EXAMINING CONTEXTS, PRACTICES AND COSTS OF EARLY CHILDHOOD CARE AND EDUCATION IN INDIA

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REPORT II

Costs and Costing Principles of Selected ECCE models in India

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Executive Summary

While it is important to have an estimate for the cost of services by any provider, whether public or a private entity, governments engaged in the business of providing public services rarely undertake detailed costing exercises and opportunity costs of available government land or infrastructure is often ignored. Thus the cost of high quality public provisioning is often underestimated. Also, Planning for public services in India is often based on homogeneous standards and norms and does not consider the local context, culture, practices and requirements.

Drawing on an ethnographic study undertaken in the states of Bihar and Tamil Nadu as well as a cost analysis of public and non-public early childhood care and education (ECCE) centres in these states, this report develops a costing framework that can be used by policy makers for planning and provision of public services. While India has one of the largest state-based Early Childhood Care and Education (ECCE) programmes in the world, its policy and institutional practices have been largely informed by external norms. The costing patterns remain highly centralised and homogenous despite the size and diversity of contexts and status. There is a growing recognition of the need to ensure that early childhood care and education are responsive to community practices and contexts in which they are situated in. We explore here how the costing principles could be different for ECCE programmes that intend to respond to the community needs and practices.

The main arguments put forth are that it is important to estimate economic costs of public service delivery taking quality parameters into account and to ensure that public service delivery models are responsive especially in a diverse country like India. We present a conceptual framework which could guide and facilitate the adoption of responsive practices while planning resource allocations for large scale interventions and present an indicative estimate of the financial resources required for provisioning of high quality ECCE services in India.

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Chapter 1. Introduction

It is important to have an estimate for the cost of services by any provider, irrespective of the fact whether the provider is a public or a private entity. However, while private entities attach a lot of importance to this estimation, as this is fundamental to the estimation of profit prospects, governments engaged in the business of providing public services in important areas such as education, health, water and sanitation rarely undertake detailed costing exercises. Although it is true that the Government has a larger objective of looking into these public services as part of the greater public good, this cannot be the reason for ignoring the understanding of how much it costs to provide respective services. An accurate estimate of costs for providing any particular service can help in more efficient planning, judicious use of resources and better decision-making regarding subsidies and cost-recovery mechanisms to make the provisions sustainable in the long run.

Cost of services refers here to the entire cost and not the recurrent and overt expenditure alone. In case of public services, the opportunity costs of available government land or infrastructure is rarely considered even when an effort is made to understand the cost of a particular service. Also, while the issue of quality is often raised in case of various public services, especially in education and health, it is rarely understood what the cost of a high-quality provisioning is, and what the essential elements of this costing exercise are. This paper uses the early childhood care and education (ECCE) in India as an illustration to undertake a costing exercise leading to development of a costing framework that can be used by policy makers for planning and budgeting not only for this sector but also other development sectors, especially in education. While India has one of the largest State-based ECCE programmes in the world[1], its policy and institutional practices have been largely informed by external norms, shaped largely by what has come to be known as global north. The costing patterns remain highly centralised and homogenous in India despite the size and

[1]India introduced Integrated Child Development Service (ICDS) in 1978, with focus on early childhood care and education (ECCE) for children below six years of age, and health of pregnant and lactating mothers. By far, it is the world's largest ECCE programme and is being accessed currently by more than 83 million children between 0-6 years.

diversity of contexts and status. While the policy statements[2] recognize the need for integrating local needs, this remains a rhetoric in absence of an enabling conceptual framework and costing principles that allow the state mechanisms to be more responsive.

In this chapter, we undertake a cost analysis of selected models of Early Childhood Care and Education (ECCE) across the two states of Bihar and Tamil Nadu[3]. Based on our understanding from the ethonographic component of the study, we try to understand the principles that should underlie a responsive model and present a conceptual framework that can be adopted to facilitate such interventions. Cost analysis of the ECCE models studied is based on a specific conceptual and analytical framework which allows us to study the entire cost, including implicit economic costs, and not just the recurrent and overt expenditure of these models.

Responsive models of ECCE necessitate the recognition that contextually and culturally informed practices have the potential to enrich the existing way in which ECCE interventions are implemented. The presence of such models can also play a crucial role in improving the relevance and uptake of these programmes. The findings from our ethnographic study in both Bihar and Tamil Nadu present the complexity of contexts, diversity of notions regarding understanding of childhood, varying quality of services and the range of experiences in different sites. These findings form the basis of defining a responsive framework as inherently flexible yet accountable – both to the rights of the child and other stakeholders. Our argument here is that while responsive models are defined by being contextually and culturally more attuned to the local situation, they should also be adhering to global norms of accountability though not necessarily to the global norms of practice. With guidance from our cost analysis, where we also try to monetize the non-monetary inputs, we outline the emergent principles that should form the basis for developing a responsive model. Our emergent principles also point out to the fact that ECCE reforms have to be rooted in political economy and technocratic solutions are not necessarily the answer.

[2]National ECCE curricular framework (https://wcd.nic.in/sites/default/files/national_ecce_curr_framework_final_03022014%20%282%29.pdf) and National Policy for Children (https://wcd.nic.in/sites/default/files/npcenglish08072013_0.pdf)

[3]This work is primarily based on research that was undertaken for the project *Examining the contexts, practices and costs of early childhood care and education in India*, funded by the British Academy (BA) and the Department for International Development (DFID, UK). The conceptual framework used for the cost analysis in this chapter is based on earlier work undertaken by Centre for Budget and Policy Studies (CBPS), Bangalore and funded by Save the Children, India.

Our main arguments here are that (i) it is important to estimate economic costs of service delivery taking quality parameters into account for public services as well, because it helps in public policy decision making in the areas of budgets, subsidies and cost-recovery, (ii) the economic costs need to be estimated considering the alternative costs of fixed assets, and also taking all the desired processes of a 'good' case into account by unpacking the dimensions of quality, (iii) it is important that public service delivery models are responsive to local contexts, needs, cultures and knowledges, especially in a diverse country like India; here we use ECCE as an illustration but this could apply to other stages of education and a few other social services as well, and (iv) development of responsive models on a large scale calls for existence of an enabling institutional framework and facilitative costing principles, which also have implications for both the costing guidelines and size of the public budgets meant for respective services.

Thisreport is organised as follows. In chapter 2, we detail the methodology for estimating the economic cost of the ECCE delivery. We have tried to estimate the costs going beyond financial expenditure incurred in order to be able to consider and compute the costs for non-monetised components as well. Chapter 3 presents a comparative analysis of the costs for 5 different ECCE models, taken from private, NGO and public delivery systems. In chapter 4, we present our conceptual framework and discuss some of the emergent costing principles for enabling responsive ECCE models on a large scale. Chapter 5 discusses some of the policy, institutional and budget implications of applying the proposed framework and costing principles to the ICDS programme in India.

Chapter 2. 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, forpublicly 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.

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 costestimation 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.

Finally, before presenting our cost analysis, it is also important to state that this exercise intrinsically builds in questions of quality within the analysis. However, this analysis of quality is different from what quality studies usually measure – that is,the study does not measure the impact of programmes on children, as this was not possible due to time constraints.Neither does the analysis identify which modelsseem to be the most appropriate or best to undertake ECCE. This we argue is not neither desirable nor possible to undertake as models are very different in their size, scales, approaches, intentions, and target population. Instead, quality has been intrinsically tied to the question of cost – to understand what are the costs of certain practices (that are already identified within literature as ‘good practices’ or as desirable)included within models, and how does this impact the sustainability and financing of the model.

2.1. Methodology for cost estimates of the individual models

At the first stage of cost estimates, we have attempted to estimate 'total'annual percentre 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. It is also assumed that capital asset costs are at current prices.

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) andnutrition 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							

2.2 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 ofcapital 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 depreciation 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 depreciation 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

2.3 Recurrent Costs taking non-monetised processes into account

Therecurring costs in this analysis consists of the sum total of six different components viz, i) Infrastructure, space andresources (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.

For estimating per centre or per child cost for composite institutions that provide services for non-ECCE agegroups 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:

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

Chapter 3. Features and Cost Estimates for different models

This section presents a comparative analysis of three non-ICDS models that we studied in these two states of Bihar and Tamil Nadu. Table 3 describes the models, their locations, management and focus.We have removed the actual names of these institutions to maintain their anonymity and the abbreviations given in the table are used henceforth to refer to the respective models. Before going to the costanalysis, we briefly present here the major features of the models.This would help us in viewing the costanalysis from the perspective of the context in which it is operationaland the approach it follows.

Table 3:Abbreviation, model, type and management

SI.No	Abbreviation	Model	Type	Management
1	CRSP	Composite rural school with pre-primary sections	Child-focused	Private
2	TPCBCD	Tribal programme involving community-based child development	Child and community-focused	NGO
3	LRPS	Low-cost rural with pre-primary sections	Child-focused	Private

Apart from these non-ICDS models we also studied the costing for Anganwadi centres in these two states. This was done through an analysis of the state level budget supplemented by field visits to anganwadi centres at these locations.

3.1. Main features of the models

Composite Rural School with Pre-primary Sections(CRSP)

This is an International primary school that had recently opened inthe premises of an old warehouse on the main road of the locality. The school had multiplepre-school classes as well as rudimentary boarding facilities. The school already had approximately 150children between 2-6 years of age enrolled in its pre-school sections, many coming from surrounding villages; indicative of the demand for private ECCE provision in the area.Sections identified as pre-nursery, nursery, lower kindergarten, senior kindergarten and upperkindergarten had approximately 40-45 children in each. However, the curriculum was similarbetween these classes, and their physical arrangement and pedagogic interactions unmistakablymirrored that of upper-level primary and secondary schooling. While the school self-consciously marketed

itself as an English medium school, most classes were conducted in Hindi as the language that teachers were most proficient in.

The pre-school classrooms at the school consisted of long rows of metal benchesattached to a desk which were too large for the smaller children. Subject periods (English,mathematics, science and Hindi) were of 45 minutes each and structured through the content ofwork books. Each child had books in which they individually completed exercises such asidentifying and writing letters and numbers, counting objects and tracing shapes. Teachers readfrom the textbook and would mark children's written work. Significantly, no other form ofdevelopment (e.g., physical, socio-emotional, linguistic, creative), considered critical to earlychildhood development and available within the ICDS curricular framework, barring literacy or academic learning, was seen. Inquiry-based or play-based learning was not observed as a pedagogic strategy within classrooms, and there were few resources to facilitate such approaches.

Tribal programme involving community-based child development (TPCBCD)

This is a school run by a non-profit organisation and is situated in a tribal dominated area. The medium of instruction is the local language. The school has mostly tribal children attending and the teachers are also mostly from the same community. The school organization is very informal with no requirement of fees and uniforms etc. The school has consciously decided to not adopt a formal structure with office rooms and furniture etc so that the tribal students and their parents are not intimidated by those. While the school hours (from 9.30 AM to 3.30 PM) are organized with scheduled classes and a tentative timetable, no books are used in the pre-primary sections and children learn mostly through interactive play. The hours after lunch everyday are devoted to arts and crafts. Children are given sufficent time to explore the school grounds and are also taught about the tribal way of life including their rights. The pre-primary sections are not sub-divided into specific classes and all the children are taught together. Within the classroom, children are organized into levels based on their learning performance. The assessment system is continous and comprehensive. Since the hamlets are widespread and reaching the school might be difficult for many, the school has arranged transportation by jeep on parents bearing half of the cost for this.

Low-cost rural with pre-primary sections (LRPS)

This is a formally structured school run by a religious minority institution. The school timings are from 9.30 AM to 3.30 PM. The pre-primary sections of the school consist of nursery, LKG (Lower Kindergarten) and UKG (Upper Kindergarten). While nursery and LKG school days end at 12.30 PM, for the UKG it is not so. The school mostly follows the formal education methods even in the pre-primary sections. All the pre-primary sections have books and homework is given to the children. While the LKG sections have two teachers per classroom, for UKG it is only one teacher per class. While the method of education is mostly formal, the children are encouraged to venture out and use puzzles and other alternative learning materials sometimes. The teachers also engage with the children through rhymes, both English and the local language, to better involve them . The fee structure followed is as prescribed by the government (Rs. 3000 for a term of normally 3 months) and does not include payment for books and uniform etc. Transportation is provided by the school on payment basis.

3.2. Per child total annual cost

An estimation of total per child annual cost of these selected models as well as the public ICDS based models in these states 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.1200 to as high as Rs. 23555. We can see that in both of these states, the public ECCE centres incur the least cost per child. This is significant because the anganwadi centres also spend a signfiicant amount on the nutrition component as we'll see later on. This indicates that the pre-school education component in the pubLic ECCE centres need more investment as well as attention. We also see that while TPCBCD is one model which has really attempted to adapt itself to the local context (teachers from the community, classroom design more suited to the local context), it has managed to do it at a cost which is not exorbitant. 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.

Figure 1: Per child unit cost

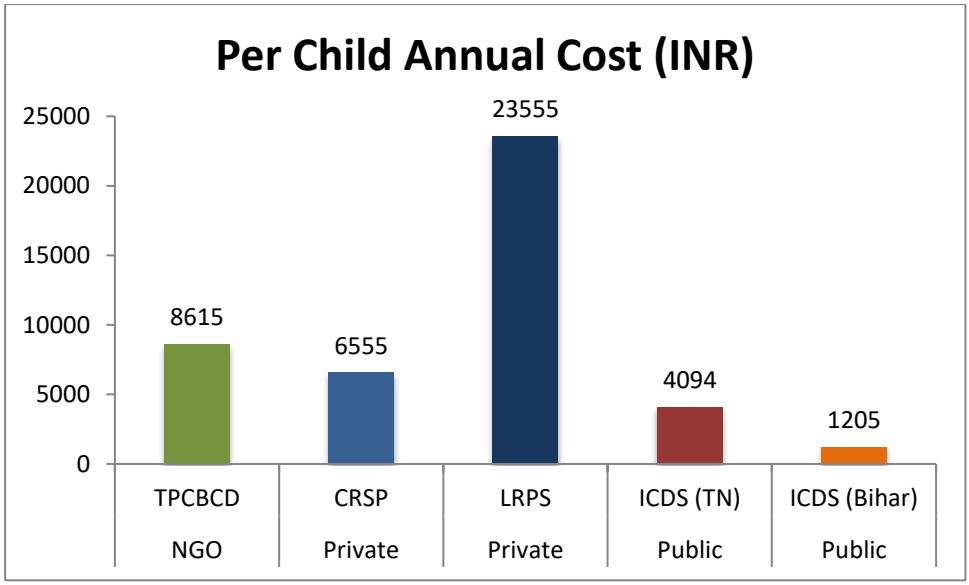


Table 4: Model wise Cost Component Share Breakup(Amount in Rupees Per Annum Per centre)

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 (Rs.)
CRSP	136363(14)	452727(46)	No Provision	375000* (38)	19091(2)	No Provision	983181	150	6555
LRPS	11341(3)	234000(55)	70200(16)	23993(6)	84456(20)	Data not Available	423990	18	23555
TPCBCD	27000(4)	621620(89)	No Provision	11833(2)	16500(2)	20833(3)	697786	81	8615

Note: the figures in the parentheses depict the percentage share of respective components for that model.
*Cost is borne by parents and costs on books and notebooks and uniform are calculated using per child cost.

As explained earlier, the cost analysis for Anganwadi centres was conducted through an analysis of the state level budgets. Below tables show the component wise expenditures in Anganwadis and average per capita per annum expenditures for the state of Bihar and Tamilnadu.

Table 5: ICDS Budgets and other Child related Expenditures (0-6 Years) between 2014-15 and 2018-19 for Bihar (Rs lakh)

	2014-15 AE	**2015-16 AE**	**2016-17 AE**	**2017-18 RE**	**2018-19 BE**
A-Anganwadi/ ICDS	65911.33151	76116.30864	88806.95803	140041.66	127740.76
B - Pre School Education					
C – Nutrition	119901.0841	107880.7126	95600.25826	178665.21	164486.8
D - Anganwadi Infrastructure	0	5153.2206	1828.4	16001.02	19348.22
E – Others	9480.4054	661.2553	1454.39628	8638.98	8180.63
TOTAL	**195292.821**	**189811.4972**	**18769 0.0126**	**343346.87**	**319756.41**
Source: State Budget					

Table 6: Average per annum, per capita ICDS expenditure (Bihar)

State	**Average ICDS expenditure 2014-18 (Rs lakh) per annum**	**0-6 Children***	**Average per capita ICDS expenditure on per child (Rs)**
Bihar	**229035.30**	1,90,32,041	1203
*2018 esttimated figures			
Calculate % change in growth between the two census years 2001 and 2011 (first value)			
Weight 0-6 age according to their population size as of 2011 (second value)			
Multiply the first value derived by second value derived			
Sum the final values and divide by 10 for annual growth rate in State for ages 0-18			

Table 7: ICDS Budgets and other Child related Expenditures (0-6 Years) between 2014-15 and 2018-19 for Tamil Nadu (Rs lakh)

	2014-15 AE	**2015-16 AE**	**2016-17 AE**	**2017-18 RE**	**2018-19 BE**
A-Anganwadi/ ICDS	142555.52	139720.18	144661.81	167562.99	201422.97
B - Pre School Education					
C – Nutrition	17977.51	17231.8	17216.87	19696.18	15626.16
D - Anganwadi Infrastructure	6384.72	2686.58	2001.36	2000	2000
E – Others	62252.06	59969.03	119079.04	135628.59	229560.1
TOTAL	**229169.81**	**219607.59**	**282959.08**	**324887.76**	**448609.23**
Source: State Budget					

Table 8: Average per annum, per capita ICDS expenditure (Tamil Nadu)

State	**Average ICDS expenditure 2014-18 (Rs lakh) per annum**	**0-6 Children***	**Average per capita ICDS expenditure on per child (Rs)**
Tamil Nadu	264156.06	64,52,238	4094
*2018 estimated figures			
Calculate % change in growth between the two census years 2001 and 2011 (first value)			
Weight 0-6 age according to their population size as of 2011 (second value)			
Multiply the first value derived by second value derived			
Sum the final values and divide by 10 for annual growth rate in State for ages 0-18			

3.3. 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 9). 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. 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. We see that the Anganwadis in both the states pay comparatively lesser to the workers even when qualifications are equivalent and working hours are more. The private school in Bihar pays the least even though the qualification required in its case is the highest. 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 the highest 14 percent in case of the private school in Bihar. For the two schools in Tamilnadu this proportion is significantly smaller at 3 and 4 percent respectively. Its also significant to note that out of the three models studied, this is the centre which incurs the least cost on children. This is in keeping with our earlier study (CBPS, 2018) where we found a similar result and inferred that physical infrastructure serves as the main point of attraction for parents in low cost private schools.

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.

Table 9: ECCE centre instructor's salaries, qualifications and Teacher-pupil ratios

Models	Average indicative monthly gross salary of the worker (Rs)	Working Hours (Hours)	Teacher/ worker's education and professional qualification (minimum)	Whether provision for any social security (PF, gratuity, etc.) exists (Yes/no)
CRSP	4500	5	12th Pass	No
TPCBCD	5000/13500	6.5	10th Pass	Yes
LRPS	10712	6.5	10th Pass	No
ICDS (Tamilnadu)	5000	7.5	10th pass	Yes
ICDS (Bihar)	4500	7.5	8th / 10th/ 12th pass	No

Table 10: 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)
CRSP	136363	750	500	Yes
LRPS	11341	400-500	800-900	Yes
TPCBCD	27000	350-450	800-900	Yes

C. Nutrition and auxiliary services

Out of all the models studied we see that only the Anganwadi centres under the ICDS programme spend a significant amount under the nutirtion component.

D.Learning material and curriculum development

While both the non-public centres in Tamilnadu as well as the Anganwadi centres in both the states spend a minimal amount on this component (between 0 – 6 percent), there is a noticeable difference in case of the private school in Bihar which spends 38 percent of the total cost. However, this amount includes the charges paid for books, notebooks and uniforms etc which are essentially paid by the parents of the children.

E. Training

Training accounts for between 2 to 20 per cent of total costs for the three models for which we have the data.

F. Parent/community-centred practices

Out of thenon-ICDS models studied, the NGO managed model (TPCBCD) had such provisions.

3.3. 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. Tables11 and 12 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. However, we see that this data was not available for most of the models.

Table 11: 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**
CRSP	No capital asset	No capital asset	545455	DNA	DNA	545455	150	1
LRPS	189000	DNA	DNA	239934	DNA	428934	18	1
TPCBCD	No capital asset	No capital asset	250000	DNA	DNA	250000	81	1

Table 12: Annual Recurrent Costs Incurred (Per Centre costs in Rupees)

Model	Cost Component											
	Building rent andplayground rent	**Rental/costof 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**
CRSP	54545	Part of initial investment	27273	452727	No Provision	375000	Data not Available	19091	Data not Available	928636	150	6191
LRPS	Part of initial investment	Data not available	Data not available	234000	70200	Part of initial investment	Part of initial investment	102520	Data not available	406720	18	22596
TPCBCD	2000	Part of initial investment	Data not available	621620	No Provision	10000	1833	16500	20833	672786	81	8306

The per child annual recurrent costs shown in table 12 are lower than the per child annual costs shown earlier in figure 1 as it does not include the annualised values of capital costs.

Chapter 4.Conceptual framework and guiding principles for costing responsive ECCE models

What emerges from the discussion so far is that while the costs and cost structures of different models are varied, it is not necessarily on account of making respective models responsive. The costs vary for a number of other reasons including the presence or absence of a certain component, the relative emphasis on various components and the pricing of a particular component in that location. What also emerges clearly is that the needs of various diverse groups and locations are indeed not similar, and a unified and homogeneous cost approach does not work. Another message that emerged from the study is that money matters: high quality and stimulating ECCE services require certain fundamental provisions and these provisions have significant cost implications. This implies that there is a threshold of costs that must be borne to ensure a particular level of 'quality' ECCE services. However, it is not clear, what those thresholds are, how to arrive at those thresholds and how to ensure 'responsiveness' while deciding the thresholds. In addition, in the context of a large-scale intervention, such as ICDS in India, the challenges of scaling-up are daunting if it amounts to creating space for flexibility at all levels while also ensuring accountability. Three particular challenges exist in such situations:

a. Centralization – decentralization dilemma: This is a classic dilemma that any large-scale governance structure faces – what decisions to be made centrally and what to be left for the lower levels to decide. The issue of accountability is often linked with this dilemma, as decentralization is also associated with control and power; if lower levels have control and power to decide, then this has to be accompanied by accountability mechanisms as well. Centralised norms and processes often become the easier choice in such situations as it offers ease of implementation. It is easy to implement a uniform norm across the state or country than having decentralised norms that need mechanisms to ensure that those decentralised norms are justified and relevant. Uniform norms are also used at times on the name of equality: since it is same for everyone, it is equal. The fact that same norms for diverse needs may mean being iniquitous does not find a place in such arguments.

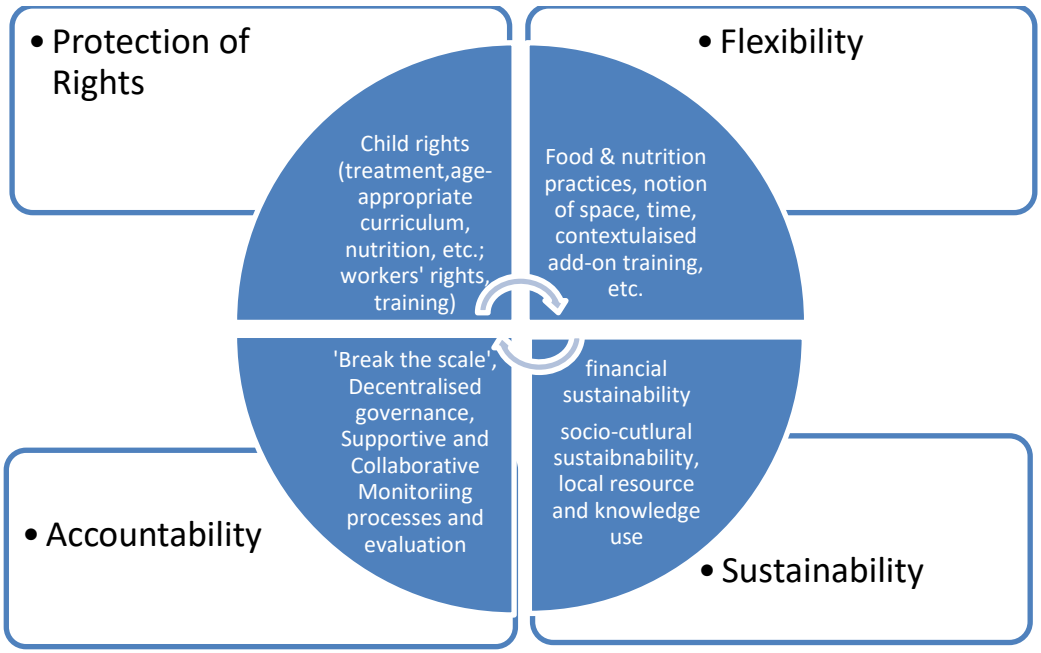
b. Planning cost norms versus estimation cost norms: This is another common dilemma that the large-scale governance structures face: definite cost norms are required for estimating the need for resources. And state or country needs to mobilise the resources for a particular intervention and estimation of resources calls for a fairly definite idea of both the requirements and their prices. And often, these estimation norms, which are fine as long as these are used for budgeting, also become planning and 'scheme' norms. This is where the problems start. Let us explain this through a simple illustration. If we decide that India on an average needs public spending USD 250 (Rs. 17850.75) per child per year for ECCE provisioning for an estimated 100 million children, and the government makes a provision for 25000 USD per year in its budget, it is absolutely fine. But then if it is extended as a universal norm that every individual centre must get that same amount and must spend the uniform amount on every sub-component, it becomes rigid, and therefore unresponsive. Therefore, planning or scheme norms must be developed as being different from estimations norms.

c. Absence of a framework that could provide mechanics of a responsive model for carrying out costing exercise: This is the biggest challenge that leads to the above two – use of estimation norms for planning, and that too in a centralized and uniform manner. By design responsive models have to be flexible and accommodative of variations and diversities. However, if everything is diverse and different, then how does one ensure any form of accountability and affirm the responsiveness or relevance?

This is where we are proposing a conceptual framework for governance that uses a set of costing principles and democratic processes to enable emergence and sustenance of responsive ECCE models. This framework, we argue, is generic in its potential for application, and costing principles can be modified to suit a particular stage of education or other public service. Our conceptual framework and especially the costing principles are derived from the analysis of models that we studied. While these were located in diverse contexts and locations, and the models differed in their approaches, commonalities also emerged in the form of essentials that must be covered. We used both these diversities and commonalities to develop the framework and principles presented here.

The conceptual framework that we propose (Figure 2) has four dimensions: (i) Protection of Rights, (ii) Flexibility, (iii) Sustainability, and (iv) Accountability.

Figure 2: Conceptual frame for developing and costing responsive ECCE models



(i) Protection of Rights

Protection of rights for determining entitlements is the first dimension of the framework. This applies to both children: the primary user of the service, and workers/teachers: the primary providers of service. We argue that once we agree to adopting rights-based approach, a number of other decisions become easier. We elaborate this further in our discussion on the guiding principles later.

(ii) Flexibility

This is the cornerstone of a responsive model in a diverse, stratified and unequal society. It is important to have the flexibility within the norms / entitlements defined by the Rights based approach to be able to respond to local and contextual notions, beliefs and practices. There

could be tension between the two, but our research shows that underneath the divergencies, there also exist notable commonalities that can help in maintaining the adherence to the boundaries set by rights-based norms while also allowing for flexibility to respond to the contextual needs. If there are formal spaces and mechanisms for dialogue and negotiations at various levels, these could be sorted out locally. For instance, universal age-appropriate norms recommend inclusion of particular physical activities for children in 3-4 years age group but our ethnographic study revealed that children in forest areas could have far more developed motor skills due to their proximity to forests and early exposure to certain kinds of activities such as climbing trees); in such contexts, the curriculum could be changed to bring in other activities to make it more relevant there.

(iii) Sustainability

The dimension of flexibility is also closely linked with sustainability. Sustainability is usually referred to only in the context of financial sustainability of an intervention. We are arguing that sustainability has various sides, including financial. A responsive service delivery model is more sustainable when it is rooted in integrating the use of local resources and knowledge on various contours of the model (education, nutrition, space, etc.) that could make those closer to the communities it is trying to serve. In addition, it can also play a role in bringing down the costs. For instance, the use of locally grown herbs and vegetables for nutrition based on advice and engagement of parents and other local community members is a regular practice followed in the TPCBCD model, which has also helped them in bringing down the cost (CBPSc, 2018) and therefore contributing to financial sustainability as well.

(iv) Accountability

One major challenge that any responsive or flexible model to be operated on a large scale in diverse locations faces is that of accountability; presence of uniform norms and processes makes planning, budgeting, flow of funds and monitoring easier. We argue that the only solution of tackling the issue of scale is to break the scale. While centralised models may appear to be easier to implement and manage, the fact that the model has been extremely limited in fulfilling the policy objective also makes it highly inefficient and ineffective. Therefore, breaking the units of scale may help in developing context specific responsive

ECCE models. The presence of the third level of governance in the form of elected bodies for municipalities in urban locations and three tier *Panchayats* at village, block and district levels makes it easier to create decentralised accountability mechanisms for monitoring of decentralised ECCE service delivery using flexible cost and other norms. Our researches have shown that the presence and inclusion of civil society organisations add value in creating safeguards and developing mutual accountability between different institutions: bureaucracy, *panchayats* and non-profit organizations (CBPS, 2018c). Such collaborations not only help in creating greater confidence among the communities but it also enables access to greater resources and knowledge, that can enrich the delivery content and processes, and in turn improve the quality of the ECCE service.

There is an obvious tension between these four dimensions of the conceptual frame, and the policy challenge lies in resolving that tension by having clearly defined boundaries for all the parameters without setting a definitive cost norm or a rigid process. While we realise that it is a challenge to design a framework for responsive ECCE model that operates on a large -scale we argue that presence of a set of guiding principles can help this happen. These principles provide the framework for developing flexible and responsive processes at decentralised levels, and act as boundaries beyond which the flexibility cannot be stretched. While we have listed some of these under the four dimensions of the conceptual framework in Figure 2, we prefer to list them together here as those are, in reality, overlapping across four dimensions.

a. Presence of a Quality Framework that determines the compulsory and desirable components for ECCE services and the linked cost-heads: It is important to have a quality frame that defines the essentials of the programme, in this case, ECCE, and the respective cost heads. For instance, table 1 in this paper identified the processes such as teaching, playing, eating, monitoring, etc. as the essential components of an ECCE delivery centre, and maps those to different cost heads. That helps in ensuring the presence of desired components / processes and to that extent ensures the enabling conditions for quality.

The literature suggests that good quality programmes with developmentally appropriate practices and curricula have been built over the years through large investments made in

curriculum development. Towards this end, it is important to ensure that certain cost-heads such as budgets for curriculum development and training are established as non-negotiable for both public and other ECCE providers. It is difficult to recommend a particular amount for this cost head, but the presence of the head would enable investments. Considering the continuous and cumulative nature of child development, ECCE programmes need to be planned appropriately, going beyond practices of simplistic downward extension of the school curriculum. In this context, it would be helpful to have a list of non-negotiables and non-acceptable practices rather than a list of must-do processes and practices. This can ensure diversity while simultaneously ensuring that programmes or models do not create adverse conditions.

b. Ranges rather than uniform cost norms:Suggestive cost ranges can be provided rather than definite uniform/homogenous costs to allow for contextual and programmatic differences to have a place. These differences can be on account of various aspects such as location (which affect provisions such as rent), purchasing power parity (e.g., for salaries) and other contextual features of models (e.g., number of working hours, qualifications, training or language or nutrition norms). We have earlier argued that the cost norms for planning have to be different from those for the estimation of resources required. As mentioned earlier, the cost norms for planning need to be facilitative that allows for contextual planning within a defined boundary of principles rather than definitive that we need for estimation of resources required. All the pieces need not be equal and same, while as a total they need to be close to what has been estimated as resource requirements. The cost ranges could facilitate responsive planning.

c. Ensuring minimum wages and social security provisions for teachers and others who deliver the programme: Professionalization of teachers / caregivers, through better salaries is important to build better quality ECCE programmes, and better quality ECCE programmes are critical if we are worried about quality of education at all levels of schooling, primary to higher. Any profession cannot be professionalized without paying the minimum respectable remuneration and social security benefits. We argue that in the case of ECCE workers in India, the remuneration must be at least equal to the minimum wage rate for skilled workers. At present, it is far from that in most Indian states.

This principle emanated from the fact that currently none of the models studied here pays the minimum wage based salaries to ECCE teachers. And it is very clear that wages are much lower than the prevailing minimum wages in most cases. Payment of minimum wages is also important to establish that equality and non-discrimination remain a non-negotiable principle for all stakeholders.

Our research studies also show the need for much deeper conscientisation of the ICDS teachers / workers in the context of a highly economically and socially stratified, and geographically diverse society (CBPS, 2018c). That also points towards the need for reforming the process of identification, education and training of these workers but introduction of such provisions also calls for first the fulfillment of workers' right to receive minimum wages and social security as a basic enabler.

d. Adjusting space and infrastructure norms to needs: Adequate infrastructural support is one of the prerequisites for meaningful ECCE delivery. A number of studies have identified space as a major constraint, especially in urban areas. At present, the only distinction that ICDS makes in its norms is between tribal and non-tribal areas; it does not do justice to the vast differences that exist in a large country like India. The current unit cost norm for ICDS infrastructure is based on one unit of building, which does not take the fact that the number of children that a centre serves or is likely to serve varies vastly. In other words, it does not take the per child need for space into account.

It would help to have a per-child need based space defined to act as the basis for estimates and the recommended unit cost for building be as a range for this space. Similarly**,** it is important to change the rent norms for urban areas and peg it to prevalent rates. This is a clear lesson emerging from non-ICDS models that given high level of migration and concentration of urban poor in urban localities, the need for providing ECCE services implies high expenditure on space. Similarly, absence of any provision for maintenance in ICDS operating out of rented buildings needs a relook, as most places on rent in urban areas where ICDS centres are located require maintenance and the owners / providers do not necessarily take that burden (CBPS, 2016).

Our research also informs that that the notion of 'adequate' and 'appropriate' space can also vary from place to place and from one community to the other. Here again, a responsive model demands flexibility to interpret the global norms in a socially relevant manner. For instance, our ethnographic work in Tamil Nadu showed that in a sparsely populated, tribal area, there may be a need to keep the infrastructure more 'open' and accessible rather than closed and confining in order to give children a sense of continuity from home to institution.

e. Linking nutrient expenditure to the required food and nutrition standards as per context: Under the ICDS, children are entitled to a morning snack (in form of milk/banana/seasonal fruits or micronutrient fortified food) as well as a hot-cooked meal at an anganwadi centre. Given the high prevalence of malnourishment and the criticality of early years' nutrition for learning as well as health in all stages of life, this is a very important intervention. India particularly faces the challenge of child malnourishment, and hence this intervention is critical. ICDS in several states have faced the criticism of serving poor quality food with low level of nutrition. For instance, our ethnographic study in Bihar also documents this complaint from parents and the community. One solution to these could be to peg these to certain universal standard norm (e.g., WHO norms). However, from our ethnographic study, it emerges that the nutrient requirement for children in different contexts might be different. Nevertheless, it is important to define a minimum standard and then allow for local variations taking local needs as well as knowledges into account. What is important to understand is that the benefits of this additional burden on public expenditure would spread over the entire life cycle of these children, leading to enhanced well-being and productivity, which would easily offset the seemingly high burden at present.

f. Location specific partnerships for training and monitoring: This is an important principle to decentralise the accountability mechanisms and allow for a large number of stakeholders to contribute in both training for and monitoring of services. Keeping in mind the need to allow for diversity as well as the challenge of scale, promoting local level partnerships is an important strategy to have. Partnerships can also take other innovative forms; for instance, the experience in case of TPCBCD in tribal Tamilnadu suggests that the presence of a civil

society organisation can play a role in improving the reliability and quality of services by engaging with the community. This indicates the need for recognising such partnerships as a mode to address the need for contextualizing the processes while also addressing the issue of scale.

g. Regulation of private ECCE Institutions on similar principles: The presence of private sector is significant in the ECCE sector in India and any kind of regulatory framework does not exist to define the parameters and ensure the provision of essential and desired processes. The ethnographic research at two sites clearly indicated the need for greater and appropriate regulation of non-state ECCE institutions. We clearly saw in Bihar that such institutions have mushroomed and those are not expected to be accountable to any norms or fee-ceilings or outcome structures. It is important that all age/stage specific norms for various components (such as space; teacher/workers' qualifications, salaries and benefits; broad curricular guidelines with a list of don'ts to avoid very early introduction of reading–writing; nutrition guidelines) become part of a 'non-negotiable' framework for running pre-school/ECCE centres by any actor: state, for-profit or non-profit institutions. In addition, ceilings must be fixed not just on user charges/tuition fee but also for compulsory contributions in kind and out-of-pocket provisions that can place a burden on poor and disadvantaged families and communities.

Presence of an enabling costing framework and principles coupled with a regulatory framework would enable loosening of 'centralized' planning and cost norms leading to evolution of responsive ECCE models in public sector. We also argue that the presence and implementation of such regulations is also likely to weed out a number of private players who would not be able to adhere to these norms, and in turn push pressures on public institutions to perform better and be more accountable to children and communities. In that context, we also question the argument that scale is an insurmountable challenge for developing responsive ECCE models. We propose that the use of this conceptual framework in conjunction with guiding principles provides a mechanism that could help implement responsive models in letter and spirit. In the next section we briefly analyse the implications of adopting this framework for ICDS in India.

Chapter 5. Policy, institutional and budget implications for the ICDS in India

Considering that the very nature of responsive model is such that it does not allow one to undertake a typical policy simulation exercise that calls for a making a choice based on definite alternatives. We, therefore, present here a brief analysis of the policy, institutional and budget implications for the ICDS in India. We start with financial implications first and thereafter go to policy and institutional implications.

As stated earlier, ICDS is India's flagship programme for early childhood education and nutrition that also combined maternal health and care in an integrated fashion. Although it started in the 1970s and was one of the first such integrated programme globally, recent evaluations have indicated a definite need for revaluation and revisions (CBPS, 2018a). One of the recent analysis of public expenditure for children for sixteen major Indian states shows that early years of 0-6 is one of the most neglected age group with least per child spending in most of these states (Jha, et al, 2019). Our own analysis in chapter 3 of the report clearly revealed that the per child annual cost is the lowest for ICDS among the models studied, and this included even those states where the state government has been adding substantial money to this scheme that is otherwise a centrally sponsored scheme. Therefore, the first implication is that the Government of India and state governments need to increase their allocations to this programme. Given that the federal policy functions in a complex manner, a sophisticated estimate needs to take state wise gaps and consequent requirements into account. Here, however, we present a simple analysis to give an idea of the quantum of increased public spending that it asks for.

5.1. Budget implications for provisioning of responsive and high quality ECCE services

While acknowledging that responsive models by their very nature are not compatible with centralised planning norms, we also realise the need for estimates which will facilitate planning for resources at a national scale. Hence, here we attempt to do that by considering four broad scenarios which might indicate the larger part of contexts that can be typically expected in India. Using these four scenarios and using the proportion of population that lives

in each of these as the weights, we arrive at an estimate of the nation wide resources required for provisioning of high quality ECCE services.

However, before we move to the exact estimation, there are various caveats to this analysis which need to be stated explicitly. These are:

- This is not a definitive estimation of the resources required. This analysis is purely indicative in nature and can only illustrate how such an exercise might be attempted
- The various assumptions adopted for this analysis might need to be modified depending on the context in which it is being applied and will not hold for all contexts
- In order to facilitate this analysis, we do adopt some standards / norms. For instance, our assumption for the costing for nutrition component is based on a standard. This will change depending on the local requirements and resources and there needs to be flexibility at the local level to accommodate these changes

Having stated the caveats, we now move towards the estimation as such. The four contexts we have considered for this analysis are i) an ECCE centre in an urban metropolitan city (for example Delhi or Mumbai) which will typically entail higher costs for space and infrastructure as well as for salaries because of the higher costs of living associated; ii) an urban / peri-urban ECCE centre ; iii) an ECCE centre located in a rural area which is densely populated where the cost of living as well as cost for the space would be lower while the centre will most likely have higher no. of children attending and iv) an ECCE centre in a remote tribal area where the costs might be lower but the number of children attending will be lesser due to the remoteness and sparseness of the location.

Table 12 below presents the average per child cost in each of these locations. The figures for the various cost estimates are based on our cost analysis work undertaken as part of this project. For some costs, we also use the estimates from the earlier work undertaken by CBPS (CBPS,2018c).

Table 13: Variation in per child cost estimates for different scenarios

Scenarios	Components	Per Centre per annum cost (Rs.)
City	Salary	187800
	Infrastructure and Space	353499
	Nutrition	108000
	Learning Materials	98482
	Training	49241
	Total	797022
	Per Child Cost	**19925.55**
Urban / Peri-urban	Salary	105000
	Infrastructure and Space	150000
	Nutrition	110760
	Learning Materials	55000
	Training	30000
	Total	365760
	Per Child Cost	**9144**
Rural Dense	Salary	75000
	Infrastructure and Space	50000
	Nutrition	110760
	Learning Materials	36560
	Training	18280
	Total	235760
	Per Child Cost	**5894**
Rural Tribal	Salary	75000
	Infrastructure and Space	27000
	Nutrition	55380
	Learning Materials	25000
	Training	14000
	Total	196380
	Per Child Cost	**9819**

The rationale underlying these cost figures are explained below.

- ***Salary:*** For salary costs, we have considered the minimum wages prevalent in respective areas for a skilled worker. These figures vary depending on the location. For instance, in case of a city like Delhi, the minimum wage considered is Rs. 626 per day whereas for the rural dense and rural tribal scenarios, these have been calcuated using Rs.250. For an urban centre, this has been considered to be Rs. 350 per day. These minimum wage figures are actually the prevalent wages in many parts of the country and show the variation that will come in.
- ***Space and Infrastructure:*** The figures used for space and infrastructure costs are based on the actual costs we observed in our study. For instance, TPCBCD, studied in this study and located in a tribal area, incurs an annual cost of Rs. 27000 on this component and we have used that figure for an estimation for the scenario.
- ***Nutrition:*** For our estimates for the nutrition component, we relied on a study[4] which estimated national and subnational costs of delivering recommended nutrition-specific interventions using the Scaling Up Nutrition (SUN) costing approach. Guided by the estimates in the study, we considered Rs. 9.23 per child per meal as the standard cost for providing a nutritious meal to children in India and calculated the total annual costs accordingly.
- ***Learning Material and Training:*** Based on this study and our earlier study (CBPS,2018c), we found that most of the quality centres were incurring around 10% of their total cost on learning materials and 5% on training respectively. Hence these figures have been estimated accordingly using these proportions.
- For City, urban and rural dense locations we have considered 40 children per centre and for rural tribal locations we have considered 20 children per centre to arrive at the per child costs.

As expected, we see a wide variation in terms of cost per child among the centres. The centres located in cities incur the highest cost per child. However, even though the centres located in tribal locations might have the least per centre per annum costs, the cost per child

[4]Estimating the cost of delivering direct nutrition interventions at scale: national and subnational level insights from India **(**https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6680110/)

for them goes up because of fewer children attending. The per child cost is the lowest for centres located in densely populated rural areas. These sort of variations need to be taken into account while deciding central allocations.

Table 14: Proportion of population and per annum per child cost

Scenario	**Proportion of population (%)**	**Per annum per child cost (Rs.)**
City	16	19925.55
Urban / Peri-urban	24	9144
Rural dense	50	5894
Rural tribal	10	9819

Table 13 presents the proportion of population (Indian) assumed to be present in each of these scenarios. These proportions are based on the census figures of India. Using the proportion of population as weights and the per annum per child costs in each of these scenarios, we arrive at an estimation of nation wide financial resource requirement for provision of quality ECCE services.

Considering the total child population between 0-6 years in India as 165 million and using the weights as above, the total funds required for India will be Rs. 153640.5 Crores per annum. Although we do not know the entire size of public expenditure on ICDS and related schemes, as it combines union and state governments' expenditure, this projected amount is likely to be at least five to ten times bigger in size. Even if one assumes that public services would cover only about half the relevant population, the country needs to increase its public sending by three to five times the current level on the ECCE services.

We also compare the projected per child costs in select states as per our estimates to that of the present spending under ICDS programme in these states to see the gap that is present. These are presented in table 14 below. As we can see, in all the states studied, the proposed estimates are higher than what is being spent at present. However, the gap varies considerably for the states. The gap is the highest for the state of Bihar. Whereas, for a state such as

Odisha, which is not very different from Bihar in terms of their status in development, the gap is not that large.

Table 15: Indicative gaps in funding

State	Proposed Estimates (Rs. Per child per annum)	Present Spending (Rs. Per child per annum)
Odisha	6157	5710
Bihar	6261	1203
Tamil Nadu	7510	4094

Our analysis in this section, while not definitive, definitely tells us that there need to be flexibility in terms of costing norms depending on the local context, the resource allocation at a national level in terms of funding needs to be much more than at present for provisioning of quality ECCE services and certain states might need to spend much more than present to meet the deficits present.

5.2. Policy and Institutional Implications for provisioning of high quality responsive ECCE services

Next, we discuss the institutional implications of adopting this framework and the set of principles. Towards that we present a comparative matrix of present practices and the likely changed practices that adoption of such a framework would lead to, especially in terms of deciding the cost norms:

Table 16: Nature of Current and Proposed norms/guidelines for ICDS and associated schemes

Head / Processes	Current norm/guideline	Changed norm/guidelines
Teacher / worker salary	Fixed at a low rate and revised only periodically, the period of revision not being fixed or regular	Pegged to minimum skilled wage rate per hour, and therefore automatically revised if there is any change
Teacher training	No or varied allocations – generally very low and only at the	Compulsory allocation for induction and regular training on fixed periodicity;

	time of induction in resource poor states; slightly higher in resource rich states	A range per centre/per teacher or worker annual allocation (with a ceiling)
Curriculum and teaching learning materials	No or a small amount for new centres; periodic additional amount in some states – periodicity not fixed	A range per new centre and a range for per-child allocation annually (with a ceiling); with space for varied usage based on collective decision at decentralised levels
Nutrition	Wide inter-state variation depending upon specific state's priorities; central norms minimalistic and not based on any standards	A range based on universal standards with space for local variations based on collective decisions at decentralised level
Space and infrastructure	Per centre specification; variation only for tribal and non-tribal or hilly areas	Per child space norm based on the range of activities (eating, sleeping, playing, leaning activities, mothers' activities) into account; cost range rather than fixed norm linked to local prices; rent norms pegged to space need and prevalent market rents into account
Health	Wide inter-state variations; varied practices with good coordination with the Department of Health in certain states and none of that in others for immunisation and regular health checkup	Incentivising active coordination with the Department of Health for immunisation and regular health checkup; based on 'good practices' adopted by states where the coordination is successful
Management and monitoring	No separate allocation in scheme in most states; the Women and Child Welfare Department (WCD), where the schemes is generally located, take care of this	Provision for periodic local management and monitoring by a multi-stakeholder group (government, civil society, panchayats, professional) with an in-built mechanism for providing feedback

	through the department's budget	to community through a small allocation

This matrix shows that the cost norms can be designed in the form of guidelines allowing for local variations both in terms of the choice of how it is to be implemented and how much to spend. As mentioned earlier, the norms should act as guidelines for local programming and could also incentivise local mobilsation of human or financial resources through innovative measures but without disincentivising the absence of such measures.

Next comes, the policy implications. The most important change that the policy needs in the context of ECCE in India is the recognition that it is one for the most important stages for the child's emotional, mental, intellectual and social development, as shown by various researches in different contexts (CBPS, 2018a). At present, despite presence of a large scale integrated programme, this view is not necessarily present in a coherent manner in the country and states. Although the Government of India has adopted a progressive Child Policy[5], all the states are yet to evolve similar policies, and more importantly, back these with institutional mechanisms and budgetary allocations. Policy documents without the presence of commensurate institutional frameworks and adequate budget allocations cannot bring much difference.

In the end, coming back to the issue of estimating costs of service delivery, we argue that it is essential to undertake that task to be able to develop appropriate policy, institutional frameworks and costing norms. We also argue that in a large scale and diverse country like India, it is important to promote responsive models not only in ECCE but also various stages of education and other public service delivery sectors, and the conceptual framework alongside guiding principles that we have proposed has potential for universal adaptation and applicability.

[5] https://wcd.nic.in/sites/default/files/npcenglish08072013_0.pdf

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