for students of PG Diploma in Early Childhood Care. Following a collaboration with an INGO and a state-

level resource for education, this centre was recognised as the State Resource Centre – Early Childhood Education (SRC-ECE) for Andhra Pradesh. The SRC-ECE is located in the same premises as the college though its budgets are completely separate from the college budgets. Initially, this was started free of cost for their own helpers' children, for the slum nearby and for the doctors and others looking for an alternative education model. However, since the centre did not have books and used play way methods, in the first year itself, 11 of 20 parents removed their children feeling this was not the way education should be provided to children.

Apart from running this school, the organisation has also extensively supported the ICDS, balwadis, Janshala programme, and other NGOs working on PSEn in the past. The organisation has been involved extensively in developing pre-school/ECCE curriculum for the state government and has engaged in several innovative projects such as radio-based education, bridge courses for tribal children transitioning from anganwadis to primary schools, etc. The success of this model relies on the resources and knowledge of the organisation and the partnerships they foster with experts in the field.

The lab school was initially started for the low income socio-economic group but since these parents did not like the approach of the school, now most children come from the 'educated class' (e.g., professors, engineers and doctors). Children also come from different states to the school. Free education is also given to five children who cannot afford education at all. Thus, they also have children of fruit vendors and autodrivers. The fee structure for different groups of children therefore also varies, as reported by the parents.

Sections in school

The school has classes from nursery to Class III. There is one nursery, 2 LKG, 2 UKG and 2 Class I sections and one each of Classes II and III. Currently, the school strength is 200, also their upper cut-off limit for enrolments. An attempt is made to maintain a PTR of 20:1.

Teacher training and qualifications

There is a total of 14 teaching staff and the qualification expected is Masters with at least a PG Diploma in Early Childhood Education. Training and feedback are provided to the teachers on a

weekly basis. In addition, they are also given an opportunity to attend external training programmes such as those conducted by the SCERT.

Physical infrastructure and space

The school is located within a university campus and is spread over 14,000 sq ft. Each classroom is about 330 sq ft and additionally there is an activity hall and lunch room. There is also a training room on the second floor, which has been used also train external candidates such as officials of the WCD. The classrooms are organised around a central courtyard which has some movable play items like jungle gyms, slides, etc. The nursery, LKG and UKG are arranged in a circular format and there is no furniture for these classes, exact small tables to work on activities for children.

Curricular material and pedagogy

SRC-ECE started focusing on curriculum development from 1990s. Prior to that, they did not have any specific curriculum. They developed a curriculum called Shishu Vikasa Karekram, which is a 10-month programme with a calendar, teacher resource book and manual for the teachers. The development of the curriculum was supported through a project by UNICEF. The curriculum was developed through several sets of consultation from people over the country. The curriculum contains a mix of play-based activities as well as a school readiness component. It was realised after using the play-based material and approach that the transition was still not smooth in the first levels after children had been taught through games and songs. Therefore, at least six weeks of school readiness is planned for before children enter Class I (this is eight weeks for tribal children, since they have to prepare in Gond, Telugu and an additional language, perhaps English. For Chenchus, this programme has been planned for 12 weeks).

Since the organisation has had a long history of supporting the preparation of curriculum and TLM for the government, many of these resources are used with their own children, like radio-based pre- and post-learning programmes, print material, cassettes with rhymes, songs and stories, learning kits. Children learn good habits as well as other academic activities.

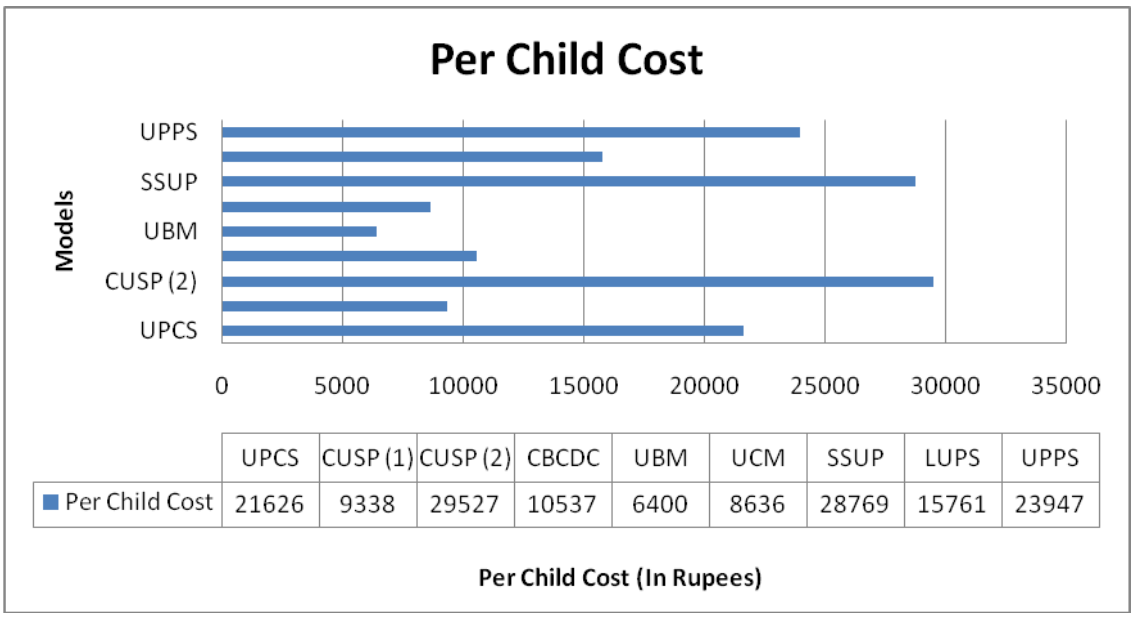
Parental satisfaction

The play way method used was appreciated by the parents as they felt that it did not burden the child. Monthly meetings are conducted with parents where they are advised about what areas to work on with their children.

1.2.2 Per child total annual cost

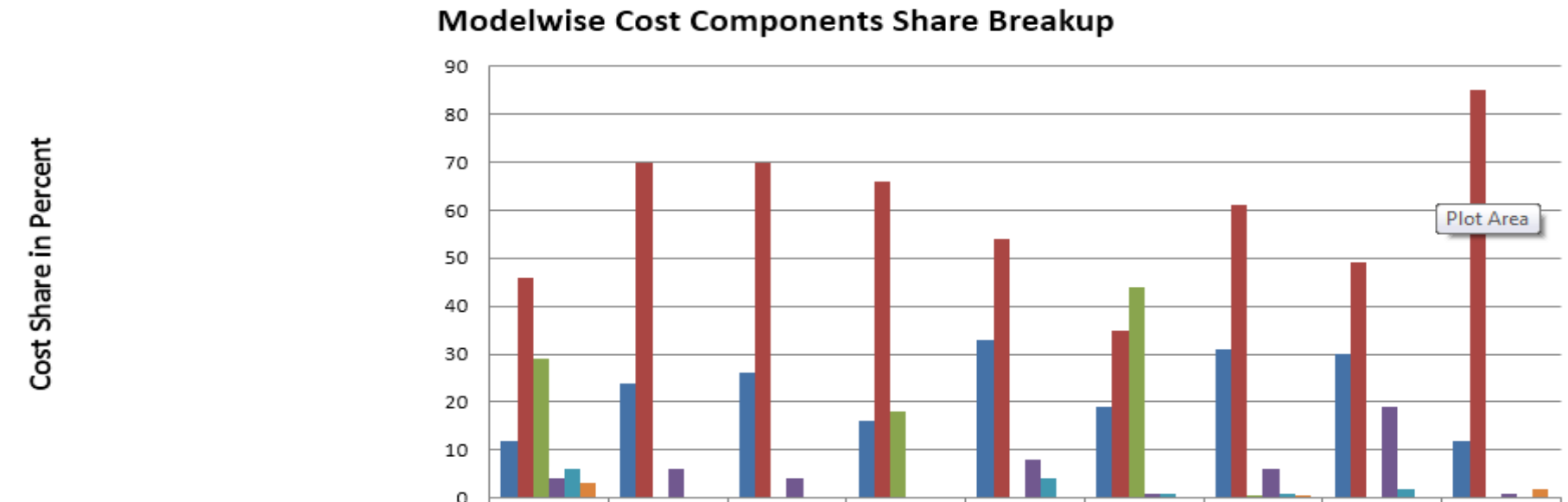
An estimation of total per child annual cost using the methodology described above shows wide variations among these models (Figure 1). To reiterate, these are not the annual running expenditures. In some ways, these are annual economic costs taking the value of capital as well alternative costs into account. The range varies from as low as Rs.6400 (UBM) and Rs.8636 (UCM) to as high as Rs. 29,527 (CUSP-2) and Rs. 28,769 (SSUP). While the salary component constitutes the largest share of annual cost in each of these models, their share varies and they are not necessarily the driver of the higher costs. The component driving the cost upwards varies from one model to another. While it is salary in case of UPPS, it is a combination of salary and infrastructure in the cases of CUSP-2 and SSUP, it is the cost of nutrition and auxiliary services that push the costs in case of UPCS (Figure 2).

Figure 1: Per child unit cost



	UPCS	CUSP (1)	CUSP (2)	CBCDC	UBM	UCM	SSUP	LUPS	UPPS
Per Child Cost	21626	9338	29527	10537	6400	8636	28769	15761	23947

Figure 2: Model wise Cost Component Share Breakup



	UPCS	CUPS 1	CUPS 2	CBCD	UBM	UCM	SSUP	LUPS	UUPS
Infrastructure, Space & Resources	12	24	26	16	33	19	31	30	12
Salaries (Teachers/Caregiver/ Staff)	46	70	70	66	54	35	61	49	85
Nutrition and Auxiliary Services	29	NP	NP	18	NP	44	0.6	NP	NP
Learning Material and Curriculum Development	4	6	4	DNA	8	1	6	19	1
Training	6	DNA	DNA	DNA	4	1	1	2	TCPS
Parent/Community centred Practices	3	DNA	DNA	DNA	CPOTS	CPOTS	0.4	NP	2

Abbreviations
NP- No Provision
DNA- Data not Available
CITS- Cost Included in Teachers Salary
TCPS- Training Component is Part of Teachers Salary

Table 4 : Cost Estimates for Identified Models (by cost heads)

(Amount in Rupees Per Annum Per centre)

Model	Infrastructure, Space & Resources	Salaries (Teachers/Caregiver/ Staff)	Nutrition and Auxiliary Services	Learning Material and Curriculum Development	Training	Parent/Community centred Practices	Total	No. of Students in ECCE Centre	Per Child Cost
UPCS	96292(12)	381534 (46)	238215(29)	32832(4)	52896(6)	20000 (3)	821796 (100)	38	21626
CUSP (1)	160604 (24)	442739 (70)	No Provision	50338 (6)	Data not Available	Data not Available	653681(100)	70	9338
CUSP (2)	546394 (26)	1451201 (70)	No Provision	69329 (4)	Data not Available	Data not Available	2066924 (100)	70	29527
CBCDC	24973 (16)	105000 (66)	28080(18)	Data Not Available	Data Not Available	Data Not Available	158053 (100)	15	10537
UBM	43810 (34)	68480(54)	No Provision	10000(8)	5700(4)	Cost included in Teachers Salary	127990 (100)	20	6400
UCM	40131 (19)	75075(35)	95600(44)	3000(1)	2100(1)	Cost included in Teachers Salary	215906 (100)	25	8636
SSUP	792560 (31)	1636986 (61)	17860 (0.6)	173100 (6)	43093 (1)	12000 (0.4)	2675599(100)	93	28769
LUPS	645105 (30)	1050251(49)	No Provision	429754 (19)	34154 (2)	No Provision	2159264(100)	137	15761
UPPS	312789 (12)	2249000 (85)	No Provision	20648 (1)	Training Component is part of salary	51776 (2)	2634213 (100)	110	23947

Note: the figures in the parentheses depict the percentage share of respective components for that model.

1.2.3 Analysis on the basis of the various cost components of the different models

A. Salaries

It is important to note that the salary component, the largest component of each of these models, varies not only in terms of the proportion of total cost that it covers but also in terms of the levels. Salaries are significantly higher in some models as compared to others and these differences exist at times even for cases where the qualifications levels are not very different (Table 5). The difference in salary is partly explained by locations (i.e., the salaries are high in cities as compared to that in peri-urban or smaller towns or villages), partly by the approach (i.e., decision to give not less than a particular level) and partly by the workload or the time the workers/instructors are expected to spend). Another variable that determined the total amounts spent on salaries included PTR, which also varied from one model to another (Table 5). A lower PTR means the requirement for the number of teachers is higher than in case of higher PTRs. The approach of the model in terms of training as well as supervision/monitoring in terms of provision for specific staff and their salaries also made a difference in terms of the size of the salary respective models had.

However, in general, the salaries are not high when compared to the salaries of regular teachers in schools or even in comparison with remuneration that AWCs receive. UPCS is an exception as it pays the highest among these models though the qualification requirements are lower. However, the work timings here are longer than in all other models. This points towards the fact that ECCE still remains seen largely an unprofessionalised job and the professionals in the sector perhaps remain unorganised.

B. Space, infrastructure and other physical facilities

Space, infrastructure and physical facilities occupy 12 to 34 percent of the annual total cost of different models. The estimates for the absolute amounts per centre for this head also varied significantly, this being as low as nearly Rs.25000 per annum to as high as nearly Rs.8 lakhs per annum. Four out of nine models have an annual cost on this head below one lakh per annum while for the remaining five models, this cost varies roughly between 1.5 to 8 lakhs. Among these five, this cost is high for two models: SSUP (about 8 lakhs) and LUPS (about 6.5 lakhs); while SSUP is the lab school for running professional courses on ECCE and is modelled accordingly, LUPS is the low-cost private school whose physical infrastructure serves as the main attraction for parents.

In addition to the size of space used for the classroom, sleeping and pay, etc. what becomes the most critical in determining the relative size for this component is, quite expectedly, the rate of land and building costs or the rent in respective cities/locations. The centres that are located in the middle of big cities spend much more on infrastructure. No clear trend emerges from the centre

being part of a larger setup, e.g., a CUSP (2) or just a standalone ECCE centre. The models with highest and the lowest annual cost for this head are both standalone ECCE centres, located in the middle of the urban centre and in a suburb respectively.

Table 5: ECCE centre instructor's salaries, qualifications and Teacher-pupil ratios

Models	Average indicative monthly gross salary of the worker	Whether annual increment exists for employees (yes/no)	Centre's timings	Teacher /workers' timings	Teacher/ worker's education and professional qualification (minimum)	Teacher pupil ratio (norm / average)	Whether provision for any social security (PF, gratuity, etc.) exists (Yes/no)
UPCS	14700	No	9am-5pm	9:00 am - 5:00 pm	8^{th} /10^{th} or 12^{th} Pass	1:12-30#	Yes
CUSP 1	7500	Yes	8:15 am - 12:30 pm	8:15 am - 2:15 pm	DIET/ NTT trained or graduation	01:35	Yes
CUSP 2	7500	Yes	8:15 am - 12:30 pm	8:15 am - 2:15 pm	DIET/ NTT trained or graduation	01:35	Yes
CBCDC	4500	Yes	7:30 am - 4:30 pm	7:30 am - 4:30 pm	No minimum educational qualification criteria, knowledge of mother tongue is considered important	01:15	No
UBM	2400	No*	9:00 am- 12:00 noon	8:30 am- 12:00 noon	12th Pass (Flexible)	01:15	No
UCM	3000	No*	9:00 am to 4:00 pm	9:00 am to 4:00 pm	12th Pass	01:25	No
SSUP	13000	Yes	9:30 am -12:30 pm	9:30 am-4:30 pm	Graduation	01:25	Yes
LUPS	7875	Yes	9:00 am-12:00 noon/3:00 pm**	9:00 am – 3:00 pm	Graduation	1:20-30##	Yes
UPPS	10800	Yes	9:00 am-12:00 noon/1:00pm ***	9:00 am – 3:30 pm	Post-graduation with a PG Diploma in Early childhood education	01:20	Yes

* Increments are offered but not annually butonce in four-five years; # 1:12 is the UCM classroom ratio and 1:30 is the balwadi classroom ratio

** 9:00am-12:00 noon -Nursery and 9:00am- 3:00 pm – LKG and UKG; ## 1:20 is the nursery classroom ratio and 1:30 is the LKG and UKG classrooms ratio

*** 9:00 am -12:00 noon – Nursery and 9:00am -1:00pm – LKG and UKG

Table 6: Space, Physical infrastructure and physical facilities in ECCE centres

Model	Per centre annual cost on space, infrastructure and physical facilities (Rs.)	Physical space used by one centre (in sq-feet)	Playground size used by ECCE children in one centre (in sq-feet)	Child-friendly furniture/ fixtures/facilities exists (Yes / no)
UPCS	96292	998	533	Yes
CUSP (1)	160604	600	1800	Yes
CUSP (2)	546394	600*	1800*	Yes*
CBCDC	24973	520	600	Yes
UBM	43810	450	1000	Yes
UCM	40131	400	1000	No
SSUP	792560	2000	2000	Yes
LUPS	645105	2538	1154	Yes
UPPS	312789	7000	Part of Physical Space	Yes

* Information is imputed using CUSP (1) data

C. Nutrition and auxiliary services

Only four of the nine models have a component of making provisions for nutrition and auxiliary (health check-up, etc.) services. Out of the four, one provides only auxiliary services and therefore this component covers less than one percent of the total annual cost. Of the remaining three, UCM is a standalone crèche and funded under the government programme of RGNS, and spends almost half of the total annual cost on this head. As mentioned earlier, nutrition appeared to be the main focus of this intervention, with the education component being relatively weak. The remaining two models, UPCS and CBCDC, where this component covers 29 and 18 percent of the total annual costs respectively, are both community-centred models serving children coming from marginalised communities, one in urban and one in a rural setting. This translates itself into an amount of only about Rs.6269.00 per child per year in case of UPCS and Rs.1872.00 per child per year for CBCDC. Nutrition is integral to these models and plays a very critical role in enrolment, retention and the learning of children.

D. Learning material and curriculum development

This component covers about one to 19 percent of the total annual costs, varying between four and 10 percent of total cost in four out of eight models for which we have the data. The high proportion of this component in the private ECCE model (LUPS), which spends 19 per cent of its annual cost on this component(nearly 4.3 lakhs per annum on one centre), can perhaps be attributed to the fact that they are using materials and services from external, corporate-based, content providers. Most of the remaining models make their own materials or use other resources developed/provided by NGOs and support agencies.

E. Training

Training accounts for between 1 to 7 per cent of total costs for the five models for which we have the data. For one model (UUPS), this cost is merged with salary and that in part could explain the high share of the salary component for this model (85).

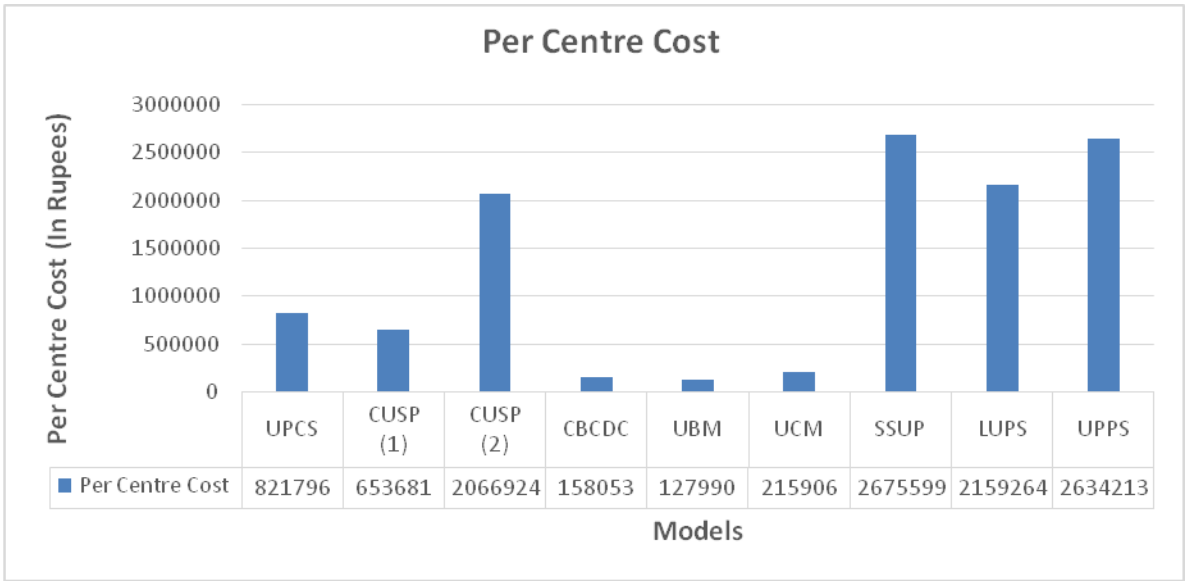
F. Parent/community-centred practices

Out of nine models, one model (private) had no such provision, two had included this in teachers' salary probably because teachers are responsible for community mobilisation and the data was not available for three models. The remaining three spent between 0.4 to 2 per cent of its total annual cost for one centre on this component.

1.2.4 'Total' annual per centre cost

Figure 3 shows that the pattern for the per centre and per child cost is the same. This means that despite some variations in the PTRs, salary levels and the space being used for the ECCE centres, the relative positioning of the models in terms of per centre cost and per child cost remain the same. However, it is possible that the number of centres a model has or the scale of the model also lead to certain externalities and impact the per-centre or per child cost. We explore this aspect at a later stage after discussing the revenue sources for the models.

Figure 3: Annual per centre cost



1.2.5 Capital and recurrent costs

We estimated annualised total cost of models to understand the total cost of respective models and to be able to take a comparative analysis. In order to understand the implications for scaling up and also the role that the size of scale of the intervention plays in either increasing or decreasing the cost

of a model, we also need to separate the capital and recurrent cost. Tables 7 and 8 provide total capital and annual recurrent cost estimates respectively. We have included initial investment on curriculum development and one-time induction training as capital costs to argue that these are essential investments for starting an ECCE centre whether as part of a composite school or as a standalone institution, even though the information was not available for most models.

The total capital cost on land and building is expectedly determined by the approach and target group (stable population, migrants, moving – e.g. – construction workers, etc.), nature of intervention (community and children-focused, only child-focused, etc.), primary purpose (to serve as a learning lab to develop and evolve 'good schooling' practices, to make profit, to serve unserved,low-income household children while also allowing mothers to work, to orient parents on good parenting and provide children space for good care and education), location (urban, semi-urban, rural) and perhaps also the size of funds that could be accessed. The model that primarily serves children of construction workers does not create any assets as their sites keep changing (UPCS). Other community-based or community-focussed organisations have incurred relatively modest investments (CBCDC, UBM, UCM). On the other hand, models that are part of larger initiatives - either composite schools or social welfare organisation or even as labs - have incurred much greater investments on buildings or creation of physical spaces (CUSP, SSUP, UPPS). They have also invested relatively larger amounts on furniture, play materials, equipment, etc., which has generally, though not always, added to the quality of the delivery. The only private organisation has also invested on materials and equipment, especially focusing on technological aids, which is also their primary attraction for customers (i.e. parents) and have not invested in building/land, etc. (LUPS). It has helped them in keeping the total capital investment low while making the centre look attractive to aspiring parents and also allowed them the flexibility to move locations if required.

Table 7: Capital costs incurred by the models (per centre costs in rupees)

Model	**Cost Component**							
	Land	**Cost of building**	**Cost of furniture, material, play material, equipment, vehicle, etc.**	**Initial cost investment on curriculum development**	**One-time induction training**	**Per centre Cost**	**Total no. of students**	**Total no. of centres**
UPCS	No capital asset	No capital asset	No capital asset	DNA	DNA	NA	530	14
CUSP 1	306070	893193	566299	DNA	DNA	**1765562**	770	11
CUSP 2	1094431	3193841	2024948	DNA	DNA	**6313220**	140	2
CBCDC	224000	118160	DNA	DNA	DNA	**342160**	500	32
UBM	569850	58988	12000	DNA	DNA	**640838**	240	12

UCM	550200	56488	10000	DNA	DNA	**616688**	155	6
SSUP	3996000	3400000	1130000	DNA	20000	**8546000**	93	1
LUPS	No capital asset	No capital asset	545258	DNA	DNA	**545258**	377	3
UPPS	No capital asset (Land is leased)	2120619	306083	190000	Part of research staff salary	**2616702**	110	1

Table 8: Annual Recurrent Costs Incurred (Per Centre costs in Rupees)

Model	Cost Component											
	Building rent and playground rent	**Rental/cost of basic class furniture, material, play material, equipment, vehicle and repair and maintenance**	**Electricity and water charges, office & other expenses**	**Salaries of ground & management staff & welfare expenses**	**Nutrition and supplementary & auxiliary services**	**Cost incurred on TLM**	**Cost incurred on curriculum development**	**Training**	**Parent/ community-centred**	**Per centre recurrent cost (Total)**	**Total no. of students (per centre)**	**Per child cost**
UPCS	37848	30552	27892	381534	238215	32832	DNA	52896	20000	821769	38	21626
CUSP 1	8811	42433	16185	442739	NP	50338	DNA	DNA		560506	70	8007
CUSP 2	28881	139086	53051	1451201	NP	69329	DNA	DNA		1741548	70	24879
CBCDC				105000	28080		DNA	DNA		133080	15	8872
UBM		3700		68480	NP + Part of Teachers Salary	10000	DNA	5700		84180	20	4209
UCM		1600		75075	95600	3000	DNA	2100		175775	25	7031
SSUP			100000	1636986	17860	173100	DNA	43093	12000	1983039	93	21323
LUPS	371597	21609	183527	1050251	NP	383600	46154	34154		2090892	137	15262
UPPS	4500	113000	122268	2249000	NP	1648	Part of initial Cost	Part of research staff salary	51776	2542192	110	23111

Note: DNA = Data Not Available; **NP-** No Provision

Table 8 shows that annual per child recurrent cost is lower than the annual total cost estimated earlier for the models because it does not include the annualised values of capital costs. The annual recurrent cost is higher (between Rs.15-25000 per child) on account of:

1. not investing in building, etc. as the rent component goes up (UPCS, LUPS)
2. providing high quality nutrition component (UPCS)
3. providing TLM (the nature of TLM varies depending on the approach but spending is high) (UPCS, CUSP, SSUP, LUPS, UPPS)
4. high expenses on salaries and other benefits for teachers and management (CUSP-2, SSUP, LUPS, UPPS)

In addition to the size of the teachers' salaries (discussed earlier), the scale or the number of centres that an organisation runs has a significant impact on the size of the salary component. The organisation that runs only one centre (SSUP and UPPS, serving as lab schools) or only two-three centres (CUSP-2 and LUPS), have a high annual salary and related expenses (between Rs.10-23 lakhs per annum for one centre) because their entire supervision, monitoring and management staff get absorbed by only one centre whereas in other cases , it gets observed by a larger number of centres/children. Community-based and community-focused organisations in rural areas or small towns have lower annual recurrent costs because of their dependence on community for a number of services and contributions as well as lower salary levels and rental values in their locations. Also, their spending on TLM is markedly lower than others (CBCDC, UBM and UCM). We return to discuss costs after analysing the revenue and their sources for these models.

1.3 Revenue sources and resource mobilisation

A number of mechanisms exist for resource mobilisation and acting as sources of revenue for the organisations that run the models covered under this study. They also often use multiple sources. The data analysis from the models point towards eight kinds of revenue sources that they have been tapping into:

a. Donations: Donations are funds or resources received by organisations either in cash or in kind. Cash donations include money received from individuals, institutions and corporate bodies from both Indian and foreign sources. Corporate bodies usually make donations under the mandatory clause of the CSR Act. In-kind donations include the direct provision of resources such as a TLM package, curriculum or infrastructural components such as low-cost toilets donated by NGOs or corporate bodies.

b. Aid/Grants: Aid and grants include funding provided by the state, a state-run institution, international agencies (bilateral or multilateral) including foundations and international NGOs (INGOs).

c. Collaborations: Collaborations function on the principle of quid pro quo and capitalise on the strengths of all the partner organizations involved to ensure smooth functioning of the programmes. Collaborations involve the organisation providing its expert knowledge in the form of either research or training to other organisation or to support/scale up state-level schemes. In return, the resources raised are either in the form of governmental support or result in collaborative products such as a curriculum package.

d. User fees: User fees refer to fixed amounts charged directly to the parents of the child. Depending on the organisation, this user fee is divided into various components such as admission fee, caution deposit fee, school bus fee, tuition fee, application fee, registration fee, re-admission fee, special fee, annual fee and replenishment fee. These sub-components differ depending on the strategy of the organisation and are allocated for different expenditure heads.

e. Out of pocket (OOP) expenditure: Out-of-pocket expenses refer to the money spent by parents on items bought for their children such as uniforms, textbooks, stationery, etc. Some of these items are optional such as transportation where the parents choose whether or not to avail the organisational facility. At times, parents choose how to spend the money on these items. For instance, the amount may differ on the kind of stationery parents may choose to buy for the child or the transport expenses would differ depending upon the choice of a school-provided bus versus a public transport bus versus if the child is picked and dropped by his parents in a private vehicle. But parents do not have much choice in certain cases such as textbooks and uniforms and have to go for what is asked for by the service providers. The difference between user fees and OOP expenses is that user fees are fixed and determine the entry point of a child into the institution whereas OOP expenses are slightly flexible and allow the parent to adjust their expenses to some extent.

f. Volunteering and contributions: Contributions from parents and community members has emerged as an important source of revenue. These contributions are in the forms of resources, time, labour and expertise. Contributions might either be in the form of direct provision of resources such as vegetables from the parents' house to cook mid-day meals or provision of land space to run the centre. Examples of time and labour contributions include

community members helping to build centre spaces or for cooking mid-day meals. Expertise of PRI members and community leaders are directed for the purpose of community-based monitoring.

g. Investments: Investments, in the strictest sense, are usually large sums of money pumped into an organisation usually with the objective of earning returns. Only one organisation running a 'for profit' ECCE service has received investments in the present study from a set of private 'angel investors' from the US and also from a social venture capitalist called Acumen Fund.

1.3.1. Model-wise analysis of resource mobilisation

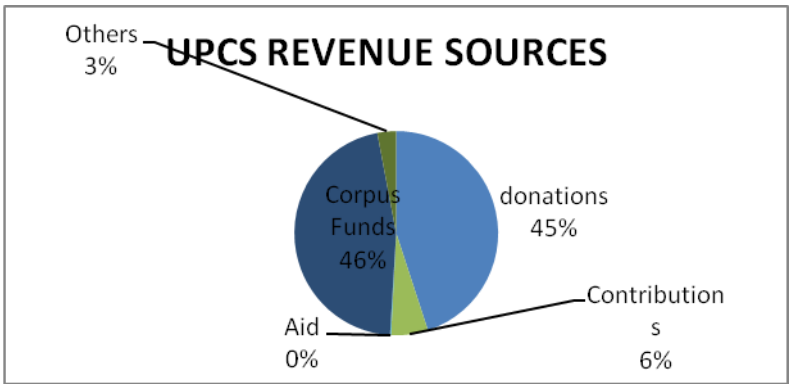
The following paragraphs discuss the individual model's resource generation strategies first followed by a comparative analysis.

A. UPCS

As mentioned earlier, they have several models but this analysis is limited to the day care direct delivery model at construction sites under which ECCE centres are run and managed at designated sites through a combination of their own funds and assistance received from respective construction companies or authorities. As mentioned earlier, each centre is divided into three sections: crèche for 0-3 year olds, balwadi for 3-5 year olds, and bridge courses for 6-12 year olds.

The organisation tries to run 12 centres at a given point in time to be most efficient and one site is functional for anywhere from one to five or years, depending on the site. The biggest challenge within this model is that it caters to a highly fluid and constantly moving section of society i.e. migration construction labourers. While the site may remain functional for several years, the population within the labour camps keeps shifting from one site to another, so the number of children at one centre also keeps fluctuating. In the year 2015-16, 3232 children were covered under this model, leading to an average of 57 children per centre. Donations, interest from corpuses, contributions from construction companies and community efforts are the main sources of revenue.

Figure 4: UPSC Revenue sources (from Annual Report 2015-16)



Donations: Donations are either general or earmarked to the corpus fund, or are in kind. Donations are from Indian as well as foreign individuals, institutions and corporate bodies.

Corpus Funds: Excess of donations are transferred into a corpus fund and interest on the corpus fund also serves as a source of income. The corpus fund is marked as a separate section in the organisational budget as it represents the part of the donations transferred to the fund plus the interest earned on previous funds available for the current year. This corpus fund is used for core administrative expenses and as reserve in case of a financial crisis.

The largest share of resources is raised through donations, a share of which is transferred into the corpus funds and together they form 92% of the resource pool. The organisation has been functioning since 1969 and has built a large corpus fund over the years. These two resources combined are diverted for the recurrent expenditure heads of salaries, nutrition, TLM/curriculum and training, covering more than 85% of the total annual expenditure.

Contributions: The contributions, in this case, refer to contributions from the primary stakeholder i.e. the building or construction company. While the space provided to construct the centre is an in-kind contribution, builders are also expected to spend separately on other capital costs such as furniture, construction of building and setting up of utilities. The contractors and builders also contribute to the operational costs of their own sites, varying from 5-70% of total operational costs for different companies. A cost analysis done by the organisation itself pegs that 28% of the expenditure of the direct delivery model at construction sites was borne by the construction company in 2015-16 (as given in annual report 2015-16). These operational expenses may include any kind of expenses under the major heads of salaries, nutrition, pedagogy training or TLM and curriculum development. The management shared that only one out of the three companies they approached agreed to contribute to the building and running of crèches at the site in 2015-16.

Aid: A nominal amount of aid was also provided by the government under the RGNCSbut that has stopped since 2016.

Others: The Others category includes all the resource collection, donations in kind, sale of assets, redemptions, income on special funds etc.

Community efforts also play a central role. The organisation identifies local community leaders who maintain an interface between the builder company/contractor and the community members, and aid with the organization's community outreach programme. Some of their responsibilities are maintaining safety after work, identifying and resolving local issues such as water/electricity, local purchasing of material, monitor children with severe malnourishment, track entry of new labour in the camp, provide basic first aid, and help with linkages with government departments. Community members are also involved through other means of street plays, health camps and FGDs and, through monthly parent-teacher meetings where issues of infant and young child feeding practices, nutritious food, cleanliness and hygiene, the importance of appropriate childcare practices at home and outside, redistributing care work within families, the impact and holistic growth on children as well as matters not directly related to ECD such as financial security or health insurance are discussed. A group of community leaders called *Saathi Samuh* has been created who work on a voluntary basis and help in sustaining the agenda of community awareness even after the NGO's direct intervention ends at one particular site.

On the whole, the organisation is able to offset about 45% of its total expenses through contributions from the community and the builder company (about 30% of running expenses, 12% of infrastructural resources and 1% of community-based practices and certain fixed costs).

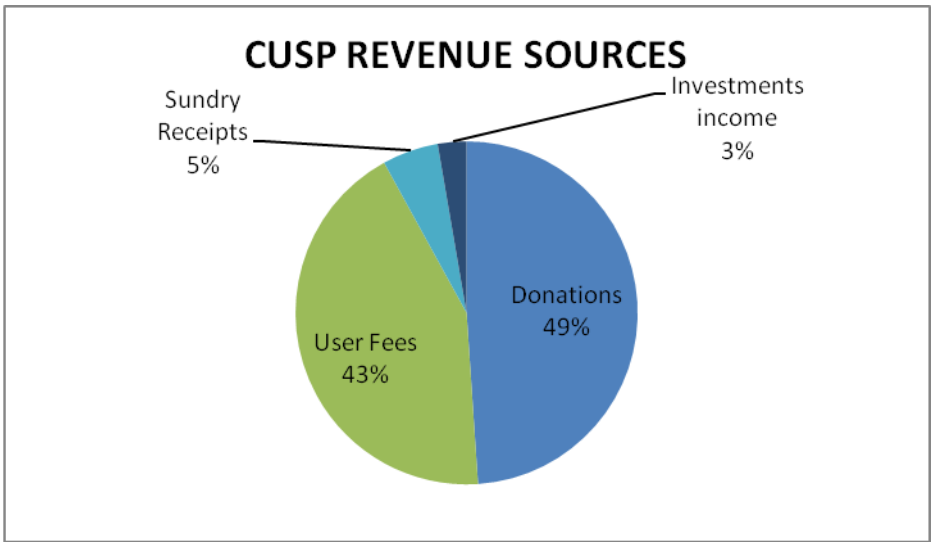
The model needs to be accommodative of the transitory nature of its target population and to gain their trust before even initiating negotiations with the main community stakeholder i.e. construction companies. The success of this strategy depends on these negotiations and the level of their buy-in to finance and run the model. In this model, buy-in from the community stakeholder i.e. builders, is a major deal breaker for the setting up of the centre itself. Even after the non-recurring costs of land and building are taken care of, community contributions are necessary for recurring costs and raising awareness. A higher contribution from the stakeholders helps in not only scaling up the model but also in improving the quality of services.

Further, an optimum usage of funds would be ensured only if there is full enrolment and participation of students. Given the transient population category, the enrolments and attendance rates are constantly fluctuating which does not always ensure efficient usage of funds received by the organisation. The major obstacle in the way of scalability is the lack of personnel, as shared in the management interview. Since salaries under this model are highly dependent on donations, the organisation has started diversifying into other models and has also collaborated with MWCD as a training partner to raise more funds. Thus, besides depending on donations and community contributions from builders, the organisation is using its expert knowledge to raise funds through other sources as well. But in order to sustain the intervention even after its exit from the site requires community volunteers who are willing to spend time to raise awareness about ECCE, healthcare and other related issues, as proven successful with the help of the community--based group Saathi Samuh.

B. CUSP 1 & 2

This organisation runs both schools and learning centres and is mainly dependent on donations and user fees to run ECCE centres. These two means cover about 92 percent of their revenue.

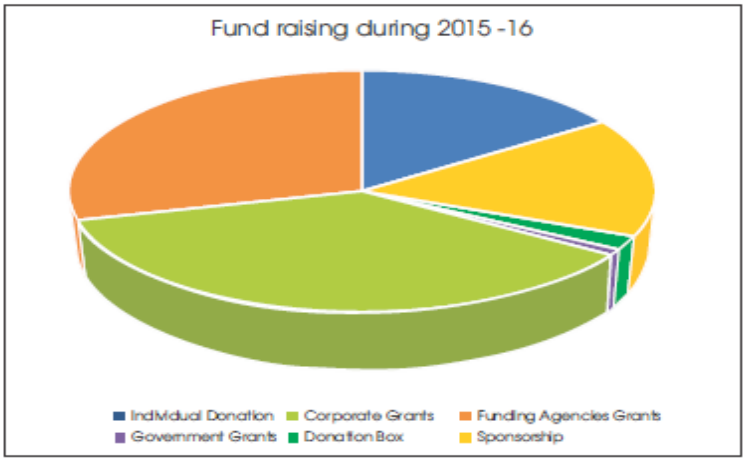
Figure 5: CUSP Revenue Sources (from Annual Report 2015-16)



Donations: The Annual Report 2015-16 of the organisation divides this category into individual donations, corporate grants, funding agency grants, government grants, donation box and sponsorship, the distribution of which is depicted in Figure 6 below (taken from Annual Report 2015-

16). The individual sponsorship programme is a form of donation where individuals can sponsor a single child in the school (to the tune of Rs. 7000 per child in LKG/UKG). Another method to raise donations is by placing donation boxes in restaurants, gift shops, garment stores, etc. All these sources combined totalled about five crores of funds in 2016 and constituted almost half of the total revenue. The management interview revealed that in recent times, funding has reduced drastically because of the CSR Act leading to corporate bodies starting their own Foundations and directing all their money there rather than donating to NGOs. To combat this, the organisation has devised ways to exhibit their impact and thus garner more donations from other sources.

Figure 6: Donation sources (from Annual Report 2015-16)



User fees: The second largest resource share is that of user fees. The school charges Rs.250 per month for a girl and Rs.350 per month for a boy. In 2015-16, the funds raised through user fees alone was close to four crores. The management shared that the major part of these two resources goes towards recurrent programmatic expenditure which includes salaries, development of TLM and teacher trainings. The principal of one of the centres justified the charging of user fees as a way of keeping the community involved. She said: “Our main philosophy is that parents must understand that nothing comes for free and the community we work in must understand the value of what we are providing them. Hence, we charge a nominal fee for them that keeps them involved in the process. In fact, we call this community contribution and not user fees. And this system contributes in rapport-building as well.”

Sundry Receipts: Sundry receipts comprise the income gained from miscellaneous sources such as the sale of greeting cards made by the children (not more than Rs.15 each) or from the sale of assets.

Out-of-pocket expenditures: Out-of-pocket expenditures by parents includes uniforms and learning material such as books, notebooks and stationery. Since nutrition is not provided at these centres, this also becomes an out-of-pocket expenditure for the parents. There are three subjects in the pre-primary section and the costs incurred on purchasing these textbooks is Rs.900-1200 per child.

Investments and Fixed deposits: This pertains to the income received on sale of assets and maturity of various investments and fixed deposits in the banks or in any other form.

As per the cost analysis, the total estimated costs of one ECCE service in the learning centre model is Rs.5,60,506.00 and for the composite school, it is Rs.17,41,548. The resources set aside for running one ECCE centre in a learning centre is Rs.47,11,372 and in a composite school is Rs. 86,37,516. (Refer to resource calculations in Annexure 4). This means there is a large amount of surplus available with the organisation. This shows that though a non-profit organisation, it has managed to generate surplus because of high donations it receives and also because of the user fee policy.

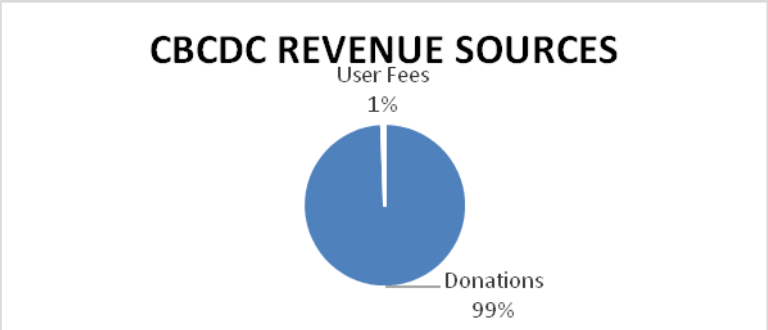
C. CBCDC

The organisation follows a unique process of initiating an ECCE centre, mobilising the community and withdrawing once the government enters the village. They hand over the centre to function as the ICDS centre and identify a new village with no access to ECCE to go to. The organisation leverages a number of large networks at the state-level, working with dalit, fishermen and adivasi communities for networking and campaigning. They have together formed task forces at various levels in order to lobby the CBCDC model to the government.

There are two kinds of models run under this programme: centre-based camps and home-based camps. The centre-based camps are based within the community and provides mother tongue-based, multilingual ECCE to tribal children from two to six years of age. It focuses on mother tongue-based learning for children in the two to four years of age category and multilingual education for children from four to six years of age by introducing the state language, English and Hindi along with their mother tongue. The home-based camps are mainly for educating caregivers on care during pregnancy, neonatal and postnatal care, colostrum feeding, exclusive breast feeding till the baby is six months old, child and mother immunisation, early stimulations and the importance of ECCE. A total of 480-500 children are covered across 32 centres, with 15-18 children per centre. The programme caters to low income families and minorities, five percent of the total population catered to are SCs. Only the centre-based camps are being analysed here.

User Fees: The user fee collected from the parents is very nominal with Rs.10 as annual fees and Rs.1 as monthly fee.

Figure 7: CBCDC Revenue Sources (calculated from field notes)



Community Contributions: The organisation strongly believes in being a people's institution for the sake of sustainability. The building for the centre is provided by the community. In certain cases, where a building is not available, the community is mobilised to contribute labour and other resources such as brick-making, carpentry, masonry, woodwork, building of boundary wall, etc. to build a small hut with minimal standards like a roof or a slab. The community members also contributed their labour and time for the construction of toilets.

One person from the community helps in preparing meals on a rotational basis and food is prepared within a community building. Even for the raw material, the parents and community members contribute food grains for preparing meals at the centre in case of delays in government supplies. The programme also locally sources items such as sticks and stones as learning material for counting exercises. Even the monitoring committee of 7-12 members consist of parents, youth, PRI members and committee leaders who work voluntarily.

Aid: Water in these centres are sourced from tube well installed by the government at designated points.

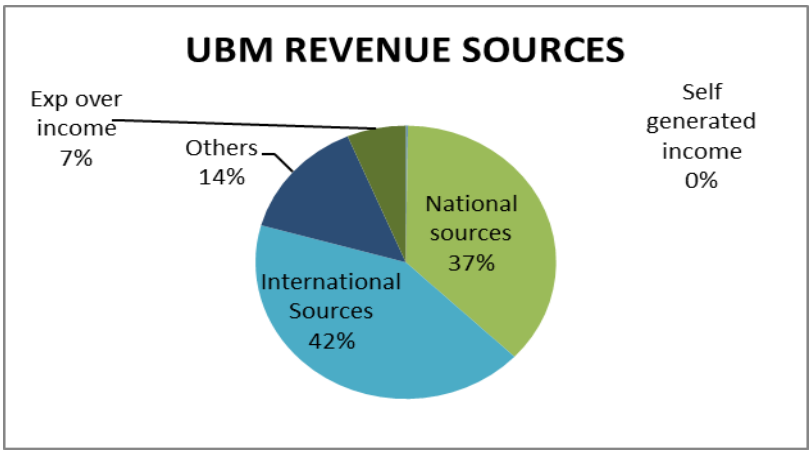
Donations and grants: They have received grants from an international agency amounting to Rs.60,000.00 per village.

The revenue in monetary form available per centre is Rs. 60,343 while the cost required to run it is Rs.1,33,080. This is one of the few organisations that has lesser resources than the cost and that is because the model is largely community-based. The manager of the organisation estimated this to be nearly 40 to 50 per cent of the contribution of building costs.

D. UBM

This urban slum-based organisation has been working in those areas for 32 years and running remedial classes. Because of its presence in the slums, the organisation did not need to undertake any special mobilisation efforts to start the first balwadi centre. The model started with 40 centres, after which the state government opened some AWCs and hence some balwadi centres closed down. As of today, 240 children are covered in 12 centres under this model with a targeted norm of 25-30 children per centre.

Figure 8 UBM revenue sources (from Annual Report 2015-16)



Donations and grants: The organisation receives donations and grants from national and international sources both in kind and cash. The balwadi centres used to be funded by American Jesus World Solutions and they also received support from CRY and Bernard van Leer Foundation for two years. Some of the grants received were ear-marked for specific purposes. For instance; Concern Worldwide funded the construction of floors, windows and doors and Water-Aid supported the construction of low-cost toilets. Red Cross supported one teacher training programme.

User Fees: Since 2016, the organisation has started motivating parents to pay a nominal amount in user fees i.e. Rs.150-200 per month. The amount was decided through mutual discussions between the Parents Committee and the Basti Education Committee. There is not much clarity on whether this user fee goes under the head of Self-generated income or Expenditure over income. Using the number of children covered under this programme, the user fees estimates amount to Rs.5,76,000.00 in a year.

Others: Since this category was not explained in the financial statement, it could include anything from surplus funds from previous year, income earned from sale of assets or simply the worth of in-kind donations.

Community contributions: The main philosophy behind involving the community is that it makes the programme more sustainable and practical. One of the major features of the programme is to use existing low-cost community resources such as empty buildings e.g., churches and unused community spaces for housing the centre. Electricity charges (wherever available) are also taken care of by the community. A unique community contribution in this model came in the form of labour and time. With respect to the new toilets that were constructed after the 1999 cyclone; the materials were provided from the organisation but the community contributed their free labour. The wall for the playground was built by the slum members and paid for by them. Under the TLM head, old play materials were brought in from the earlier centres and community members brought in old waste boxes for preparing TLM. The community also monitors the performance of the teachers' attendance.

Out-of-pocket expenses: The parents are compulsorily expected to buy a package of one set of uniform, belt, tie and ID card by paying Rs.600 per child from the same organisation. Other than that, parents buy books and bags for around Rs.500. Since the nutrition component is dropped out of the programme, parents also spend extra on buying tiffin boxes and sending snacks with their children.

Salaries which form the largest expenditure head (67%) are paid directly from the user fees component as shared by the management. It is unclear from the budget which component exactly constitutes the user fees. User fees could either be exp over income or self-generated income or under the Others category, all of which combined account for 21% of the resource pool. Even these three categories combined would not be able to fund the salaries component as the mismatch is huge. The user fees component alone would definitely not match up with the salaries account.

The cost analysis showed that the yearly cost of one ECCE centre is Rs.84,180 while the resources available amounted to Rs.2,19,622 (refer calculations). It is likely that the organisation spends this surplus of revenue on cost facilities such as the child helpline that may have been excluded from the cost analysis undertaken here and also for running a number of other programmes under health and vocational training that they undertake.

The management interview revealed that while the organisation had planned for 300 children in their centres, there were only 240 children currently and this is mainly because of the introduction of the user fees component. The organisation seemed to be heavily dependent on its funding agency because as soon as it stopped, the operational expenses of the centres were in jeopardy. This over-dependence on donations forced the organisation to transfer the cooking of meals and provision of raw materials to the parents and the community. This decision of offsetting the cost by involving the community is what helped the model reach its break-even point during previous years.

E. UCM

The crèche model is also run by the same organisation in urban slums for children between six months to six years of age and primarily caters to children of working and ailing mothers in the slums. The organization is sanctioned to run crèches under the RGNCS. The organisation started running crèches since 1992 with one centre each in three slums of the state capital. As present, there run six crèches located in six slums and covering 155 children in all. The organisation maintains a norm of 25 children per centre. The organisation also maintains certain norms in order to have a fair representation of age groups and economic backgrounds. Forty per cent of the children in each centre must be below three years and half of the children must be below the poverty line i.e. whose parents' income is less than Rs.12000.

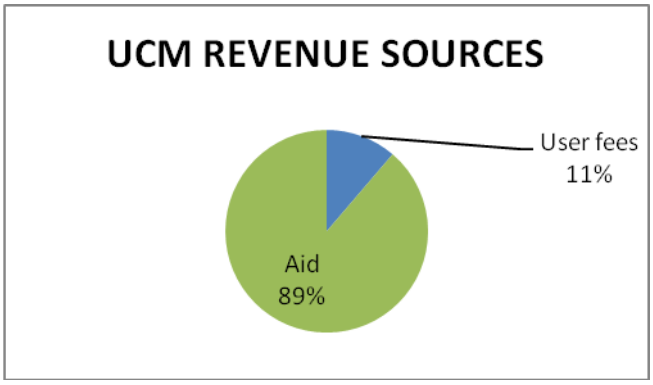


Figure 9: UCBM revenue sources

Government aid: As per RGNCS norms , 90% of the funds of this organisation are provided by the state government as aid. The government also funds and organises monitoring by independent agencies. A non-recurring grant of Rs. 5000 is provided by the government towards replacement/purchase of equipment, furniture, water filter, etc. at an interval of five years and a one-time grant of RS. 10,000 when the crèche was started.

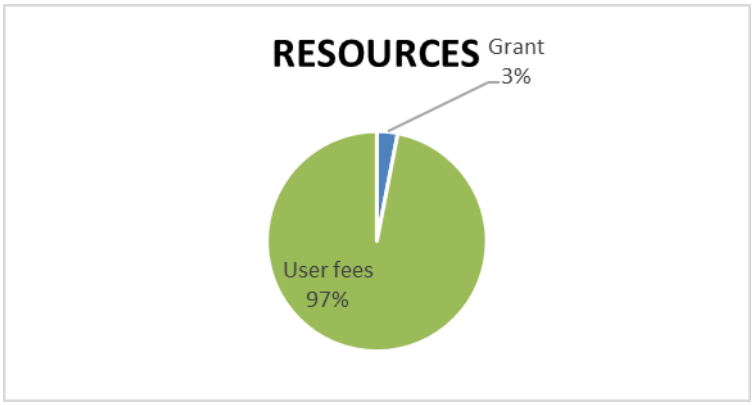
User Fees: The remaining funds i.e. 10 per cent of the budget is raised through charging user fees. The organisation uses a progressive user fee norm where a child from BPL family pays only Rs.20 per month where a child coming from a household with income up to Rs. 12,000 per month pays Rs. 100 per month and those coming from households with income above Rs.12000 per month pay Rs.200 per month. Provision of TLM and pedagogy trainings are completely financed through user fees.

Others: Water Aid supported the construction of toilets in these centres. Auxiliary services of immunisation are provided through support from ASHA and ANM workers, i.e. using public resources. Monitoring is undertaken through inspection visits by the social welfare board members, voluntary positions at the helm of the organization.

The cost analysis shows that the cost incurred to run one ECCE centre is Rs.1,75,775 while the resource available per centre is Rs.4,39,245. Since the funding scheme of the crèche follows government norms under RGNCS, the resources obtained by the organisation do not differ from year to year. The user fees, on the other hand, change from year to year because of the change in the number of users and also their composition in terms of which economic category they come from. Given the size of surplus over cost , there may be a case for reducing the user charges or enhancing the quality and range of services, especially in view of the fact that the centres were plagued by a number of operational inefficiencies. The centre we visited was dark and dusty with hardly any play materials . The teachers were also confused with respect to the timetable to be followed at the centre, their employee benefits, the health components of the programme, the tracking and assessment system followed and other related things. Even the parents were unhappy with the irregularity of meals and insufficient play materials available.

F. SSUP

Figure 10: SSUP revenue source



User fees: The fee breakdown for children attending the ECCE programme is as follows – a one- time caution deposit of Rs.5000 and a tuition fee of Rs.1000-1200 per month . This amount primarily goes towards teachers' salaries and materials for running the ECCE centre.

Grants: The centre receives grants from the university. As per the university records, the amount set aside for this college is Rs. 40,000 annually. The grant is used for the setting up of the centre, utility expenses and the cost of one guest lecturer per year.

Out-of-pocket expenses: Parents have to pay separately for textbooks and notebooks for English, Maths, Hindi and EVS. In addition, one field trip is organised per academic year, for which Rs.20 is additionally collected from parents towards snacks. A day care facility is also offered to children whose parents have difficulties in taking children back home in the middle of the day. The fee for this is an additional cost and parents pay an additional Rs.1200 a month. One of the parents revealed the school offered some additional classes after school hours (such as dance and singing) for additional fees, the amount of which was not revealed.

The largest expenditure head of salaries that forms 65% of the total costs is financed through the largest resource head i.e. user fees. The university grant which is three percent of the total resources is used for providing the building space, construction of the centre and utility expenses. The expenses on teacher training is borne by the teachers themselves to the tune of Rs.4000 per head. The estimated annual resources available for the centre is Rs.16,92,600 as against the annual estimated recurrent cost of 19,83,039. It is possible that the additional fees charged for which we do not have the data offsets some of the expenses.

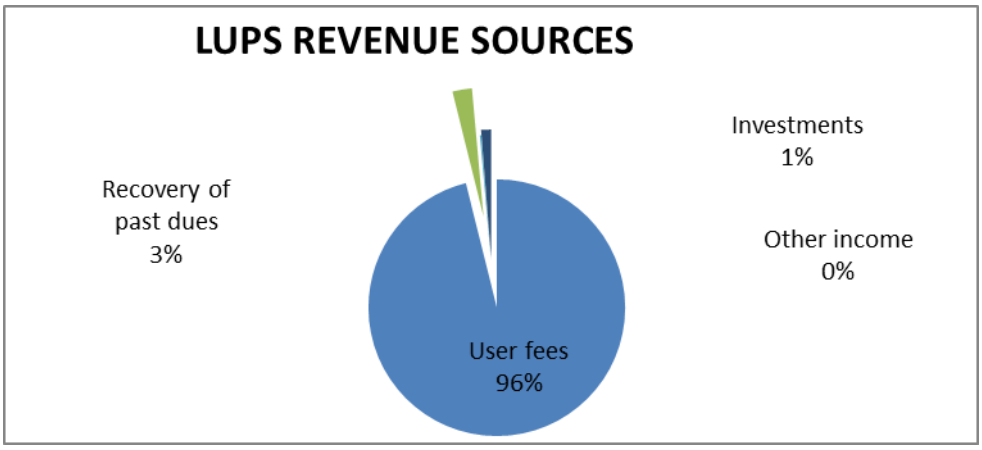
Since this is an experimental lab school, the organisation has no plan of scaling it up in future and would only be used as a training site for students. Sharing of resources between the university and the centre is common: resources owned by the university (playground, classrooms, bus etc.) is used by the ECCE centre and the TLM prepared by the students of the ECCE programme as part of their training or assessments is later used in the ECCE centre . As part of their hands-on training, students are also expected to take up certain classes at the ECCE centre. So most of the costs are either distributed as user fees to the higher classes or are obtained as in-kind resources from the larger institution.

G. Low cost urban composite school with pre-primary sections (LUPS)

The organisation running this model is registered as a private limited company and that was started in 2013 by an IT engineer from Georgia Tech who was passionate about making a mark in the education sector, especially in the context of low cost private schools.

According to the head of the pre-primary programme, the basic idea of the model is to acquire schools under their portfolio. They currently have a total of three schools in the state capital. The organisation seeks to acquire small schools and then expand as the revenue increases with increase in the enrolments. These three schools have classes running from nursery to Class X. Each school has three pre-primary sections – nursery (2.5 years to 3.5 years), LKG (3.5 years to 4.5 years) and UKG (4.5 years to 5.5 years). Parents of children who attended these schools ranged from being university lecturers to support staff at the same school.

Figure 11: LUPS revenue sources (as provided in P&L accounts of 2015-16)



User Fees: The schools under the LUPS model collect user fees which are in turn paid to the head organisation as service fees. The user fee is split into various components of tuition fees, school bus fees, admission fees and application fees. The admission fee is Rs. 2,000/- per child in 2016-17 but the school management has discretion to offer concession/discount on admission fees. Further, during the admission period, there are promotional offers which predominantly include an admission fee waiver which is largely availed by the parents and the monthly tuition fees include the school diary and badge (the school diary and ID card are charged to the students one-time at the time of purchase of books). If the students opt to take up transportation, then the school bus fee also needs to be paid. The management claims that this cost is heavily subsidised as the total transport cost ranges between 10,000 and Rs.12,000 per month depending on seating capacity while

on an average only Rs.6,000 per month is recovered from the parents which is divided among the number of parents depending on the number of people who opt for it. According to the management, the average fee for nursery is about Rs. 13,000 while the average annual fee as reported by the parents turned out to be Rs.15,000 per child.

The user fee is allocated largely towards payment of salaries, building and playground rent, school bus cost, professional services and other office expenses.

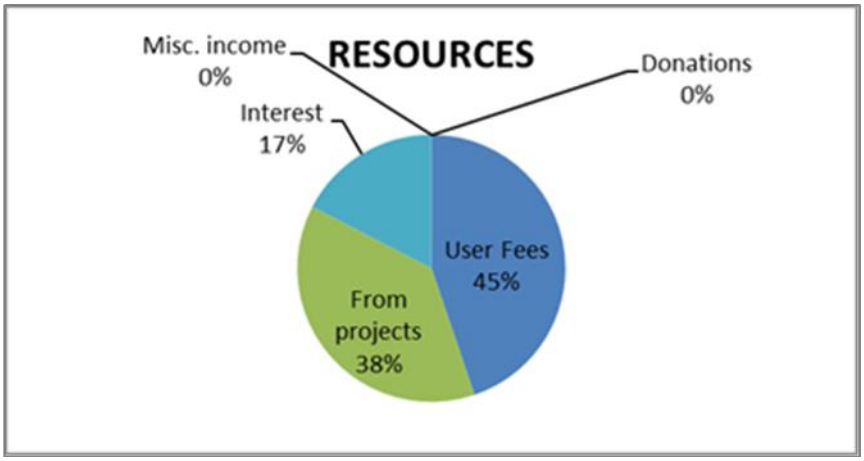
Recovery of past dues and other income: Recovery of past dues largely includes unpaid fees of the previous year which are recovered in the subsequent year. Other income includes interest income from bank, etc.

Investments: It has received initial capital from private firms which has been used to set up the school. The initial investment for setting up a school was Rs. 70-80 lakhs. Initial investments included creating 'learning infrastructure', that is, benches and desks, a computer lab consisting of at least 25-30 computers, internet connections, power backups, office equipment, CCTV camera, office computers, printers, including library set up and books, science lab equipment, initial renovation and painting and rent of the playground. The interest helps in financing the maintenance and organising one induction training of teachers at the beginning of the year, a subject-specific training programme in English, Maths and Science for a period of two days and to purchase other contents and teaching aids from corporate content providers.

Out-of-pocket expenses: The parents informed us that they spent about Rs.500-650 for one uniform set. Astragen books are purchased from a vendor and sold to students. The training and digital content are included in books cost by the vendor and hence not recovered separately. Text books are sold at MRP to the students. LUPS purchases books from third party vendors – Karadi Path (for English in lower grades), NIIT (computer education) and Butterfly Fields sScience experiments for high school) that are sold at a discount to the students (20-30% of the purchase cost). The verage cost of books in 2016-17 was Rs.2,000/- (for pre-primary the average cost would be Rs.1,500/-) according to the management. Parents spend about Rs.1500-2000 for textbooks alone and maybe another Rs. 200-300 for notebooks.

H. UPPS

Figure 12: UPPS revenue source



User Fees: This basically included different types of user fees such as application fee, registration fee, admission fee, re-admission fee, tuition fee, special fee, annual fee and replenishment fee. From the interview with the management , it was found out that the fees per child for one year is Rs.20,000.00 which includes an admission fee of Rs.4000, a special fee of Rs.1500 and a tuition fee of Rs.6000 (per child, per annum). A clear breakdown of the utilisation of this resource was also provided. The admission fee is used towards infrastructure - on repairs, purchasing or replacing furniture, or to make additions to infrastructure like labs, etc. The tuition fee is used to support salaries and allowances, including EPF, PF, gratuity, etc. The special fee is used towards the programme - for activities, stationery, etc.

Interest: In case a surplus amount is collected in any year, it is sent to a fund called the Teacher's Fund. The interest received on this fund is to be used in years when the school runs in deficit like the current year.

Income from projects: A large proportion of the funds is also raised through other services such as training and supporting other organisations and state-level ECCE schemes. They have extensively supported the ICDS in their state both with curriculum development for AWCs as well as for training AWWs. They also supported the ECCE component of the DPEP. The unit has also worked on several research projects. In 1990, they undertook a nation-wide study in collaboration with NCERT on utilisation of pre-school services by the community. They have pre-tested existing play material in the state and developed a pre-school kit based on this experience. Another micro-study was conducted to study the impact of privatisation (in one village) to understand parental preferences for private schools/English medium education. The ECCE unit of the NGO has also been commissioned and submitted a report on the contextualisation of the ECCE policy/curriculum for the

southern states and in the past they have also supported the Dr. B R Ambedkar Open University in the development of their early childhood programme curriculum.

They also developed a curriculum called Shishu Vikasa Karekram with UNICEF support which is now being translated into several languages such as Gujarati, Hindi, etc. The unit has also developed a language readiness curriculum with UNICEF funds (used in tsunami-affected areas) and an early stimulation package for under three year olds. NCERT developed a programme called CHER in which teachers conduct classes orientating the child to the radio programme and check on the child's knowledge and understanding after the broadcast which was adopted by this organization. Another unique model piloted in Adilabad was that of the community-managed balwadis in which the financial management of balwadis was given to the community and one parent was invited every day to be present at the balwadi to manage it. These projects either helped in raising funds directly or in creating resources as an output of these projects that indirectly helped in the TLM or curriculum component of the programme.

The admission fee is used on maintenance of infrastructure since the capital costs has been taken care of by Osmania University through its in-kind donation of building. Government support has been highly instrumental in pushing innovations and recognising this institution as an expert resource in the field. Based on the track record of this organisation, the DoE (i.e. Commissioner and the Principal Secretary) funded the development, updating and translation of an ECCE curriculum package called Shishu Vikasa Karekram.

The estimated resource available is Rs 53,64,403 and the estimated annual recurrent cost of the centre is Rs.25,42 ,192. This means they have a huge surplus available.

The estimated revenue of one centre is Rs. 14,78,687 per annum, which is less than the estimated annual recurrent cost of Rs.20,90,892 per centre. The management shared that there is an initial operational loss of 2-3 years for the schools to grow and for the cash flow through user charges to entirely offset the running cost. This model is user fee-dependent and therefore highly sensitive to enrolments. The management explained that in terms of parents' preference and to be a cost-effective (and profit-making) model in the long run, a revenue-based model run by a private entity is best functional as a composite school. This helps in distribution of costs among different age groups and in achieving economies of scale.

1.4 Summary of estimated costs and eevenue of various models

Table 9: Summary of estimated costs and revenue

Models	Total Cost (annualized) (Cost in Rupees)		Capital and recurrent costs and annual revenue (Cost in Rupees)			Total No. of centres	Total No. of Students (Per Centre)
	Per child	Per centre	Per centre capital cost	Per centre annual recurrent cost	Annual revenue (per centre)		
UPCS	21626	821796	NA	821769	8,78,667	14	38
CUSP 1	9338	653681	1765562	560506	47,11,372	11	70
CUSP 2	29527	2066924	6313220	1741548	86,37,516	2	70
CBCDC	10537	158053	342160	133080	60,343	32	15
UBM	6400	127990	640838	84180	2,19,622	12	20
UCM	8636	215906	616688	175775	4,39,244	6	25
SSUP	28769	2675599	8546000	1983039	14,78,686	1	93
LUPS	15761	2159264	545258	2090892	16,92,600	3	137
UPPS	23947	2634213	2616702	2542192	53,64,403	1	110

Table 9 provides a summary of cost and revenue estimates along with the size of the models in terms of the number of centres they run and the number of students covered by these centres. Table 10 provides a rough snapshot of the revenue sources and expenditure heads for the nine models. What emerges clearly is that a number of NGOs have also moved to charging user fees and the models charging user fees are able to fund their running costs and also generate surpluses. Those not charging user fees have to depend heavily on contributions from the community or other stakeholders. Another important point that emerges is that the organisations which have established themselves and earned a good name can also generate high revenue through donations or services. While these raise a number of issues and provide a number of pointers for the lessons that are to be translated for public policy and finance here, we next move to an analysis of scaling up the implications of the costs, before discussing the policy implications in the next and final chapter.

Table 10: Rough Snapshot of Revenue sources and Expenditure Heads

	UPCS	CUSP	CBCDC	UBM	UCM	SSUP	LUPS	UPPS
Infrastructure, space and resources	Contributions	Donations and user fees	User fees, aid and contributions	Donations and contributions	Donations, aid, user fees and contributions	Aid and user fees	User fees and investments	Donations and user fees
Salaries	Contributions and donations	Donations and user fees	User fees	User fees	Aid and user fees	User fees	User fees and investments	User fees
Nutrition and auxiliary services	Donations	Out-of-pocket	Aid and Contributions	Out-of-pocket	Aid, contributions and user fees		No provision	No provision
TLM and curriculum development	Donations and contributions	Donations, user fees and out-of-pocket	Donations and contributions	Donations, out-of-pocket and contributions	Aid and user fees	Out-of-pocket and contributions	User fees, out-of-pocket and investments	Aid, user fees, out-of-pocket, collaboration
Pedagogy Training	Donations	Donations and user fees	Donations	Donations	User fees and collaborations	Out-of-pocket and grant	User fees, out-of-pocket and investments	User Fees and collaborations

1.5 Emerging lessons for scaled publicly funded programmes

The analysis clearly shows that though there are obvious lessons emerging, there are also limitations that one faces when trying to seek lessons from small models funded from diverse sources for publicly funded programmes serving largely the poorer sections of the society. However, here we list the lessons and raise some emerging issues and dilemmas while we translate these into policy suggestions in the concluding chapter.

1.5.1 Need for a variety of cost-models for diverse target groups and locations

An unambiguous lesson that emerges is the need for diverse cost models for diverse target groups and locations as one size does not fit all. For instance, as in case of UPCS, it indeed makes sense to have a full-day model with no creation of permanent capital assets that serve children of construction workers or other similar target groups where parents, especially mothers, also work full days for a period of time after which the site becomes dysfunctional. The period for which a site remains active and functional depends on what kind of site it is: construction, brick kiln, sugarcane harvest and so on.

Similarly, the models serving children in urban slums in the hearts of cities might function without the creation of capital assets such as building because space is both costly and rare to find. Provision for an amount that is commensurate with prevalent rents in particular areas is critical for such locations. On the other hand, creation of separate spaces and physical facilities meant for ECCE services in rural areas where space is available makes greater sense.

In this context, another lesson that emerges from two models, SSUP and UPCS, is that that even in urban areas, existing public and private institutions such as universities and other such organisations can be tapped to provide land and building facilities for ECCE centres not only for their own employees' children but also for neighbourhood population groups. Space for a variety of activities and play is an important enabling component of early years' education and care, and therefore, the paucity and high cost burden in urban areas can partly be addressed though such provisions.

1.5.2 Public provisioning for the poor or for all

An important point often raised in the context of public services is that if those are meant only for poor people, the quality remains poor. If that is taken as being somewhat true, this kind of measure could offer one way of breaking this divide. The provision by universities could initiate this, enabling children from different classes and communities to attend ECCE centres together. Although given the present trend of the entire middle class moving away from public education and health services, it is a major challenge to break the divide. However, measures such as these could help in moving in that direction.

1.5.3 Need for defining non-negotiables and non-acceptables for space and physical environment, teachers' qualification, pedagogy, TLMs, research and monitoring

Another lesson that emerges is that high quality and stimulating ECCE services require certain fundamental provisions, as documented earlier in our framework derived from the literature and these provisions have significant cost implications. Considering our experience of homogenous and standardised norms for provisioning becoming rigid and often unsuitable for diverse contexts, it makes greater sense to define non-negotiables for space and physical environment (minimum space per child – not less than…; playground, ventilation, light,), teachers' qualification and quality, range and kinds of TLMs, and pedagogy.

A clear definition of 'non-negotiable' norms would ensure that every centre has to have that and a list of 'non-acceptable' would ensure that practices known to have adverse impacts on the stimulation and learning in early years are not included. This would also allow creative freedom by not defining everything that is to be done, while developing clarity regarding what is not to be done.

1.5.4 Teachers' quality, qualification and salary

Teachers' quality and qualifications could also include respectful and accepting attitudes towards the multilingual backgrounds of children even in the context when the official medium of instruction may include only one or two major languages. This is relevant in both urban areas where migrant populations come from diverse language contexts and rural areas where groups may have diverse home-languages (e.g., tribal areas). Sometimes, even the same language is spoken differently by different communities and children could be allowed to use their version before moving to whatever the 'standard' version demands. Also, immigrant groups also come in for harvest and other occupations in rural areas as well, making respect for a variety of languages critical there as well.

The issue of teachers' qualifications also brings forth the issue of teachers' salaries. As mentioned earlier, the salary levels are low for most models, and in some ways comparable to what ICDS workers receive given that those who receive slightly higher salaries in these models also have higher qualifications. UPCS is one exception which pays higher salaries despite the fact that the qualifications are not as high. Even in this case, the remuneration is limited only to minimum wages for skilled labour. Therefore, considering the demanding and professional nature of the job, the minimum remuneration must be equal to minimum wages for skilled labour for that much time. Time estimations should include all the responsibilities and expectations from the person and not be limited to teaching hours. Also important is to add the component of purchasing power parity in terms of additional allowances for those working in cities and high-priced locations.

1.5.6 Pedagogy and TLM

The issue of languages is also linked with the choice of pedagogy and the kinds/range of TLMs. The analysis shows that models that came across as more vibrant and lively had also invested more on TLMs and pedagogy training and also followed a more research-based approach towards the development or purchase of TLMs and monitoring of processes. Therefore, adequate cost provision for such interventions is also necessary. The material found in the fieldsites ranged from sticks and stones in the CBCDC model to a smart board with a projector in the CUSP model. LUPS, the private, profit-oriented initiative, focuses on technology-based aids and this is a major attraction for parents. It is important to have clarity regarding TLMs as well. What is suitable and what is not suitable at this age must be included in the list of non-negotiables and non-acceptables.

The teacher training in almost all the organisations was done with the help of external consultants. Regular training backed by research and supportive monitoring helps in better results. The literature clearly says that and fieldvisits validate it. Therefore,adequate cost provisions are critical but also as important is to define the kinds of training that could help and the kinds that would not. Mere provision for training does not help if it is not suitable and sustained though other support measures.

1.5.7 Food and Nutrition services and community mobilisation

Nutrition has long been a vital component of the early childhood care policy in the country and also a need given that India still has a disproportionately high burden of malnourished children. Among these models, only UPCS follows the norm of providing food containing defined nutritional value and has the highest per child recurrent expenditure on this head. Per child recurrent expenditure on food and nutrition is relatively lower in another community-based model, CBCDC, but it depends on community labour, knowledge and contributions to strengthen the component. Community members provide a number of locally used and available nutritious food items and also take turns in cooking, pushing the costs for this component up when all these are monetised. Community involvement with food also facilitated mobilisation around desired parenting practices at home and also for appropriate pedagogical practices for young children.

Both of these provide important pointers for policy: it is important that adequate cost provisions are made for food and nutrition and it is also perhaps important to design mechanisms for engaging communities in this process in a manner that they are also made accountable to strengthen both education and nutrition elements of early years through their parenting practices. This brings in the aspect of community focus and mobilisation. Only two models, the UPCS and the UPPS, have clearly made separate financial provisions for community education/engagement, though most models do expect teachers to undertake this exercise as part of their responsibilities. Making separate financial

provision helps in establishing the need and importance of such mechanisms; otherwise the component can easily be left out. However, it is equally important to understand the rationale for this and make provisions flexible: for instance, learning from CBCDC, in large programmes, some elements of the food and nutrition can be left to the local community collectively to include what is locally available and also considered nutritious. This allows space for both local knowledge and participation thereby leading to ownership. Group of community leaders like the *Saathi Samuh* in the UPCS model or involving the PRIs in the organising activities of community engagement, backed by financial allocations , have helped in sustaining the ECCE agenda even after the organisation's exit from the site, in both rural and urban contexts. Other examples come from the CUSP model, where parents were asked to accompany teachers and children on the field trip to help manage the kids and in the SSUP model, where parents volunteered to help organise health camps and field trips.

1.6 Challenges of scaling up

Two major challenges emerge in the context of scaling up: (i) the centralisation-decentralisation dilemma, and (ii) resource mobilisation.

(i) Centralisation-decentralisation dilemma

The lessons learnt clearly suggest the need for a decentralised approach and context-specific models. But this poses a challenge for large-scale interventions where the need for standardisation is critical for the sake of accountability and efficient management.

Therefore, what appears to be the best solution is to adopt a middle path: a combination where decentralised approaches are encouraged within a common framework of non-negotiables and non-acceptables for physical and process norms and a list of 'basic principles' for financial norms for various locations (rural, urban, cities) and contexts (migrant children, tribal children, etc.). The list of basic principles could include aspects such as not less than minimum wage for salary, market contextual provision for rent, etc.

The issue of monitoring also emerges as a major challenge in scaling up. A decentralised approach that engages both 'experts' and community may be the best solution there. If provisions are made for periodic monitoring, leading to sharing of observations with the community, leading in turn to emergence of community groups as local support groups, this could strengthen the functioning of large-scale, publicly funded initiatives as well.

Collaboration with established and proven NGO initiatives and coalitions for expert service, technical resource support and research is already not so uncommon in some states but can be further strengthened through institutionalised mechanisms.

(ii) Mobilisation of resources

Most models depend on user fees as a major source of revenue. Private donations are another major source. Considering that the nature of ECCE services is that of public good, it is not advisable to include user fees. Even if the initiative is meant for all, poor and non-poor citizens, it should be kept free, in order to retain and respect the public good orientation of the service. The state, both union and state governments, must find resources to fund ECCE initiatives through public resources.

The government of India is currently charging education and *Swachch Bharat* cess and collect large amounts of revenue that goes to an indivisible pool: it is not necessary for the union government to share that with states. Considering the important role that ECCE plays in (i) both participation and learning of children in higher classes, and (ii) health and nutrition status of individuals throughout life, a part of these resources must be systematically diverted to ECCE initiatives.

A common method increasingly used these days within the ambit of public service is the public-private partnership (PPP). The idea is that both public and private institutions come together to fund and support initiatives of joint interest. However, the experiences of PPPs in most cases, especially in the social sector, shows that public resources are diverted for private benefits. Schools and hospitals in Delhi are one set of examples which were bound by law to admit 20 per cent of students and patients free of cost. This was never implemented till the High Court intervened (Soni, 2013). And even then, it often turned into elite schools running evening schools for poor children rather than mixed schools as envisaged by the law. Also, a number of examples exist where private partners enter public schools in the name of quality improvement and end up just serving their own interests, using public resources by making it compulsory to buy all the products (learning aids etc.) that they are selling (Jha, 2016).

Therefore, considering that private entities are aiming at profit which clashes with the objective of public good-based services, it is best that such partnerships are barred. Instead, the state might think of initiating public funds for ECCE where resources can be pooled through several mechanisms including donations and mandatory contributions. This would call for the quality of public ECCE services to be reliable, on one hand, and appropriate institutional mechanisms and processes be developed on the other.

The next and final chapter will go deeper into these implications and dilemmas, along with the analysis of the present budget/cost provision for ICDS, arrive at conclusions and provide suggestions for reform in the ICDS programme and costs.

ANNEXURE 1

TOOLS FOR THE STUDY

Tools for STC-ECCE Study

Date:

Name of Field Investigator:

Name of Centre/Headquarter:

Location:

Basic details of the 'Model' as well as all data available from secondary literature to be filled in before going to them and some of these to be confirmed at site-visit:

1. **Kind: (pre-school, school readiness, etc.)**
2. **Age group catered to: (serves both boys and girls or only girls or only boys)**
3. **Management: G/P/N (Also type of NGO)**
4. **Localised (Standalone)/part of a bigger initiative/attached to school**
5. **Total number of centres:**
6. **Strengths (as documented in the literature)**
7. **Limitations (as documented in the literature)**
8. **Any other key information**

Questionnaire for managements of private/NGO programmes

A. Coverage of the Programme

1. What is the size (number of centers) and geographical spread of the programme?
2. Which groups does the programme cater to – a) low income families; b) schedule castes; c) tribals; d) minorities; e) all of a to d; e) anyone who can pay the prescribed fees?
3. What is the total number of children covered by the programme?
4. How many children are there per centre?
5. How many sections/ classes are there per centre? How are these groups divided?
6. How many children are there per classroom?
7. Has the per centre/classroom ratio of children been arrived at based on:

a. The norm of ____ number of children per class room / teacher;

b. What has been seen as practical over a period?

What is the size of the centre - _____ class rooms, _____ sq. feet play area; ___ sq. feet kitchen; _____ sq. feet storage area, etc, and whether there are variations in different centres?

Is the full enrolment capacity of the centre being utilised?

What is the difference between the enrolment and participation rates? Do you need special effort to enroll/enable participation? What are these and how successful are they?

What are the most significant challenges you face? How have you tried to solve them?

B. Organisation and Funding

12. When was the programme started?
13. Did it start here in this state or elsewhere? Tell us a little about how it evolved
14. What is the legal status of the entity? registered as a a) not-for-profit society; b) charitable trust c) minority institution; or d) for profit company
15. Are any members of parents/community/government represented in the governing body?
16. What is the funding arrangement? a) donations to corpus; b) donations / contributions for specific activities/projects; c) government aid; d) contributions in kind by community / parents; e) user fees; f) grants; and g) a combination of all /some of the above
17. If you charge fees, they are fixed in such manner that fees:

a. cover the operational (variable) cost;
b. are what you think parents can afford;
c. are what other similar providers charge?
d. do you factor in any other costs?

18. What are the fees per child paid by parents?
19. Are there any additional costs incurred by parents such as for meals, uniforms, books, play materials, etc?
20. What is the total cost of the programme? (Preferably the Annual Budget along with expenditure data if available)
21. What is the per centre cost?
22. What is the per-child cost of running the programme?
23. Do you think, at current level of funding,

. The quality of services provided is satisfactory / adequate?

a. The quality of services is somewhat inadequate but could be improved with more funds? What would be the additional cost per child?

24. What are the strengths of your programme and where do you think there still are possibilities of improvement?
25. Is there an optimum size for the programme that would help break even?
26. Is the programme scalable? What are the challenges for scaling the model?
27. Anything else you would like to share?
28.

C. Infrastructure, space and resources

29. Is the centre located on own property/rented property/property being used with permission of owner without payment?
30. If it is own property, how was the land acquired? a) purchased; b) provided free of charge by a donor; c) provided by the government / panchayat? (If there are other centres, how was land got for the other centres)
31. If land/ premise was purchased, when was it procured and at what cost?
32. How was the acquisition funded - through donations; government aid; charges to parents?
33. If premises are not owned – are they rented or provided free of charge by parent(s)/community?
34. What is monthly rent?

35. How is the expense on monthly rent met? from interest on corpus; from fees charged to parents; subsidy from government
36. Were there any specific construction costs incurred especially for making the centre child-friendly/accessible to CWSN? If yes, what were these costs?
37. What were the costs incurred for construction of toilets, water tanks, kitchen, etc.?
38. Were there any norms considered for construction of toilets (i.e., how many toilets per group of children?) Were any cost considerations taken into account for arriving at these norms?
39. How were these costs met? through donations, through fees charged to parents; through government aid, grants
40. Would construction costs become more reasonable through scaling? If yes, what would be the optimal size required for this?
41. What costs were incurred on outdoor play material
42. How has this been funded - a) through donations; b) charged to parents; c) through government aid?)
43. Would costs on outdoor play material become more reasonable through scaling? If yes what would be the optimal size required for this?
44. If nutrition is one of the services, what is provided? snacks once a day; in addition, meals once a day
45. What is provided in snacks and meals –in terms of grams/calories per child?

D. Caregiver/Staff costs and details

46. How many teaching, care staff (eg: cleaners, attendants), managerial staff (eg: receptionists and office staff) are there per centre? Additionally, how many regular staff members are involved in the programme as supervisors, coordinators, managerial etc (that may not be present at the centre)?
47. What are their respective sex, qualifications and salaries?
48. What is the ratio of each type of staff to the number of children? How were these norms arrived at? Was cost a consideration in fixing the number of staff?
49. What are the qualification requirements for each type of staff? How were these qualifications fixed? Was cost a consideration in fixing qualification criteria for each type of staff?
50. What are the salaries of each type of staff (Include any social benefits such as EPF, insurance, etc. paid by the employer)? How were these salaries decided? Was cost a consideration for fixing salaries?
51. How is the expenditure the salaries for staff been met (e.g., through donations, through charges to parents; through government aid; through grants?)
52. Can the cost of salaries be made more reasonable through scaling? If yes what would be the optimal size required for this?
53. Was there any special trainings provided to staff? (Please mention type of training, number of training, and for which staff?)
54. What is the training and support model: how many days, divided into how many spells, how and where is it delivered? Is there any follow up done? How?
55. Was the content for training prepared in-house or were specialists/consultants engaged? What were the costs incurred on development of training approach and materials? What are the training organization costs involved?

E. Organisation of classroom space

56. What is the rationale for organizing the classroom space as has been done within the programme (e.g. circular seating on mats on the floor; as various activity corners; as within

conventional elementary classrooms on desk and bench, facing the teacher, etc.)? Was cost a consideration in this decision?

57. What were costs incurred on procurement of benches, desks, mats, long work tables, etc.)?
58. If the class room furniture is rented, what is the rent paid?
59. How was the cost of class room furniture funded? through donations; through charges to parents; through government aid?
60. Would cost on classroom furniture be made more reasonable through scaling? If yes what would be the optimal size required for this?

F. Nap/Rest time

61. Is there a specific designated area for nap/rest time?
62. How is this area organized? (i.e., do they have mats, blankets, mattresses, etc.?)
63. What specific costs were incurred on providing children's nap/rest time? (E.g. on procurement of mats, blankets, etc.)?
64. How is the material divided per group / class (i.e., how many of each type of material is present for a given number of children?)
65. Was the cost of material for children's nap/rest time off-set (e.g., through donations, through charges to parents; through government aid?)
66. Has/Can costs for making provisions for children's nap/rest time be made more effective through scaling? If yes what would be the optimal size required for this?

G. Curricular and learning material

67. What kinds of learning material are used at the centre(s)? (Name/list ALL material such as books, audio-visual devices, blocks, picture cards, toys, games, recycled items etc.)
68. How have these been procured? a) developed in-house/through consultation with experts/workshops/training; b) purchased readymade; (c) donated
69. What was the cost of development (if developed) and what is the rough cost of reproduction?
70. What are the costs of procurement of the material (total and/or each type of material) per centre?
71. What is the periodicity of material development and material procurement?
72. What are the languages used in curricular material? What were the considerations while selecting the language? Does the choice of language lead to any extra costs in development and procurement of material (for example translation, printing costs)?
73. How is the material divided per group/class (i.e., how many of each type of material is present for a given number of children?)
74. How was the cost of developing/procuring material funded - through donations, through charges to parents; through government aid?
75. Would cost of developing / procuring learning material be made more reasonable through scaling? If yes what would be the optimal size required for this?

H. Pedagogy

76. What languages are used for teaching purposes in class?
77. How is the presence of more than one language handled in classes? Is language training provided to teachers? What are the costs incurred on this?
78. Are there any specific guidelines or methodology that the caregivers/teachers practice, or any fixed set of goals/outcomes which they are expected to deliver?
79. How and by whom were these guidelines developed, and what were the costs involved? Are these costs included in the training cost of teachers?

80. How was the cost incurred on developing guidelines/methodology been funded - through payment from parents; donations; government aid?
81. Are there performance incentives for caregivers/teachers? What are the costs involved in such incentives and how are they offset (donations; fee payment; government aid)?
82. How is teacher performance supervised/assessed/reviewed? Does this process involve extra costs? (e.g.: through hiring professionals, regular performance reviews, frequent workshops) Is this cost offset?
83. Are any extra provisions available/made for children with special needs (trained teachers/counsellors/curricular material/extra teaching hours)? What are the costs involved and are they offset?

I. Assessment

84. Is the progress of the child documented? In what form and how often? Are extra costs incurred, over and above the salary of the teacher/caregiver?
85. Is extra time/attention or special curriculum provided for children identified with special needs? What are the costs incurred and is it offset (fee payment by parents)?
86. Are parent-teacher meetings held? How often? What are the organizational costs incurred?

J. Parent-Centred practices

87. Is any kind of training programme/awareness camp/educational workshop conducted exclusively for parents?
88. What are the organizational costs of such programmes?
89. How were these costs financed (through payment of fee by parents, donations, aid etc.)?
90. Are home visits or home-based interventions carried out by The ECCE centre? What are the total costs incurred (travel, material, salaries, etc.)?
91. How are home visit/intervention costs financed? (through fee payment by parents, donations, government aid)
92. Can costs for home visits and interventions be optimized through alternative models? What would be the costs incurred on such alternatives? To what extent would this contribute to savings?
93. Are parents involved in management/governance/planning/teaching activities? Is this on a voluntary basis or paid work?
94. Do parents contribute in terms of material resources/funds? How does this offset overall costs?
95. How can parent involvement be scaled and optimized? How would such scaling contribute to savings?

K. Community-centred practices

96. What were the motivations behind involving the community in the ECCE centre? (personal beliefs, donor imposed, cost, resource constraints, combination of these or any other factors)
97. Does the community participate in mobilizing resources in the form of funds, curricular and infrastructural requirements, volunteers, advocacy etc. for the ECCE centre? Is cost a criteria for involving the community?
98. To what extent is the community involved in the ownership and management of the ECCE centre (teaching, caregivers, administration, governing body, financing, planning, curriculum and pedagogical design and other such forms of involvement)? Is this paid or voluntary work? What are the costs incurred? Does voluntary work contribute to savings?
99. If the ECCE centre is community-owned, what are the overall costs incurred? If it is not community-owned, but involves participation, what percentage of costs is borne by community members?

L. Auxiliary services

100. Are any other services offered at the ECCE centre, apart from those that are education-related? What are these services? (health checkups, meals, nutritional supplements, immunization, referral services etc.)
101. What is the frequency of provision of such services?
102. Are these services provided by the ECCE centre itself, or through collaborations with other organizations? How are the costs shared among collaborating organizations?
103. What is the cost per child incurred for providing these services? Is this cost offset (through fee payment by parents, donations, government aid, NGO aid, grants etc.)?

M. Monitoring and evaluation

104. Is your centre registered with some state-level authority? If yes, which one or under which Act? What were the various costs involved in the registration of the same?
105. Do you have a separate monitoring committee for your team? Who are the various members on it? Are they permanent employees/visiting board members/external agency? What are the costs incurred on hiring them?
106. Which stakeholder undertakes inspection visits for your centre? How are the various costs accounted for in the process (i.e. transport, preparing reports, etc?)
107. What kind of monitoring framework is used to evaluate the functioning of your centre? What are the various methods deployed to collect data on the same and how are the respective costs accounted for?
108. Are there any innovative tools developed by you to track the progress of your centre? Please mention both the fixed costs (for developing) and recurring costs (for maintaining) that were incurred on them.
109. Are there any mechanisms in place to address specific grievances of the beneficiaries such as a toll-free number or a specific committee? What was the cost made on implementing these mechanisms?
110. What are the various kinds of reports prepared by your centre and the costs involved in the process?

_____

Name of Organization/Centre:
Date:
Field Investigator:

- **QUESTIONNAIRE FOR PARENTS (If conducting FGD, individual answers to be recorded for questions 1-8)**

1. Name
2. Age
3. Caste/religion
4. Educational status (for both parents)
5. Occupation (both parents)
6. How many children do they have? How many boys and how many girls?
7. Age of children?
8. Are they attending age appropriate educational institutions? (List what educational provisions are used for each child - i.e., private, public, NGO, and whether ECCE
9. Rationale for selection of type of educational institutions for each child (e.g., why private/ government or NGO based institution was selected? Why pre-school/AWC/regular school was selected etc). Were there any choices available? Did parents choose to send children to centre out of their own choice, were they approached by an institution?

10. What provisions/facilities are offered by each type of institution they engage with (e.g., nutrition, health, education, parental education, community education)
11. How does the ecce institution engage parents (e.g., through regular parent-teacher meetings; parental involvement in decision making or teaching, etc. To be noted for all of their children and types of institutions they engage with)
12. Satisfaction with each type of institution utilised for each child; what are the pluses they would like to list
13. What financial costs do they have to bear for each child for pre-school education? (List by educational type, and including any form of financial cost on fees, building fees, donations, uniform, textbooks, etc)
14. 15. What other forms of contribution do parents make in relation to their children's ecce (e.g., contribute in kind, such as vegetables for mid-day meals, contribute through voluntary services at the centre, contribute in terms of material for pre-school education, etc. To be noted for all of their children and types of institutions they engage with)
15. What aspects of programme are they dissatisfied with and why? (To be noted for all their children and each type of institution they engage with)
16. What are the various responsibilities you are entrusted with for maintaining reporting data?
17. What are the expectations of the parents from the ECCE centre?

Name of Organization/Centre:
Date:
Field Investigator:

- **OBSERVATION CHECKLIST (Click photographs too, if possible)**

Sl No.	Item	Description
1	Access to centre (safe, clean, approachable)	
2.	Type of building (e.g., shed, independent house, building, independent centre within school premise, etc) Describe the building and approximate size.	
3.	No. of rooms in the centre (specify type of room - i.e., teaching-learning area, play area, kitchen, storage area, etc)	
4.	**a.** No. of classes/batches in centre **b.** How are the batches grouped? (e.g., age wise, ability wise?)	
5.	No. of children per class/batch (boys / Girls) (If multi-grade teaching present, note number of children in each group and the number and range of the age/ability groups)	

6.	**a.** How many teachers / teaching staff / childcare professionals are present per centre? **b.** Specify how many teachers / childcare professionals are present for one class/batch	
7.	Teaching staff qualifications	
8.	How many support staff are present at the centre? (caregiver staff such as helpers, cleaning attendants, nurse etc)	
9.	How many office staff / administrative staff are present per centre?	
10.	Space within each classroom(in feet)	
11.	How is the space within the classroom organised? (e.g., as different activity corners; like a regular classrooms with desks and benches; circular with children seated on mat, etc)	
12.	Is the room well lit and well ventilated? Are there displays on the walls? What kind of displays, and are they visually stimulating? How are items organized/stored within the classroom and how accessible are these to children? Describe the classroom in detail.	
13.	Space outside classroom/ play area (in feet)	
14.	Equipment available for play/gross motor stimulation	
15.	Is there a time-table and is it displayed/organisation of activities (list all kinds of activities undertaken and the time spent on each; describe how the day is organised. Include activities for school readiness, cognitive stimulation, sensory stimulation, fine and gross motor stimulation, socio-emotional learning, hygiene)	
16.	Describe/ list in detail all the learning material available (including material for school readiness, cognitive stimulation, sensory stimulation, fine and gross motor stimulation, socio-emotional learning, hygiene)	
17.	No. of toilets, type of toilets and whether separate for children and staff members (Specify if there are separate toilets for girls and boys; special toilets for CWSN)	

18.	Provisions for water (e.g., corporation water sourced by taps; borewell / well; bought from tankers; water not available within premise and has to be sourced from elsewhere) (If water sourced from elsewhere specify from what distance water has to be brought)	
19.	What provisions for drinking water are available at the centre?	
20.	**a.** Is any form of nutrition provided as part of the programme? **b.** If yes, describe what is provided?	
21.	What facilities are present to provide the nutrition component (e.g., kitchen with dimesnions; gas, utensils, plates and cups, etc; storage area for food grains)	
22.	Any provisions for nap-time (e.g., blankets, beds, pillows, etc)	
23.	Disposition of the teacher (whether friendly, strict, interaction and relationship with children)	
24.	Language(s) used in the classroom	
25.	Behaviour, comfort levels, inter-personal relationships, response to outsiders and overall impression of children in the classroom	
26.	General impression of the atmosphere within the classroom	

Organization/Centre:
Date:
Field Investigator:
Personnel Questionnaire (All types of Caregiving staff)

1. Name
2. Gender
3. Age
4. Caste/religion
5. Profession and assigned duties/responsibilities (Caregiver/teacher/administrative/managerial/cleaner/attendant etc)
6. Salary
7. Work hours/timing/days
8. Years of service in this role and at this particular institution
9. Type of employment (permanent/contractual/daily wage/voluntary)
10. Educational and Professional Qualifications
11. Selection process (Criteria/application/interview/demonstration of skills etc)
12. Employment benefits (medical insurance, EPF, housing, incentives etc)
13. Does the employee belong to the local community, if yes, was there any specific rationale behind selecting a community member? Was cost a consideration?
14. Did the employee undergo any training process prior to induction? What was the duration and content of the training? Was there any hands-on component? Is the training process a continuous one, if yes, what is the frequency?
15. Is the performance of the employee assessed or reviewed in any manner? With what frequency? Are there any outcome-based incentives?
16. How satisfied is the employee with the job and the functioning of the ECCE centre? What are they dissatisfied with and why?
17. What are the challenges perceived by the employee at the ECCE institution? In what ways are/can these challenges be dealt with?

Further Questions for Teachers (skip these questions for non-teaching staff)

18. What languages is the employee familiar with? Which languages are employed in the classroom/crèche?
19. Do all enrolled children attend regularly? If not, what are the possible reasons for non-participation?
20. How many children are present in one class? What is the age distribution within the class? Are the children divided into groups? What is the basis for grouping children in a particular manner?
21. What are the facilities/services for children between 0-3 years of age and 3-6 years of age?
22. In what ways is the employee involved in the provision of these services (care giving, teaching activities, health checkups, nutrition, immunization etc)?
23. What is the curriculum and curricular material available for children? Is the employee involved in designing the prescribed curriculum? How much autonomy does the employee feel they can exercise in framing curriculum or obtaining curricular material according to the needs of the children?
24. What are the teaching strategies employed in class? Are these strategies prescribed beforehand, or developed/improvised during the in-class process by the teacher? What is the rationale behind specific strategies (games/activities etc)?
25. What does the daily routine within a classroom comprise of? Is there a process of planning (daily, weekly, yearly) for classroom activities? Who is involved in this process?

26. Is the progress of each child monitored/documented? Are tests/exams held? What are the indicators along which progress is measured?
27. Is information regarding child's progress shared with parents? If yes, how frequently?
28. Does the caregiver interact with the parents? How frequently? What is the rationale behind the engagement? What are the concerns of parents, if any, and how are these addressed by the teacher?
29. What is the kind of diversity present in class (language, socio-economic background, abilities etc)? Does the diversity pose any challenges? How does the caregiver cope with these challenges?
30. Is there a process for identifying individual developmental needs of children? What is the follow-up strategy in such cases?
31. Are there children with special education needs in the classroom? What are the provisions available for such children?
32. How are the children and their interactions supervised in case any problems arise?
33. Does the caregiver conduct home visits or organise interaction sessions with parents? What is the rationale behind such a programme? Are any home-based interventions carried out? If yes, what kind?
34. Is a helper assigned to the caregiver in the classroom? What are the responsibilities of the helper?
35. Does the caregiver play a role in budgeting and allocation of resources in the ECCE centre?
36. Does the caregiver feel that the children are adequately provided for at the ECCE institution? In what ways could it be improved?
37. What are the various kinds of records and registers that you are expected to maintain for monitoring the progress of your centre?
38. Does your centre have inspection visits? If yes, by whom and how often? What kind of reporting mechanisms are in place to be accountable to these inspections?
39. What is the nature of the relationship shared between the inspector/supervisor and the caregiver/teacher?

Documents to be viewed / collected

1. Resource materials copies, if possible/ (if not, to be viewed and noted – quality parameters against norms)

2. Children's progress / assessment reports or diaries (to be viewed to see how these are maintained)

3. Activity Reports (if prepared)

4. Monitoring formats / data, if available

5. Cost details (Accounts section) / balance sheet

6. Evaluation / review reports

7. List and Details of Staff Members

8. Pamphlets, Brochures, Advertisements

9. Anything else that may provide insight into the functioning of the centre

ANNEXURE 2

Model-specific matrices

UPCS: Evolution of process/component framework- Cost relationship

Processes / components	Cost heads								
	Rent/ land – building	**Capital goods Facilities (furniture and Equipment)**	**Salary**	**Nutrition and Auxiliary Facilities**	**Materials (teaching learning) & curriculum**	**Training**	**Community/ Parent Centred Practices**	**Travel**	**Misc.**
Teaching	Building Rent (37848)	Basic Furniture, Material and Indoor play material (17784)	Salaries of Ground Staff (Caregiver, Teacher, Principal and Helper) (213772)		Teaching learning materials (32832)				Electricity and Water Charges and Repair and maintenance (27,892)
Playing									
Eating				Food Material and Utensils (193800)					
Sleeping		Basic furniture for naptime (12768)							

Health				Doctor Visits, First Aid Kit etc (44415)					
Teacher training**						Training include: training resource, material and stipend to trainee/Trainer (52896)			
Monitoring									
Managing			Salaries of Management Staff (Admin, Accountant etc) (167762)						
Community/Parent Mobilisation							community communication (which includes parent-teacher meetings) (20000)		
Total	**37848**	**30552**	**381534**	**238215**	**32832**	**52896**	**20000**		**27892**

CUSP (1) : Evolution of process/component framework-cost relationship

Processes / components	Cost heads								
	Rent / land – building	Capital goods Facilities (furniture and Equipment)	Salary	Nutrition and auxiliary facilities	Materials (teaching learning) and curriculum	Training	Community/ parent-centred practices	Travel	Misc.
Teaching	Building rent (26166)	Class Furniture, material, equipment and vehicle etc. (67009)	Salaries of ground staff (Teacher, Principal and Helper) (370304)		Learning material include TLM and books (50338)'**Curriculum-Data Not Available**				Electricity and water charges and maintenance and repairs (58618)
Playing	Play area rent (8811)								
Eating	Part of building rent			No provision					
Sleeping	No provision								
Health									
Teacher training**									
Monitoring									
Managing			Salaries of management staff (admin, accountant etc) (67140)						
Welfare			Welfare expense (PF,ESI etc.) (5295)						
Community/Parent Mobilisation									
Total	**34277**	**67009**	**442739**		**50338**				**58618**

CUSP (2) : Evolution of process/component framework-cost relationship

Processes / components	Cost heads								
	Rent / land – building	Capital goods Facilities (furniture and equipment)	Salary	Nutrition and auxiliary facilities	Materials (teaching learning) and curriculum	Training	Community/ parent-centred practices	Travel	Misc.
Teaching	Building rent (85765)	Class Furniture, material, equipment and vehicle etc. (239610)	Salaries of ground staff (teacher, Principal and helper) (1213775)		Learning Material include TLM and Books (69329) **Curriculum- Data not available**				Electricity and water charges and maintenance and repairs (192137)''
Playing	Play area rent (28881)								
Eating	Part of building rent			No provision					
Sleeping	No provision								
Health									
Teacher training**									
Monitoring									
Managing			Salaries of management staff (admin, accountant etc) (220070)						
Welfare			Welfare expense (PF,ESI etc.) (17356)						
Community/Parent Mobilisation									
Total	**114646**	**239610**	**1451201**		**69329**				**192137**

CBCDC: Evolution of process/component framework-cost relationship

Processes / components	Rent / land – building	Capital goods Facilities (furniture and Equipment)	Salary	Nutrition & Auxiliary Facilities	Materials (teaching learning) and curriculum	Training	Community/ parent-centred practices	Travel	Misc.
Teaching	Building rent (Inclusive of Kitchen area) **(17773)**	Basic furniture, material **(Data not available)**	Salaries of ground staff (teacher, supervisor and helper) **(105000)**		Teaching-learning materials and Curriculum development cost **(Data not available)**				
Playing	Play Area Rent **(7200)**	Play Material **(Data not available)**							
Eating				Food Material **(28080)**					
Sleeping		Furniture for nap time **(Data not available)**							
Health									
Teacher training**			Trainers remuneration **(Data not available)**			Training material **(Data not available)**			
Monitoring									
Managing									
Welfare									
Community/ Parent Mobilisation									
Total	**24973**		**105000**	**28080**					

UBM: Evolution of process/component framework-cost relationship

Processes / components	Cost head								
	Rent / land – building	**Capital goods Facilities (furniture and equipment)**	**Salary**	**Nutrition and auxiliary facilities**	**Materials (teaching learning) and curriculum**	**Training**	**Community/ parent- centred Practices**	**Travel**	**Misc.**
Teaching	Building rent **(38910)**	Basic furniture, material and indoor play material (1200)	Salaries of ground staff (teacher, helper) (57600)		Teaching-learning materials (10000) **Curriculum – Data not available**				Repair and maintenance (3000)
Playing									
Eating				Food Material (No Provision)					
Sleeping		Basic furniture for naptime (700)							
Health									
Teacher training**			Trainers remuneration is part of management staff salary			Training include: trainee food and transportation (5700)			
Monitoring									
Managing			Salaries of management staff (supervisors etc) (10880)						
Community/ Parent Mobilisation			Part of teachers salary						

Total	**38910**	**(1900)**	**68480**		**10000**	**5700**			**3000**

UCM: Evolution of process/component framework-cost relationship

Processes / components	**Cost head**								
	Rent/land – building	**Capital goods Facilities (furniture and equipment)**	**Salary**	**Nutrition and auxiliary facilities**	**Materials (teaching learning) and curriculum**	**Training**	**Community/ parent-centred Practices**	**Travel**	**Misc.**
Teaching	Building rent **(37531)**	Basic furniture, material and indoor play material **(1000)**	Salaries of Ground Staff (Teacher , Helper) **(54000)**		Teaching-learning materials **(3000)** **Curriculum – Data not available**				Repair and maintenance **(1000)**
Playing									
Eating				Food material **(93600)**					
Sleeping		Basic furniture for naptime **(600)**							
Health				Doctor visits, First Aid Kit etc **(2000)**					
Teacher training**			Trainers remuneration is part of management staff salary			Training include: trainee Food and transportation **(2100)**			
Monitoring									
Managing			Salaries of management staff (supervisors etc)						

			(21075)						
Community/ Parent Mobilisation			Part of teachers' salaries						
Total	**37531**	**1600**	**75075**	**95600**	**3000**	**2100**			**1000**

SSUP: Evolution of process/component frameworkcost relationship

Processes / components	**Rent / land – building**	**Capital goods Facilities (furniture and equipment)**	**Salary**	**Nutrition and auxiliary facilities**	**Materials (teaching learning) and curriculum**	**Training**	**Community/ parent-centred practices**	**Travel**	**Misc.**
Teaching	Building rent (272000)	Basic Furniture, material (96000)	Salaries of ground Staff (teacher , helper) (1295955)		Teaching-learning materials (Books and Notebooks) and indoor Play Material (158100+15000) **Curriculum-Data not available** (developed in-house)				Repair and maintenance and water and electricity charges (100000)
Playing	Play area /open space rent (239760)	Play material (80000)							
Eating				Expenditure on snacks (1860)					
Sleeping		Basic furniture for naptime (4800)							

Health								Bus rental charges for field visits/ Health Check-ups (16000)	
Teacher training**			Trainers and supervisors remuneration (42093)			Guest Lecture fees (1000)			
Monitoring									
Managing			Salaries of management staff (Accountant) (275001)						
Welfare			Welfare expense (PF,ESI etc) (66030)						
Community/ parent mobilisation							Cost incurred on guest lecture by a psychologist (12000)		
Total	**511760**	**180800**	**1679079**	**1860**	**173100**	**1000**	**12000**	**16000**	**100000**

LUPS: Evolution of Process/component framework-cost relationship

<table>
<tr><th>Processes/ components</th><th>Rent/land – building</th><th>Capital goods Facilities (furniture and equipment)</th><th>Salary</th><th>Nutrition and auxiliary facilities</th><th>Materials (teaching learning) and curriculum</th><th>Training</th><th>Community/ parent-centred practices</th><th>Travel</th><th>Misc.</th></tr>
<tr><td>Teaching</td><td>Building rent (345793)</td><td>Basic Furniture, material (68372)</td><td>Salaries of Ground staff (teacher, helper) (942632)</td><td rowspan="5">No provision</td><td>Teaching learning materials (books and notebooks) & uniform (383600)
Curriculum- (content development and execution)
(46154)</td><td></td><td rowspan="5">No provision</td><td>Travel Cost (6558)</td><td rowspan="2">- Repair and maintenance and water and electricity charges.
- Other office expenses include office supplies, telephone, internet charges etc
- Misc. expenses (198578)</td></tr>
<tr><td>Playing</td><td>Play area rent (25804)</td><td>Play material</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Eating</td><td colspan="3"></td><td></td><td colspan="2"></td></tr>
<tr><td>Sleeping</td><td colspan="3">Basic furniture for naptime (No Provision)</td><td></td><td colspan="2"></td></tr>
<tr><td>Health</td><td colspan="3"></td><td></td><td colspan="2"></td></tr>
</table>

Teacher training**						Trainer's remuneration and material cost (34154)				
Monitoring										
Managing			Salaries of management staff (Accounting, audit services etc.) (107619)							
Welfare										
Community/ Parent Mobilisation										
Total	**371597**	**68372**	**1050251**		**429754**	**34154**		**6558**	**198578**	

UPPS: Evolution of process/component framework-cost relationship

Processes/ components	Rent / land – building	Capital goods Facilities (furniture and equipment)	Salary	Nutrition and auxiliary facilities	Materials (teaching learning) and curriculum	Training	Community/ Parent-centred practices	Travel	Misc.

Teaching	Building rent, inclusive of lease (46913)	Basic Furniture, material (30608)	Salaries of ground staff (teacher, supervisor and helper) (1815500)		Teaching-learning materials (1648) Curriculum- (19000)				Repair and maintenance and water and electricity charges and other misc. expenses (235268)
Playing		Play Material							
Eating									
Sleeping	No provision								
Health									
Teacher training**			Is part of supervisor salary						
Monitoring									
Managing			Salaries of management staff (accountant) (162000)						
Welfare			Welfare expense (PF, ESI etc) (271500)						
Community/Parent mobilisation							Celebrations and functions (51776)		
Total	**46913**	**30608**	**2249000**		**20648**		**51776**		**235268**

ANNEXURE 3

Assumptions and estimation of each component of all the models

UPCS

The recurring cost in the analysis consists of the sum total of six different components viz, i) Infrastructure, Space and Resources; ii) Salaries (teachers/caregivers/staff); iii) Nutrition and auxiliary services; iv) Learning material and curriculum development; v) Teaching/Pedagogy Training vi) Parent/Community-centred practices. *As per our analysis, the cost required to run an ECCE centre (which include UCM and balwadi) is Rs 806329 per annum and per child cost is Rs 21219 per annum (if number of students per ECCE centre are 38). Details of method used for estimating unit cost (per centre and per child is given below) is given below.*

Component-wise cost calculation:

1- Infrastructure, Space & Resources

UPCS		
Unit	**Infrastructure, Space and Resources**	
Per centre per annum	**Recurring costs**	
Per centre per annum	a) Building rent	37848
Per centre per annum	b) Rental value of basic class furniture, material, equipment and vehicle etc.	17784
Per centre per annum	c) Rental value of outdoor play material	
Per centre per annum	d) Rental value of basic furniture for naptime	12768
Per centre per annum	e) Electricity and water charges	27,892
Per centre per annum	f) Cost incurred in maintenance and repairs	
Per centre per annum	Playground rent	
	Others, If any	
	Total	**96292**
Per centre per annum	Total no. of students in ECCE Centre	38
Per centre per annum	**Per child per annum (ECCE centre)**	**2534**

For calculating infrastructure, space and resource per centre cost for the UPCS, data is gathered from costing and management survey and UPCS cost benefit analysis. UPCS model caters for student in three age groups i.e. UCM 0-3-year olds, balwadi 3-5-year olds and bridge course for 6-12-year-olds. Thismeans there are three classes in the centre, out of which (i.e. UCM and balwadi) two are specific to pre-school sections. Therefore, two third of the space- related costs are attributed to ECCE centres.

UPCS run 14 centres and provides holistic child care to 801 children (on an average, each centre has 57 children) which includes bridge course students. . For separating bridge course students from UCM and balwadi a proportionate formula is used.

Total number of students in bridge course= $\frac{\text{Number of Children Under Brdige Course}}{\text{Total No.of students in Classroom}}$ *Total No. of Students = $\frac{25}{74}$*801= 271

Average number of students under ECCE centre = $\frac{\text{Total Number of Student}-\text{Total Numer of Students Under Brdige Course Programme}}{\text{No.of Centres}}$ =

$$\frac{801-271}{14} = = \frac{530}{14} = 38$$

For the osting analysis for the UPCS ECCE centre, only the pre-primary group is considered which is the0-6 age group.

For calculating ECCE centre cost = $\frac{\text{Total Cost on Recurring Component}}{\text{Total No.of Classes in the Centre/School}} * \text{Total No. of Classes under ECCE Centre} = \frac{\text{Total Cost on Recurring Component}}{3} * 2$

For cost analysis of the UPCS ECCE centre, only the pre-primary group is considered which is the 0-6 age group.

Building rent = $\frac{\text{Total cost incurred on building Rent}}{3} * 2 = \frac{56772}{3} * 2 = 37848$

Rental value of setup cost = $\frac{\text{Total cost incurred on setting up UPCS Centre}}{3} * 2 = \frac{56772}{3} * 2 = 17784$

Rental value of basic furniture for naptime = $\frac{\text{Total cost incurred on furniture for naptime}}{3} * 2$

$$= \frac{19152}{3} * 2 = 12768$$

Electricity and water charges = $\frac{\text{Total cost incurred on Electricity and Water}}{3} * 2 = = \frac{41838}{3} * 2 = 27892$

2. Salaries (Teachers/Caregivers/Staff) and allowance

Unit	Salaries (Teachers/Caregiver/Staff) and Allowance	UPCS
Per centre per annum	Salaries of ground staff (teacher, supervisor, helper)	213772
	Salaries of management staff (admin, accountant etc)	167762
	Welfare expenses	
	Others, If any	
	Total	381534
	Total no. of students in ECCE Centre Per Annum	38
	Per child per annum (ECCE centre)	**9538**

For calculating salaries and allowance per centre cost for the UPCS, data is gathered from the UPCS cost benefit analysis and salaries and ground and management staff is used for the calculation. For our estimation, two third of salary allowances-related cost are attributed to ECCE centres. This assumption for computing costs incurred on salaries and allowances is similar to one which we have outlined in first section i.e. Infrastructure, space and resources.

Salaries include salaries of teachers, support staff, supervisors, management staff and MIS-related costs. Any other staff welfare measures are part of the overall salary component. Wherever separate salaries are available for the ECCE sections, that is what is included. In the absence of that, it has been assumed to be the same for teachers in all classes and estimated accordingly for the two age groups (UCM and balwadi). In this case, we have used total expenditure incurred on salaries and allowances as separate salaries for ECCE sections were not available and it has been assumed to be same for teachers in all classes.

For costing analysis UPCS ECCE centre only, the pre-primary group is considered as the 0-6 age group.

Cost incurred on salaries and allowances (ECCE centre) = $\frac{\text{Total cost on Salaries and Allowance}}{\text{Total No.of Classes in the Centre/School}} * \text{Total No. of Classes under ECCE Centre}$

$$= \frac{\text{Total cost incurred on Salaries and Allowance}}{3} * 2$$

Cost incurred on ground staff salary = $\frac{\text{Total cost incurred on Salaries}}{3} * 2 = \frac{320658}{3} * 2 = 213772$

Cost incurred on management staff salary = $\frac{\text{Total cost incurred on Salaries}}{3} * 2 = \frac{251643}{3} * 2 = 167762$

3. Nutrition and auxiliary services

Unit	Nutrition and auxiliary services	UPCS
Per Child per annum	Nutrition and supplementary services	193800
	Auxiliary services	44415
	Others, If any	
	Total	238215
	Total no. of students in ECCE Centre	38
	Per child per annum (ECCE Centre)	**5955**

Data for nutrition and supplementary services and auxiliary services component is collected from UPCS management interviews. The nutrition and supplementary service subhead includes expenditure on food material and fuel whereas auxiliary services include expenditure on health i.e. doctors visit, check-ups, medicine, first aid kits and weighing machines. For our estimation two thirds of nutrition and auxiliary service-related costs are attributed to ECCE centres. This assumption for computing costs incurred on nutrition and auxiliary services is like one which we have outlined in first section i.e. Infrastructure, space and resources.

Calculations:

Cost incurred on Nutrition and auxiliary services (ECCE centre) = $\frac{\text{Total cost incurred on Nutrition and Auxiliary Services}}{\text{Total No.of Classes in the Centre/School}} * \text{Total No. of Classes under ECCE Centre}$

$\frac{\text{Total cost incurred on Nutrition and Auxiliary Services}}{3} * 2 = \frac{290700 + 66622}{3} * 2 = 238215$

-4. Learning aterial and curriculum development

Unit	Learning material and curriculum development	UPCS
Per Centre Per Annum	Cost incurred on TLM (Which also includes PSE kit and flexi funds) a+b+c+d	32832
	a) Books	
	b) Audio visuals	

	c) TLM	
	d) Others	
	Cost incurred in curriculum development	
	Others, If any	
	Total	32832
	Total no. of students in ECCE Centre	38
	Per child per annum (ECCE Centre)	**821**

Data for learning material is collected from UPCS cost benefit analysis document. The Learning material sub head include expenditure on plastic blocks, puzzles, crayons, paint, paper, coloured paper, picture cards, mirror, strainer, strings, beaded strings, slate, chalks, blackboard, picture blocks, stones, wooden pieces, plastic balls, cloth balls, , worksheets, sandpit, chart paper, comb, hair oil for balwadi and plastic toys, plastic cars, plastic rings, plastic slide, mini plastic scooters, dhol, picture posters, printed posters, ball, picture books, paper, crayons, chart paper for UCM. Data for curriculum development was not available.

In our estimation, two thirds of learning material-related costs are attributed to ECCE centres. This assumption for computing costs incurred on learning material and curriculum development is like the one which we have outlined in first section i.e. Infrastructure, space and resources.

Costing analysis for UPCS ECCE centre only pre-primary group is considered which is between 0-6 age group.

Cost incurred on Learning Material (ECCE centre) = $\frac{\text{Total cost incurred on Learning Material}}{\text{Total No.of Classes in the Centre/School}} * \text{Total No. of Classes under ECCE Centre}$

$$\frac{\text{Total cost incurred on Learning Materials}}{3} * 2 = \frac{49284}{3} * 2 = 32832$$

5. Teaching/Pedagogy Training

Unit	Teaching/Pedagogy Training	UPCS
Per centre per annum	Training	52896
	Others, If any	
	Total	52896

	Total no. of students in ECCE	38
	Per Child Per Annum (ECCE Centre)	**1392**

Data for Teaching/Pedagogy Training is collected from the UPCS cost benefit analysis document. In case of the UPCS, annual costs incurred on training is used for computing per centre training cost. Total training cost includes costs for training resource, material and stipend to trainees. Assumption for computing cost incurred on training (ECCE centre) is similar to one which we have outlined in first section i.e. Infrastructure, space and resources.

For the analysis for UPCS centre, only pre-primary group is considered which is between 0-6 age group.

Cost incurred on Teaching/Pedagogy Training (ECCE centre) = $\frac{\text{Total cost of Training}}{\text{Total No.of Classes in the Centre/School}} * \text{Total No. of Classes under ECCE Centre}$

$$\frac{\text{Total cost of Training}}{3} * 2 = \frac{121148}{3} * 2 = 80765$$

6. Parent/Community-centred practices

Unit	Parent/Community-centred practices	UPCS
Per Centre per annum	Cost Incurred on parent-centred training programmes/ Cost incurred on PTM	20000
	Cost Incurred on community-centred training programmes	
	Others, If any	
	Total	20000
	Total no. of students in ECCE centre per annum	38
	Per child per annum (ECCE centre)	**526**

The total costs for parent/community-centred practices include the community communication cost (which includes parent-teacher meetings). Per centre data is gathered from the UPCS cost analysis. The assumption for estimating costs incurred on parent/community-centred practices (ECCE centre) is similar to the one we have used in first section i.e. Infrastructure, space and resources.

For the analysis of the UPCS centre, only the pre-primary group (0-6 age group) is considered.

Cost incurred on parent/community-centred practices (ECCE centre) = $\frac{\text{Total cost incurred on parent/community centered practices}}{\text{Total No.of Classes in the Centre/School}} * \text{Total No. of Classes under ECCE Centre}$

$$\frac{\text{Total cost incurred on parent/community centered practices}}{3} * 2 = \frac{30000}{3} * 2 = 20000$$

CUSP (1) & (2)

The recurring cost in the analysis consists of the sum total of six different components viz, i) Infrastructure, Space and Resources; ii) Salaries (teachers/caregivers/ staff); iii) Nutrition and auxiliary services; iv) Learning material and curriculum development; v) Teaching/Pedagogy Training; vi) Parent/community-centred practices. As per our analysis of this model cost required to run a CUPS (1) and CUSP (2)ECCE centre is Rs (653681) (2066924) per annum and per child cost is Rs (9338) (29527) per annum (if number of student per ECCE centre are 70). For this analysis, only three components were considered as for other head data was not available or there were no provisions. Details of method used for estimating unit cost (per centre and per child) are given below.

Component-wise cost calculation

1- Infrastructure, space and resources

Unit	Infrastructure, space and resources	CUSP (1)	CUSP (2)
	Non- recurring costs		
	Land	306070	1094431
	Cost of building	893193	3193841
	Total (land+ building))	1199262	4288271
	a) Cost incurred on purchase of basic class furniture, material, equipments and vehicle etc	566299	2024948
	b) Cost incurred on purchasing of outdoor play material		
	c) Cost incurred on purchase of basic furniture (mats) for nap time		
	Total	1765561	6313220

	Recurring costs		
Per Centre Per Annum	a) Building rent	26166	85765
	b) Rental value of basic class furniture, material, equipment and vehicle etc.	67009	239610
	c) Rental value of outdoor play material		
	d) Rental value of basic furniture for nap time		
	e) Electricity and water charges	16185	53051
	f) Cost incurred in maintenance and repairs	42433	139086
	Playground rent	8811	28881
	Total	**160604**	**546394**
	Total no. of students in ECCE centre per annum	**70**	**70**
	Per child per annum (ECCE Centre)	**2294**	**7806**

CUSP is running four programmes (Learning Centre, Composite School, Father-Daughter Alliance and Education on Wheels) under their educational heads. CUSP expenditure data was available at overall project level. So, in our analysis, costs are divided among each programme in proportion to number of students under each programme.

Share of each programme in total expenditure

Programme name	Share (in %)	Number of students enrolled	Total no. of students
CUSP (1)(LKG-II)	33	1609	4839
CUSP (2)(LKG-X)	59	2834	
Father-Daughter Alliance	6	298	
Education on Wheels	2	93	

Note: For our analysis programmes with ECCE model are considered i.e. CUSP (1) and CUSP (2)

In the CUSP case, fixed assets like buildings and furniture were not rented and therefore for estimating the annual used value of the assets, imputed rent is calculated. In this case, fixed assets (buildings, furniture etc.) were not pre-existing and have been created just for the ECCE purpose. So, we have only used

deprecation rates for calculating the rental value of the assets. The rental value of basic class furniture, material, equipment and vehicle include furniture and fixtures, electrical fittings and equipment, computers and equipment, vehicles, programme training equipment and buildings under construction.

The CUSP (CUSP (1)) model caters to students between LKG to Class II. This means there are four classes in the school, of which two (i.e. LKG and UKG) are specific to pre-school sections. Therefore, half of the space-related costs are attributed to EECE sections.

The CUSP (CUSP (2)) model caters to student between LKG to Class X. This means there are twelve classes in the school, out of which two (i.e. LKG and UKG) are specific to pre-school sections. Therefore, one sixth (i.e.2/12=1/6) of the space-related costs are attributed to EECE sections.

For calculating ECCE centre cost: $\frac{\text{Total Cost incurred on recurring Component}}{\text{Total No.of Classes in the Centre/School}} * \text{Total No. of Classes under ECCE Centre}$

CUSP (1) : $\frac{\text{Total Cost incurred on recurring Component}}{4} * 2$

CUSP (2) : $\frac{\text{Total Cost incurred on recurring Component}}{12} * 2$

Total land Cost: 22259607

CUSP (1) Share =Total land cost*CUSP (1) share

= 22259607*0.33= 7345670

CUSP (2) Share =Total land cost*CUSP (2) share

= 22259607*0.59=13133168

Per CUSP (1)share-= $\frac{\text{Total land Cost}}{\text{Total No.of Centres}} = \frac{7568266}{11}$= 667788

Per CUSP (2)share-= $\frac{\text{Total land Cost}}{\text{Total No.of Schools}} = \frac{13133168}{2}$= 6566584

Total building cost: 64959474

CUSP (1)Share = Total building cost*CUSP (1) share

= 64959474*0.33 = 21436626

CUSP (2) share =Total building cost*CUSP (2) share

= 64959474*0.59 = 38326090

Per CUSP (1) share-= $\frac{\text{Total land Cost}}{\text{Total No.of Centres}} = \frac{21436626}{11}$= 1948784

Per CUSP (2) share-= $\frac{\text{Total Building Cost}}{\text{Total No.of Schools}} = \frac{38326090}{2}$= 19163045

Per Centre/school total cost = building + land

Learning centre total cost = 1948784+ 667788 = 2616572

CUSP (2)Total cost = 19163045+ 6566584= 25729629

Building rent (learning centre) = $\frac{Total\ Asset\ Worth * Rate\ of\ Depreciation}{100}$

$= \frac{2616572 * 2}{100}$ = 52331

Building rent (composite school) = $\frac{Total\ Asset\ Worth * Rate\ of\ Depreciation}{100}$

$= \frac{25729629 * 2}{100}$ = 514593

CUSP (1) (ECCE): $\frac{\text{Total Cost incurred on recurring Component}}{4} * 2$

$= \frac{552331}{4} * 2 = 26166$

CUSP (2) (ECCE): $\frac{\text{Total Cost incurred on recurring Component}}{12} * 2$

$= \frac{514593}{12} * 2 = 85765$

Similar method is used for calculating rental value of other fixed assets

2- Salaries (Teachers/Caregiver/Staff) and Allowance

Unit	Salaries (Teachers/Caregiver/Staff) and Allowance	CUSP (1)	CUSP (2)
Per centre per annum	Salaries of ground staff (teacher, Principal and helper)	370304	1213775
	Salaries of management staff (admin, accountant etc)	67140	220070
	Welfare expenses	5295	17356
	Total	**442739**	**1451201**
	Total no. of students in ECCE centre per annum	**70**	**70**
	Per child per annum (ECCE centre)	**6325**	**20731**

For our estimation half CUSP (1) and one-sixth CUSP (2) of salaries allowances related cost are attributed to ECCE centres. This assumption for computing costs incurred on salaries and allowances is similar to the one which we have outlined in the first section i.e. Infrastructure, space and resources. Salaries include salaries of teachers, , support staff, admin, accountant etc. whereas Welfare expenses including any other staff welfare measures over and above the wages. Welfare services in this case include employer's contributions towards PF and gratuity. Wherever separate salaries are available for the ECCE sections, these are included. In the absence of that, it has been assumed to be the same for teachers in all classes and estimated accordingly for the three years. In this case, we have used total expenditure incurred on salaries and allowances as separate salaries for ECCE sections were not available and it has been assumed to be same for teachers in all classes.

Expenditure incurred on salaries and allowances (ECCE centre): $\frac{\text{Total expendtiure on Salaries and Allowance}}{\text{Total No.of Classes in the Centre/School}} * \text{Total No. of Classes under ECCE Centre}$

Total salary: 24686948

CUSP (1) Share =Total land cost*CUSP (1) share

=24686948*0.33 = 8146693

CUSP (2) share =Total land cost*CUSP (2)Share

= 24686948*0.59 = 14565299

Per CUSP (1) share-= $\frac{\text{Total Salary}}{\text{Total No.of Centres}} = \frac{8146693}{11}$ = 740608

Per CUSP (2) share-= $\frac{\text{Total Salary}}{\text{Total No.of Schools}} = \frac{14565299}{2}$ = 7282650

CUSP (1) = $\frac{740608}{4} * 2$ = 370304

CUSP (2) = $\frac{7282650}{12} * 2$ = 1213775

Similar method is used for estimating management personnel salaries and welfare expenses.

3- Nutritional and auxiliary Services

There are no provisions for nutrition and auxiliary services

4- Learning material and curriculum development

Unit	Learning aaterial and curriculum development	CUSP (1)	CUSP (2)
	Costs incurred on TLM (which also Include PSE kit and flexi funds) a+b+c+d	50338	69329
Per centre per annum	a) Books	42000	42000
	b) Audiovisuals		
	c) TLM	8338	27329
	d) Others (notebooks, shoes, uniforms and bags, etc.)		
	Costs incurred in curriculum development		
	Total	**50,338**	**69329**
	Total no. of students in ECCE Centre	**70**	**70**
	Per child per annum (ECCE Centre)	**719**	**990**

Data for TLM and books is collected from interviews with the anagement and income and expenditure documents. TLM minor heads include expenditure on periodicals and stationery and books. Minor heads include expenditure incurred on purchase of course books for three subjects - Maths, English and Hindi - and notebooks. (taken notebooks as 200 and textbook as 400). The assumption for estimating ECCE centre cost is similar to the one we have used in the first section ie. Infrastructure, Space and resource and the aalaries and allowances component.

Expenditure incurred on learning material (ECCE centre): $\frac{\text{Total expendtiure on Learning Materials}}{\text{Total No.of Classes in the Centre/School}} * \text{Total No. of Classes under ECCE Centre}$

CUSP (1) (ECCE)= $\frac{\text{Total expendtiure on Learning Materials}}{4} * 2$ CUSP (2) (ECCE)= $\frac{\text{Total expendtiure on Learning Materials}}{12} * 2$

CUSP (1) (ECCE)= **Cost on TLM + Books** CUSP (2) (ECCE)=Cost on TLM + Books

Cost on books = Total no. of students per centre*cost incurred on books and notebooks = 70*600 =42000

CUSP (1) (ECCE) = $\frac{16675}{4} * 2$ = 8338 +42000**= 50338 **CUSP (2) (ECCE) =** $\frac{163972}{12} * 2$ = 27329+42000**= 69329

***Expenditure is borne by parents and expenditure on books is calculated using per child cost.*

5- Teacher/Pedagogy Training

Unit	Pedagogy Training	
Per centre per annum	Training	Data not available
	Total	
	Total no. of students in ECCE centre	
	Per child per annum (ECCE centre)	

6- Parent/Community-centred practices

Unit	Parent/community centred practices	
Per centre per annum	Cost Incurred on parent-centered training programmes/ Costs incurred on PTM	Data not available
	Cost incurred on community-centered training programmes	
	Total	
	Total no. of students in ECCE Centre	
	Per child per annum (ECCE Centre)	

CBCDC

The recurring costs in the analysis consists of the sum total of six different components viz, i) Infrastructure, Space and Resources; ii) Salaries (Teachers/caregivers/staff); iii) Nutrition and auxiliary services; iv) Learning Material and Curriculum Development; v) Teaching/Pedagogy Training; vi) Parent/community-centred practices. As per our analysis of this model, the cost required to run a CBCDC ECCE centre is Rs.158053 and per child cost is Rs.10537 per annum (if number of student per UBM are 15). For this analysis, only three components were considered as for the other heads data was not available or there were no provisions. Details of the method used for estimating the unit cost (per centre and per child) are given below

1- Infrastructure, space and resources

Unit (in rupees)	Infrastructure, space and resources	CBCDC
	Non-recurring costs	
	Land	104000
	Cost of building	118160
	TOTAL (land+ building))	222160
	a) Cost incurred on purchase of basic class furniture, material, equipment and vehicle etc	
	b) Cost incurred on purchasing of outdoor play material	
	c) Cost incurred on purchase of basic furniture (mats) for nap time	
	d) Play area	120000
	Total	
	Recurring costs	
	a) Building rent	17773
	b) Rental value of basic class furniture, material, equipment and vehicle etc.	
	c) Rental value of outdoor play material	
	d) Rental value of basic furniture for naptime	
	e) Electricity and water charges	
	f) Cost incurred in maintenance and repairs	
	Playground rent	7200
	Total	**24973**
	Total no. of students in ECCE centre per annum	**15**
Per centre per annum	**Per child per annum (ECCE centre)**	**1665**

CBCDC is a standalone pre-school. In this case, land is donated by the community and labour and masonry charges for construction of building are also borne by the community members (40,000) and an NGO for material (60,000). For estimating current prices of different real estate agencies in rural areas (Odisha) are used like Magicbricks, 99acres, Sulekha etc and an average value is used.

However, In CBCDC, case assets like buildings are not rented and therefore for estimating the annual used value of the assets imputed rent is calculated. In this case, land is donated by the community and for construction of building labour and masonry charges are borne by the community. However, these buildings and land may have alternative uses and the decision to build or use it for education may mean the sacrifice of an opportunity cost to build something else. So, we have used interest rate in addition to rate of deprecation for calculating the rental value of the building.

ECCE centre cost estimation:

Total land cost: Total area under ECCE centre (sqft)*Per Sqft Rate = 520*200= 104000

Class room space = 440 Kitchen Area= 80

Total Area = Classroom space + kitchen space = 520

Total construction sost = 118160

Kitchen area construction cost is estimated using ECCE centre construction cost i.e. ECCE building construction cost/Area under ECCE centre = 100000/440= 227

Per sq ft cost of construction = Rs227

Cost of constructing kitchen area = per sqft cost of construction* Area under kitchen

= 227*80 = RS 18160

Total cost of construction = building + kitchen

= 100000+18160 = Rs118160

Total building cost = Land cost + construction cost = 104000+118160= Rs222160

Play area cost estimation:

Total land under play area = 600 sq ft

Per sq ft rate = Rs 200

Playground cost= Total area under playground* per sq ft rate = 600*200= Rs 120000

Building rent = $\frac{Total\ Asset\ Worth * Rate\ of\ Depreciation}{100} + \frac{Total\ Asset\ Worth * Interest\ Rate}{100}$ = $\frac{222160*2}{100} + \frac{222160*6}{100}$ = Rs17773

Playground rent (Crèche) = $\frac{Total\ Asset\ Worth * Interest\ Rate}{100}$ = $\frac{120000*6}{100}$ = = Rs7200

2- Salaries and allowances

Unit	Salaries (Teachers/caregivers/staff) and Allowances	CBCDC
Per centre per annum	Salaries of ground staff (caregivers, teacher and supervisor)	105000
	Salaries of management staff (admin, accountant etc)	
	Welfare expenss	
	Total	**105000**
	Total no. of students in ECCE centre per annum	15
	Per child per annum (ECCE Centre)	**7000**

For calculating salaries and allowances, ground staff salaries are considered. Ground staff salaries include the salaries of caregivers, teachers and supervisors For computing caregivers' salaries, the anganwadi helper's salary slab is used as caregivers are from the community (unpaid). Wherever separate salaries are available for the ECCE section,that is what is included. In the absence of that, it has been assumed to be the same for teachers in all classes and estimated accordingly for the ECCE age group. In this case, data on the separate salaries for ground staff was available and it is included in the analysis.

Teacher Salary = 54000----- (a)

Supervisor Salary = 108000*

*Under each supervisor, there are four centres

Per centre share = $\frac{\textbf{Total Salary}}{\textit{Number of Centres}} = \frac{108000}{4}$ = 27000------ (b)

Caregiver salary = Rs 24000** -----(c)

Caregiver salary is estimated using angawadi helper's salary norms

Salaries of ground staff= (a)+(b)+(c) = Rs 105000

3- Nutrition and auxiliary services

Unit (In rupees)	Nutrition and auxiliary services	CBCDC
Per child per annum	Nutrition and supplementary services	28080
	Auxiliary services	Data not available
	Total	**28080**
	Total No. of Students in ECCE centre per annum	**15**
	Per child per annum (ECCE Centre)	**1872**

Data for Nutrition and supplementary services component is estimated using ICDS nutrition norms because CBCDC gets its nutrition supplement from government. Nutrition and supplementary services include cost incurred on food materials.

Cost incurred on nutrition and supplementary services (ECCE centre) = Per Child Cost * Number of Children= 1872*15= 28080

Per child cost per day cost =Rs 6 (Anganwadi Norms)

Per child per annum Cost = 6*26*12= 1872

Per centre child norm = 15

4- **Learning material and curriculum development:** ***Data not available***

Unit	Learning Material and Curriculum Development	CBCDC
Per centre Pper annum	Cost Incurred on TLM (Which also Include PSE kit and flexi funds) a+b+c+d	
	a) Books	
	b) Audiovisuals	
	c) TLM	
	d) Others	
	Costs incurred in curriculum development	
	Others, If any	
	Total	
	Total no. of students in ECCE centre	
	Per child per annum (ECCE Centre)	

5- **Teacher/Pedagogy Training-** ***Data not available***

Unit	Pedagogy Training	CBCDC
Per centre per annum	Training	
	Others, If any	
	Total	
	Total no. of students in ECCE centre	
	Per child per annum (ECCE Centre)	

6- Parent/community-centered practices: ***Data not available***

Unit	Parent/Community Centered Practices	CBCDC
Per centre per annum	Cost incurred on Parent-centred training programmes/ Cost incurred on PTM	
	Cost Incurred on community-centred training programmes	
	Others, If any	
	Total	
	Total no. of students in ECCE centre per annum	
	Per child per annum (ECCE centre)	

UBM and UCM

The recurring costs in the analysis consist of the sum total of six different components viz, i) Infrastructure, space and resources; ii) Salaries (teachers/caregivers/sStaff); iii) Nutrition and auxiliary services; iv) Learning material and curriculum development; v) Teacher/Pedagogy Training; vi) Parent/community-centred practices. As per our analysis of this model, the costs required to run a UBM and UCM are Rs. 127990 and Rs. 215906 per annum and per child cost is Rs. 6400 and Rs. 8636 per annum (if the number of students per UBM are 20 and UCM are 25 respectively). Details of the method used for estimating unit cost (per centre and per child)) are given below

1- Infrastructure, space and resources

Unit (In rupees)	Infrastructure, space & resources	UBM	UCM
	Non-recurring		
	Land	569850	550200
	Cost of building	58988	56488
	Total (land+ building))	628838	606688
	a) Cost incurred on purchase of basic class furniture, material, equipment and vehicle etc.	12000	10000
	b) Cost Incurred on Purchasing of outdoor Play material		
	c) Cost incurred on purchase of basic furniture (mats) for nap time		
	Total	**640838**	**616688**
Per centre	**Recurring**		

per annum	a) Building rent	15330	13951
	b) Rental value of basic class furniture, material, equipment and vehicle etc.	1200	1000
	c) Rental value of outdoor play material		
	d) Rental value of basic furniture for nap time	700	600
	e) Electricity and water charges		
	f) Cost incurred in maintenance and repairs	3000	1000
	Playground rent	23580	23580
	Total	**43810**	**40131**
	Total no. of students in ECCE Centre	**20**	**25**
	Per child per annum (ECCE Centre)	**2191**	**1605**

In the cases of UBM and UCM, land is donated by the community and labour and masonry charges for construction of building are also borne by community members and an NGO pays for the material . For estimating current prices of land government rates for industrial infrastructure development corporation and data from different real estate agencies in Bhubaneswar are used like Magicbricks, 99 acres, Sulekha etc and an average value is used whereas for calculating labour and masonry costs, state-specific MNREGA norms are used.

However, in the UBM and UCM cases, assets like buildings and furniture are not rented and therefore for estimating the annual used value of the assets imputed rent is calculated. In these cases, land is donated by the community for construction and labour masonry charges are borne by the community. However, these buildings and lands may have alternative uses and the decision to build or use it for education may mean the sacrifice of an opportunity cost to build something else. So, we have used interest rates in addition to rate of deprecation for calculating the rental value of lands and buildings. Other assets like furniture etc. were not pre-existing and have been created just for ECCE purpose, so we have only used deprecation rates for calculating the rental value of the assets.

Calculation:

Total land cost (UBM): Total area under ECCE centre (sq ft)*Per sq ft rate = 450*393= 176850

Play area (UBM): Total play area (sq ft)*Per sq ft rate = 1000*393= 393000

Total land cost (UCM): Total area under ECCE Centre (sq ft)*Per sq ft Rate= 400*393= 157200

Play area (UCM): Total play area (sq ft)*Per sq ft rate = 1000*393= 393000

Per sq ft rate range between 286 (government) to 500 (real estate agency). For estimating land cost, we have taken the average i.e. Rs. 393 per sq ft

Average cost incurred on purchase of material= 35000

Labour Cost = Per day labour charges *No. of workers* No of days= 176*4*22= 15,488

Average cost incurred on construction of toilet = 8,500(UBM)/6000(UCM)

Cost incurred in construction of building = Average cost incurred on purchase of material+ labour cost+ average cost incurred on construction of toilet

= Rs. 58988 (UBM)/Rs. 56488 (UCM)

Building rent (UBM) = $\frac{Total\ Asset\ Worth * Rate\ of\ Depreciation}{100} + \frac{Total\ Asset\ Worth * Interest\ Rate}{100} = \frac{235838*2}{100} + \frac{235838*6}{100} = 15330$

Building rent (UCM) = $\frac{Total\ Asset\ Worth * Rate\ of\ Depreciation}{100} + \frac{Total\ Asset\ Worth * Interest\ Rate}{100} = \frac{213688*2}{100} + \frac{213688*6}{100} = 13951$

Rent for play area (UBM/UCM) = $\frac{Total\ Asset\ Worth * Intrest\ Rate}{100} = \frac{393000*6}{100} = 23580$

Rent for Furniture and other equipment = $\frac{Total\ Asset\ Worth * Rate\ of\ Depreciation}{100} = \frac{(12000)(10000)*10}{100}$ = 1200/1000 (UBM/UCM)

For other variable cost subheads, data is used from interviews with the management and financial norm documents.

2- Salaries (Teachers/Caregiver/Staff) and Allowance

Unit (In Rupees)	Salaries (teachers/caregivers/Staff) and Allowances	UBM	UCM
Per centre per annum	Salaries of ground staff (caregivers, teachers)	57600**	54000
	Salaries of management staff (admin, accountant etc)	10880	21075
	Welfare expenses		
	Total	68480	75075
	Total no. of students in ECCE centre per annum	20	25
	Per child per annum (ECCE centre)	3424	3003

For calculating salaries and allowances, ground staff and management staff salaries are considered. Ground staff salaries include UBM and UCM teachers' and helpers' salaries and management staff salaries include those of the supervisor, programme manager etc . Wherever separate salaries are available for the ECCE sections, these have been specifically included. In the absence of that, it has been assumed to be the same for teachers in all classes and estimated accordingly for the ECCE age group. In this case, both centres are standalone ECCE centres and data on the separate ground staff salaries was available and is included in the analysis whereas in the case of management staff, it has been assumed to be same for all the programmes and estimated accordingly by dividing equally between different programmes. In our estimation, only the UBM and UCM share is used.

3- Nutrition and auxiliary services

Unit (in rupees)	Nutrition and auxiliary services	UBM	UCM
Per child per annum	Nutrition and supplementary services	No provision	93600
	Auxiliary services	Part of Teachers salary	2000
	Total		**95600**
	Total no. of students in ECCE centre per annum		**25**
	Per child per annum (ECCE Centre)		**3824**

In UBM, there is no provision for nutrition and supplementary services and the cost of auxiliary services is part of teacher's salary component.

Data for nutrition and supplementary and auxiliary services component for UCM is collected from the social welfare board financial norms and interviews with the management . The nutrition and supplementary services include expenditure incurred on food material for providing meals (snack + lunch). On the other hand, auxiliary services include expenditure incurred on doctors' fees and medicine kit costs.

Expenditure incurred on nutrition and auxiliary services (ECCE centre) =

$$\frac{\text{Total expendtiure on Nutrition and Auxiliary Services}}{\text{Total No.of Classes in the Centre/School}} * \text{Total No. of Classes under ECCE Centre}$$

$$\frac{\text{Total expendtiure on Nutrition and Auxiliary Services}}{1} * 1 = \frac{93600+2000}{1} * 1 = 95600$$

4-

Learning Material and Curriculum Development

Unit (in rupees)	Learning material and curriculum development	UBM	UCM
Per centre per annum	Cost Incurred on TLM (Which also Include PSE kit and flexi funds) a+b+c+d	10000**	3000
	a) Books	10000**	
	b) Audiovisuals		
	c) TLM		2000
	d) Others		1000
	Cost incurred in curriculum development		
	Total	**10000**	**3000**
	Total no. of students in ECCE centre per annum	**20**	**25**
	Per child Per annum (ECCE centre)	**500**	**120**

Data for the learning material subhead is collected from interviews with the management (UBM) and financial norms (UCM). For UBM, the learning material minor head includes expenditure incurred on books and notebooks. For UCM, the learning material minor head include expenditure on TLM and indoor play material.

Expenditure incurred on Learning Material (ECCE centre) = $\frac{\text{Total expendtiure on Learning Material}}{\text{Total No.of Classes in the Centre/School}} * \text{Total No. of Classes under ECCE Centre}$

UBM= $\frac{\text{Total expendtiure on Learning Material}}{1}$*1 **UCM** = $\frac{\text{Total expendtiure on Learning Material}}{1}$*1

UBM = $\frac{10000}{1}$*1 = 10000** **UCM** = $\frac{3000}{1}$*1 = 3000

***Expenditure is borne by parents and expenditure on books and notebook is calculated using per child cost.*

5- Teacher/pedagogy training

Unit (in rupees)	Teacher/pedagogy Training	UBM	UCM

Per centre per annum	Training	5700	2100
	Total	5700	2100
	Total no. of students in ECCE Centre	20	25
	Per child per annum (ECCE centre)	285	84

Data for teacher/pedagogy training is gathered from interviews with the management (UBM/UCM). Teacher/pedagogy training expenditure for UBM includes two trainings (10 days of residential training) per annum and one-day trainings thrice a year. For UCM, the expenditure on training includes two trainings (two days) per annum and one-day orientation programmes thrice a year.

UBM

Expenditure on training = Cost incurred on 10-day training programme* No. of trainings per annum + Cost incurred in one-day training* No. of trainings per annum

= 1200*2+150*3= 2850

Total expenditure on Training = Expenditure on training * No of teachers per centre= 2850*2= 5700

UCM

Expenditure on training = Cost incurred on two-day training programme* No. of trainings per annum + Cost incurred in one-day training* No. of trainings per annum

*= 300*2+150*3= 1050*

Total expenditure on training= Expenditure on training * No. of teachers per centre = 1050*2 = 2100

6- **Parent/community-centred practices -** They have a provision of parent/community-centred practices and it is part of the teacher's roles and responsibilities. The cost of parent/community-centred practices is included under the salary and allowance component.

SSUP

The recurring cost in the analysis consists of the sum total of six different components viz, i) Infrastructure, Space & Resources; ii) Salaries (Teachers/Caregiver/ Staff); iii) Nutrition and Auxiliary Services; iv) Learning Material and Curriculum Development; v) Learning Material and Curriculum Development; vi) Parent/community-centred practices. As per our analysis of this model cost required to run a child and parent-focused ECCE centre (which includes crèche and balwadi) is Rs. 2675599 per annum and per child cost is Rs. 28769 per annum (if the number of students per ECCE centre are 70). Details of the method used for estimating unit cost (per centre and per child) are

given below.

1- Infrastructure, space and resources

Unit	Infrastructure, space and resources	SSUP
	Non-recurring cost	
	Land	3996000
	Cost of building	3400000
	TOTAL (land + building))	7396000
	a) Cost incurred on purchase of basic class furniture, material, equipment etc	600000
	b) Cost Incurred on purchasing of outdoor play material	500000
	c) Cost Incurred on purchase of basic furniture (mats) for nap time	30000
Per centre per annum	Total	8526000
	Recurring cost	
	a) Building rent	272000
	b) Rental value of basic class furniture, material, equipment etc.	96000

	c) Rental value of outdoor play material	80000
	d) Rental value of basic furniture for naptime	4800
	e) Electricity and water charges	100000
	f) Cost incurred in maintenance and repairs	
	Playground rent	239760
	Total	792560
	Total no. of students in ECCE sentre	93
	Per child per annum (ECCE centre)	8522

The SSUP is a standalone centre with a strength of 93 students (crèche to UKG). To estimate current prices of land (222 sq yards) and building (2000 sq ft), unit price data is gathered from the Registration and Stamps Department, Telangana. For calculating rental value of the land and building rates of depreciation and interest rates are charged. However, In the SSUP case, assets like building and furniture are not rented and therefore for estimating the annual use value of the assets, imputed rent is calculated. In this case, land, building and basic furniture is donated by the government. However, these buildings and lands may have alternative uses and the decision to build or use it for education may mean the sacrifice of an opportunity cost to build something else. So, we have used interest rates in addition to the rate of deprecation for calculating the rental value of the assets.

Land cost: Total open space (sq. yard)* Per Sq. yard rate = 222(or 2000 sq ft)*18000= 3996000

Building cost: Total area under ECCE centre * Per sq ft rate = 2000*1700=3400000

Building rent = $\frac{Total\ Asset\ Worth * Rate\ of\ Depreciation}{100} + \frac{Total\ Asset\ Worth * Interest\ Rate}{100} = \frac{3400000*2}{100} + \frac{3400000*6}{100} = 272000$

Open area rent (Play area)= $\frac{Total\ Asset\ Worth * Interest\ Rate}{100} = \frac{399600*6}{100} = 239760$

Rental value (furniture and other equipment) = $\frac{Total\ Asset\ Worth * Rate\ of\ Depreciation}{100} + \frac{Total\ Asset\ Worth * Interest\ Rate}{100} = \frac{600000*10}{100} + \frac{600000*6}{100} = 96000$

Rental value (play material-others) = $\frac{Total\ Asset\ Worth * Rate\ of\ Depreciation}{100} + \frac{Total\ Asset\ Worth * Interest\ Rate}{100} = \frac{500000*10}{100} + \frac{50000*6}{100} = 80000$

Rental value (basic furniture for nap time-Others) = $\frac{Total\ Asset\ Worth * Rate\ of\ Depreciation}{100} + \frac{Total\ Asset\ Worth * Interest\ Rate}{100} = \frac{30000*10}{100} + \frac{30000*6}{100} = 4800$

For other variable cost sub heads data is used from interviews with the management .

SSUP model caters for student from ursery to UKG. This means there are four classes in the school and all four are pre-school sections. Therefore, overall space-related costs are attributed to EECE sections.

ECCE centre running cost $= \frac{\text{Total Cost incurred on Variable Component}}{\text{Total No.of Classes in the Centre/School}} * \text{Total No. of Classes under ECCE Centre}$

$= \frac{\text{Total Cost incurred on Variable Component}}{4} * 4$

2-Salaries and allowances

Unit	Salaries (Teachers/caregivers/staff) and Allowances	SSUP
Per centre per annum	Salaries of ground staff (caregivers, teacher, Principal and helper)	1295955
	Salaries of management staff (admin, accountant etc)	275001
	Welfare expenses	66030
	Total	**1636986**
	Total No. of students in ECCE centre per annum	93
	Per child per annum (ECCE Centre)	**17602**

Data for the salaries and allowances component is gathered from interviews with the management . In our analysis, ground staff and management staff salary expenses are considered. In case of SSUP ground staff, salaries include those for nursery, LKG, UKG, extra support teacher, supervisor and helper.. The helper's salary data was not available and it was imputed using MNERGA state-specific norms whereas for the management salary sub head, cost incurred on accounting services i.e. accountant salary is used. The welfare expenses head includes cost incurred on benefits like PF and ESI.

Wherever separate salaries are available for the ECCE sections, they are specifically included. In the absence of that, it has been assumed to be the same for teachers in all classes and estimated accordingly for the four years. In this case, we have used the total cost incurred on salaries and allowances as separate salaries for ECCE sections were not available and it has been assumed to be same for teachers in all classes.

3- Nutrition and auxiliary services

Unit	Nutrition and auxiliary services	SSUP
Per child per annum	Nutrition and supplementary services	No Provision
	Auxiliary services	17860
	Total	**17860**
	Total no. of students in ECCE centre per annum	93
	Per Child per annum (ECCE centre)	**192**

Nutrition and Supplementary Service- No Provision

Data for auxiliary services is gathered from interviews with the management . Under auxiliary services, health camps are organised by the SSUP and cost is incurred on snacks etc (Rs 20 per child) and for fieldtrip, the college bus is used. Bus rental charges are imputed using bus rental service rates in Hyderabad (per bus charge is 4000 for 25-seater bus). The assumption for computing cost incurred on auxiliary services (ECCE centre) is similar to one which we have outlined in first section i.e. Infrastructure, space and resources.

Cost incurred on nutrition and auxiliary services (ECCE centre) = $\frac{\text{Total expendtiure on Nutrition and Auxiliary Services}}{\text{Total No.of Classes in the Centre/School}} * \text{Total No. of Classes under ECCE Centre}$

$$\frac{\text{Total expendtiure on Nutrition and Auxiliary Services}}{4} * 4 = \frac{0+17860}{1} * 1 = 17680$$

4-Learning material and curriculum development

Unit	Learning material and curriculum development	SSUP
Per centre per annum	Cost incurred on TLM (which also includes PSE kit and flexi funds) a+b+c+d	173100
	a) Books	158100**
	b) Audiovisuals	
	c) TLM	
	d) Others	15000
	Cost incurred in curriculum development	
	Total	**173100**
	Total no. of students in ECCE centre per annum	**93**
	Per child Per annum (ECCE Centre)	**1861**

Data for the learning material subhead is gathered from interviews with the management . The learning material minor head includes cost incurred on purchase of books and notebooks (i.e. Rs 1700 per child) and it is imputed using data from another pre-school's per child cost on learning material (books and notebooks). It also accounts for cost incurred on purchase of indoor play material. The assumption for estimating ECCE centre cost is same as mentioned in last section.

Cost incurred on learning material (ECCE centre) = $\frac{\text{Total expendtiure on Learning Material}}{\text{Total No.of Classes in the Centre/School}} * \text{Total No. of Classes under ECCE Centre}$

$\frac{\text{Total expendtiure on Learning Material}}{4} * 4 = \frac{158100+15000}{4} * 4 = 158100^{**} + 15000 = 173100$

**Cost is borne by parents and cost on books and notebook is calculated using per child cost.

5- Teacher/**Pedagogy training**

Unit	Teacher/Pedagogy training	SSUP
Per centre per annum	Training	43093
	Total	**43093**
	Total no. of students in ECCE centre per annum	93
	Per child per annum (ECCE centre)	**463**

Pedagogy training cost includes guest lectures for teaching staff and once in two months supervisor (Assistant Professor) session with teachers and every fortnight classroom observation. For calculating supervisor charges per day, the UGC pay scale (Assistant Professor) is used.

Cost incurred on monitoring and training= Supervisors per day charges* Number of days = 1503*28 = 42093 (No. of days = 6 (Training) +22 (Monitoring) = 28 days)

Assistant Professor Salary = Rs. 45100 per Month

Per day Charges = 45100/30 = Rs. 1503

Cost incurred on guest lectures = 1000

Total cost on training = Cost incurred on guest lectures + Cost incurred on training and monitoring = 42093+1000=43093

6- Parent/Community-centred practices

Unit	Parent/Community Centered Practices	SSUP
Per centre per annum	Cost incurred on parent-centered training programmes/Cost incurred on PTM	12000
	Cost incurred on community-centred training programmes	
	Total	**12000**
	Total No. of students in ECCE centre per annum	**93**
	Per child per annum (ECCE centre)	**129**

Parent-centred practices include cost incurred on guest lectures by psychologists or professors. Cost data was gathered from interviews with the management . The assumption for estimating costs incurred on parent-centred practices (ECCE centre) is like the one we have used in the first section i.e. Infrastructure, space and resources.

Cost incurred on Pedagogy Training (ECCE centre) = $\frac{\text{Total Cost on parent centered practices}}{\text{Total No.of Classes in the Centre/School}} * \text{Total No. of Classes under ECCE Centre}$

$$\frac{\text{Total Cost on parent centered practices}}{4} * 4 = \frac{12000}{4} * 4 = 12000$$

LUPS

The recurring cost in the analysis consists of the sum total of six different components viz, i) Infrastructure, space and resources; ii) Salaries (teachers/caregivers/staff); iii) Nutrition and auxiliary services; iv) Learning Material and Curriculum Development; v) Teacher/Pedagogy Training; vi) Parent/Community-centered practices. LUPS is running three centres in Hyderabad. As per our analysis, the cost of running three different ECCE centres ranges between Rs. 15,50,586 - Rs24,46,987 per annum and the per child cost ranges between Rs. 11,968- 20402. For our analysis, we have taken the weightage average of all three centres. Based on weightage, the average cost required to run an ECCE centre (which includes nursery, LKG and UKG) is Rs. 2159264 per annum and per child cost is Rs. 15761 per annum (if the number of students per centre is 137). The reason for fluctuation in per centre/per child cost is because of variations in the price of land and which directly impacts cost living in the different areas where ECCE centres are located. The other reason for variation is the number of students per centre. Both these factors have led to variations in building rent and salaries of staff members. Details of the method used for estimating unit cost (per centre and per child) are given below.

1- Infrastructure, space and resources

Unit (In rupees)	Infrastructure, space and resources	LUPS
	Non-Recurring Cost	
	Land	
	Cost of building	
	TOTAL (Land+ building))	
	a) Cost incurred on purchase of basic class furniture, material, equipment's and vehicle etc.	545258
	b) Cost incurred on purchasing of outdoor play material	
	c) Cost incurred on purchase of basic furniture (mats) for nap time	
	Total	**545258**
	Recurring cost	
	a) Building rent	345793
	b) Rental value of basic class furniture, material, equipment and vehicle etc.	68372
	c) Rental value of outdoor play material	
	d) Rental value of basic furniture for naptime	
	e) Electricity and water charges	41174
	f) Cost incurred in maintenance and repairs	21609
Per centre per annum	g) Other office expenses	66174

	i) Others	76179
	Playground rent	25804
	Total	**645105**
	Total No. of Students in ECCE centre per annum	**137**
	Per child per annum (ECCE centre)	**4709**

LUPS has three centres with total strength of 1196. In the case of LUPS, data is available for all three centres separately so we have taken the weighted average for centres strength and cost details. In our analysis, we have used weighted averages rather than normal averages so that we can assign different weights to different centres based on their centre-specific cost and school strength (assumed to be a model school). As per weightage, the average per school strength is 455 and per ecce centre strength of students is 137 (which use for imputing all the costs).

However, In the LUPS case, assets like buildings are rented and furniture is not rented. Therefore for estimating the annual use value of the assets, imputed rent is calculated. In this case, assets (furniture etc.), though pre-existing created just for ECCE purposes have been handed over to LUPS by the previous owner. So, we have used deprecation rates alone for calculating the rental value of the assets.

The LUPS model caters for students from nursery to Class X. This means there are thirteen classes in the school, out of which three (i.e. three classes nursery, LKG and UKG) are specific to pre-school sections. Therefore, twenty three percent (i.e.3/13) of the space-related costs are attributed to EECE sections.

For calculating ECCE centre cost: $\frac{\text{Total Cost on Recurring Component}}{\text{Total No.of Classes in the Centre/School}} * \text{Total No. of Classes under ECCE Centre} = \frac{\text{Total Cost on Recurring Component}}{13} * 3$

Rental value (Furniture, vehicle and other equipment) = $\frac{\textit{Total Asset Worth} * \textit{Rate of Depreciation}}{100} = \frac{2362784*10}{100}$ = 236278 ---(a)

Rental value (computer and other equipment) = $\frac{\textit{Total Asset Worth} * \textit{Rate of Depreciation}}{100} = \frac{300000*20}{100}$ =60000 ---- (b)

For calculating ECCE centre cost: $\frac{\text{Total Cost on incurred on (a+b)}}{13} * 3 = \frac{296278}{13} * 3$ = 68372

For other variable cost subheads, data is used from interviews with the management and annual income and cost documents.

2-Salaries (teachers/caregivers/staff) and Allowances

Unit	Salaries (teachers/caregivers/staff) and allowances	LUPS
Per centre per annum	Salaries of Ground Staff (Teacher, Principal and Helper)	942632
	Salaries of management staff (admin, accountant etc)	107619
	Welfare expenses	
	Total	1050251
	No. of students in ECCE centre	137
	Per child per annum (ECCE Centre)	7666

In case of LUPS, ground staff salaries include salary of teaching and non-teaching staff and employer's contribution toward PF whereas management expenses include cost incurred on accounting, consultancy and audit services.

Wherever separate salaries are available for the ECCE sections, they have been included. In the absence of that, it has been assumed to be the same for teachers in all classes and estimated accordingly for the three classes (nursery, LKG and UKG). In this case, we have used total cost incurred on salaries and allowances as separate salaries for ECCE sections were not available and it has been assumed to be the same for teachers in all classes.

In our estimation, twenty three percent (i.e. 3/13) of salaries/allowances-related cost is attributed to ECCE centres. This assumption for computing cost incurred on salaries and allowances is similar to one which we have outlined in first section i.e. Infrastructure, space and resources.

$$\text{Cost incurred on salaries and allowances (ECCE centre)} = \frac{\text{Total expendtiure on Salaries and Allowance}}{\text{Total No.of Classes in the Centre/School}} * \text{Total No. of Classes under ECCE Centre}$$

$$= \frac{\text{Total Cost on Salaries and Allowance}}{13} * 3$$

3 Nutrition and Auxiliary Services –

There is no provision for Nutrition and Auxiliary services.

4- Learning material and curriculum development

Unit	Learning material and curriculum development	LUPS
Per centre per annum	Cost incurred on TLM (which also Include PSE kit and flexi funds) a+b+c+d	383600
	a) Books	280850**
	b) Audio Visuals	
	c) TLM	
	d) Others	102750**
	Cost incurred in curriculum development	46154
	Total	429754
	Total No. of students in ECCE centre	137
	Per child per annum (ECCE centre)	3137

Learning material and curriculum development data is gathered from interviews with the management . Learning material minor heads include cost incurred on purchase of books and notebooks. For computing the cost of books and notebooks, the average value is used i.e. maximum and minimum value average is taken for calculating average value. Apart from learning material, per child uniform cost is also used for computing the total cost incurred on purchase of uniforms at the ECCE centre level. Curriculum development includes cost incurred on content development and execution.

In our estimation, twenty three percent (i.e. 3/13) of curriculum development-related cost is attributed to ECCE centres. This assumption for computing costs incurred on curriculum development is similar to one which we have outlined in first section i.e. Infrastructure, space and resources.

Cost incurred on Learning material (ECCE centre) =

$$Expenditure\ incurred\ on\ purchase\ of\ Books\ and\ Note\ book(per\ child) * No.of\ student\ per\ centre + Expenditure\ inccured\ on\ purchase\ of\ uniform\ (per\ child) * No.of\ student\ per\ centre$$

= 2050*137+750*137 = 383600**

***Cost is borne by parents and costs on books and notebooks are calculated using per child cost.*

Cost incurred on developing curriculum = $\frac{\text{Total Cost on Salaries and Allowance}}{13} * 3 = \frac{200000}{13} * 3 = 46154$

5- Pedagogy Training

Unit	Pedagogy Training	LUPS
Per centre per annum	Training	34154
	Total	34154
	No. of students in ECCE centre per annum	137
	Per child per annum (ECCE Centre)	360

Data for teacher/pedagogy training is assembled from interviews with the management . The assumption for computing cost incurred on training (ECCE centre) is like the one which we have sketched in first section i.e. Infrastructure, space and resources.

In our estimation, twenty three percent (i.e. 3/13) of training-related cost is attributed to ECCE centres. This assumption for computing costs incurred on training is similar to one which we have outlined in first section i.e. Infrastructure, space and resources.

Cost incurred on Teacher/pedagogy training (ECCE centre) = $\frac{\text{Total expendtiure on Training}}{\text{Total No.of Classes in the Centre/School}} * \text{Total No. of Classes under ECCE Centre}$

$$\frac{\text{Total expendtiure on Training}}{13} * 3 = \frac{148000}{13} * 3 = 34154$$

Total cost of training: Per teacher training cost*No. of teachers = 4000*37= 148000 **Per teacher training cost is inclusive of trainer's remuneration and material cost

6- Parent/community-centred practices:

There is no provision for parent and community-centred practices.

UPPS

The recurring cost in the analysis consists of the sum total of six different components viz, i) Infrastructure, space and resources; ii) Salaries (teachers/caregivers/staff) iii) Nutrition and auxiliary services iv) Learning Material and Curriculum Development v) Teacher/Pedagogy Training; vi) Parent/community-centred Practices. As per our analysis of this model, the cost required to run an ECCE centre (which includes nursery, LKG and UKG) is Rs. 2634213per annum and per child cost is Rs. 23947 per annum (if the number of students per ECCE centre are 110). Details of the method used for estimating unit cost (per centre and per child) are given below.

1- Infrastructure, space and resources

The UPPS pre-primary school is a standalone lab school with a strength of 200 (nursery to Class III), which is part of the college located in Osmania University campus. In this case, lease charges are available for land and part-building and is used to represent the value of those assets used during the year. However, another building has been built over the years and furniture also purchased over the years; and therefore, for estimating the annual use value of these assets imputed rent is calculated to be able to get a complete picture of the associated costs. In this case, since assets (building, furniture etc.) were not pre-existing and were created just for ECCE purposes, we have used deprecation rates alone for calculating the rental value of the assets.

Unit (in rupees)	Infrastructure, space and resources	UPPS
	Non-recurring costs	(In rupees)
	Cost of building	2120619

	TOTAL (land+ building))	2120619
	a) Cost incurred on purchase of basic class furniture, material, equipment and vehicle etc.	306083
	b) Cost Incurred on purchasing of outdoor play material	
	c) Cost Incurred on purchase of basic furniture (mats)for nap time	
	Total	2426702
Per centre per annum	Recurring cost	
	a) Building rent	46913
	b) Rental value of basic class furniture, material, equipment and vehicle etc.	30608
	c) Rental value of outdoor play material	
	d) Rental Value of basic furniture for naptime	
	e) Electricity and water Charges	58500
	f) Cost incurred in maintenance and repairs	113000
	g) Playground rent	
	h) Other/Misc. expenses	63768
	Total	**312789**
	Total No. of students in ECCE centre per annum	**110**
	Per child per annum (ECCE centre)	**2844**

The UPPS model caters for student between nursery and Class III. This means there are six classes in the school, out of which three (i.e. three classes nursery, LKG and UKG) are specific to pre-school sections. Therefore, half of the space-related costs are attributed to ECCE sections.

For calculating ECCE centre cost: $\frac{\text{Total Cost on incurred on variable component}}{\text{Total No.of Classes in the Centre/School}} * \text{Total No. of Classes under ECCE Centre} = \frac{\text{Total Cost on incurred on variable componen}}{6} * 3$

Building rent = $\frac{Total\ Asset\ Worth * Rate\ of\ Depreciation}{100} = \frac{4241238 * 2}{100} = 84825$

Building rent for ECCE centre= $\frac{\text{Total Building Rent}}{6}$ *3 = $\frac{84825}{6}$ *3 = 42413

Building and land lease charges for ECCE centre = $\frac{\text{Total Lease Charges}}{6}$ *3 = $\frac{9000}{6}$ *3 = 4500

Total Rent = Lease charges+ building rent = 42413+4500 = 46913

Rental Value (Furniture, vehicle and other equipment) = $\frac{\textit{Total Asset Worth} * \textit{Rate of Depreciation}}{100}$ = $\frac{612165*10}{100}$ = 61217

Furniture and other equipment rented for ECCE centre= $\frac{\text{Total Rental Value}}{6}$ *3 = $\frac{61217}{6}$ *3 = **30609**

For other recurrent cost sub heads, data is used from interviews with the management and annual income and expenditure documents.

2- Salaries (Teachers/Caregiver/Staff) and Allowance

Unit (In rupees)	Salaries (Teachers/Caregiver/Staff) and Allowance	UPPS
	Salaries of Ground Staff (Teacher,Supervisor and Helper)	1815500
	Salaries of Management Staff (Admin, Accountant etc)	162000
	Welfare Expense	271500
	Total	2249000
	Total No. of Students in ECCE Centre	110
Per Centre Per Annum	Per Child Per Annum (ECCE Centre)	20445

Salaries include salaries of teachers, researchers, support staff and supervisors, including any other staff welfare measures over and above wages. Welfare services in this case includes employer's contributions towards PF and gratuity. Wherever separate salaries are available for the ECCE sections, that is specified. In the absence of that, it has been assumed to be the same for teachers in all classes, and estimated accordingly for the three years. In this case, we have used total expenditure incurred on salaries and allowances as separate salaries for ECCE sections were not available and it has been assumed to be same for teachers in all classes.

Expenditure incurred on salaries and allowances (ECCE centre)=

$$\frac{\text{Total expendtiure on Salaries and Allowance}}{\text{Total No.of Classes in the Centre/School}} * \text{Total No. of Classes under ECCE Centre} =$$

$$\frac{\text{Total expenditure on Salaries and Allowance}}{6} * 3$$

3- Nutrition and auxiliary services: No provision

In the UPPS model, there is no provision for Nutrition and auxiliary services.

4- Learning material and curriculum development

Unit (in rupees)	Learning material and curriculum development	UPPS
Per centre per annum	Cost Incurred on TLM (Which also Include PSE kit and flexi funds) a+b+c+d	1648
	a) Books	
	b) Audiovisuals	
	c) TLM	1648
	d) Others	
	Cost incurred in curriculum development	19000
	Total	20648
	No. of students in ECCE centre per annum	110
	Per child per annum (ECCE centre)	188

Learning material data is collected from interviews with the management and partially from income expenditure a/c. There is no provision for books and notebooks for pre-school students. The curriculum is revised once in 10 years. In our analysis, the annual cost incurred on curriculum development is divided by 10

Expenditure incurred on salaries and allowance (ECCE centre) = $\frac{\text{Total expendtiure on Learning Material}}{\text{Total No.of Classes in the Centre/School}} * \text{Total No. of Classes under ECCE Centre}$

$\frac{\text{Total expendtiure on Learning Material}}{6} * 3 = \frac{3295}{6} * 3 = 1648$

Expenditure incurred on curriculum development per annum = $\frac{\text{Total cost}}{\text{No.of years}} = \frac{190000}{10} = 19000$

Note: Educational Equipment's cost is covered under infrastructure, space and resource head

5- **Pedagogy training:** They have a provision of in-house training and it is provided by the research staff. Research staff salary is included under salary and allowance component.

6- **Parent/Community-centred practices**

Unit	Parent/Community-centred practices	UPPS
Per centre per annum	Cost Incurred on parent-centered training programmes/ Cost incurred on PTM	51776
	Cost incurred on community-centred training programmes	
	Total	**51776**
	Total no. of students in ECCE centre per annum	**110**
	Per child per annum (ECCE centre)	**471**

Parent centred practices include expenditure incurred on celebrations and functions. Expenditure data for celebration and functions collected from income and expenditure a/c. The UPPS model caters to students between nursery and Class III. This means there are six classes in the school, out of which three (i.e. three classes nursery, LKG and UKG) are specific to pre-school sections. Therefore, half of the parent-centred practices costs are attributed to ECCE sections.

Expenditure incurred on parent centred practices (ECCE centre) = $\frac{\text{Total expenditure on parent centered practices}}{\text{Total No.of Classes in the Centre/School}} * \text{Total No. of Classes under ECCE Centre}$

$$\frac{\text{Total expenditure on parent centered practices}}{6} * 3 = \frac{103551}{6} * 3 = 51776$$

ANNEXURE 4

RESOURCE ESTIMATE CALCULATIONS

1. UPCS model

Total budget for 2015-16 = 658.96 lakhs (from Annual Report 2015-16 provided as hard copy)
Expenditure on direct delivery model = 28% = 184.50 lakhs

Resource per centre = Exp on direct delivery model/ No. of centres = 184.50/14 = 13.18 lakhs

Resource per ECCE centre = (1318000/3)*2 = 878667

2. CUSP model

Total budget for 2015-16 = 10,36,50,194 (from Annual Report 2015-16 taken from website)

CUSP (1)
Total resources for ECCE = (Total budget/4)*2 = 5,18,25,097
Resource per ECCE centre = Total ECCE resources/No. of centres = 5,18,25,097/11 = 47,11,372

CUSP (2)
Total Resources for ECCE = (Total budget/13)*2 = 1,72,75,032
Resource per ECCE centre = Total ECCE resources/No. of centres = 1,72,75,032/2 = 86,37,516

3. CBCDC model

Since no budget documents were provided, field notes were used to estimate budgets
User fees
Total annual Fees = Per child fee* number of enrolments = 10*500 = 5000
Total monthly fee = Per child fee* number of months* number of enrolments = 1*12*500=6000
Donations
Funds per village* number of villages = 60000*32 = 19,20,000
Total resources = User fees + Donations = 19,20,000 + 11,000 = 60,343

4. UBM model and UCM models

Total budget for 2015-16 = 36,896,557 (from Annual Report 2015-16 given as hard copy)
Expenditure on education = 50% of total budget = 18,448,278
Assuming that each of the seven education programmes receives equal amount of funding =
For UBM model
Resources available = Edu expenditure/No. of programmes = 18,448,278/7 = 26,35,468
Resource per centre = Resources available/ No. of centres = 26,35,468/12 = 2,19,622
For UCM model
Resources available = Edu expenditure/No. of programmess = 18,448,278/7 = 26,35,468
Resource per centre = Resources available/No. of centres = 26,35,468/6 = 4,39,244

5. SSUP model

Since budget documents were not available, details from university website and fieldnotes were used to estimate resources

University grant = 40,000

User Fees

Caution Deposit Fee = Fee per child* no. of enrolments = 5000*93= 4,65,000
Tuition Fee = Fee per child* no. of months* no of enrolments = 1100*12*93 = 12,27,600

Total resources of the centre = User fees + grants = 16,92,600

6. LUPS model

Total budget = 1,92,22,929
Total resources for ECCE = (Total budget/13)*3 = 44,36,060
Resource per ECCE centre = Total ECCE resources/no. of centres = 44,36,060/3 = 14,78,686

Total resources for the centre = User fees + grants = 13,04,800

7. UPPS model

Total budget = 1,07,28,806 (as given in the Annual Budget of 2015-16)
Resources for ECCE = Total budget/no. of centres = (1,07,28,806/6)*3 = 53,64,403