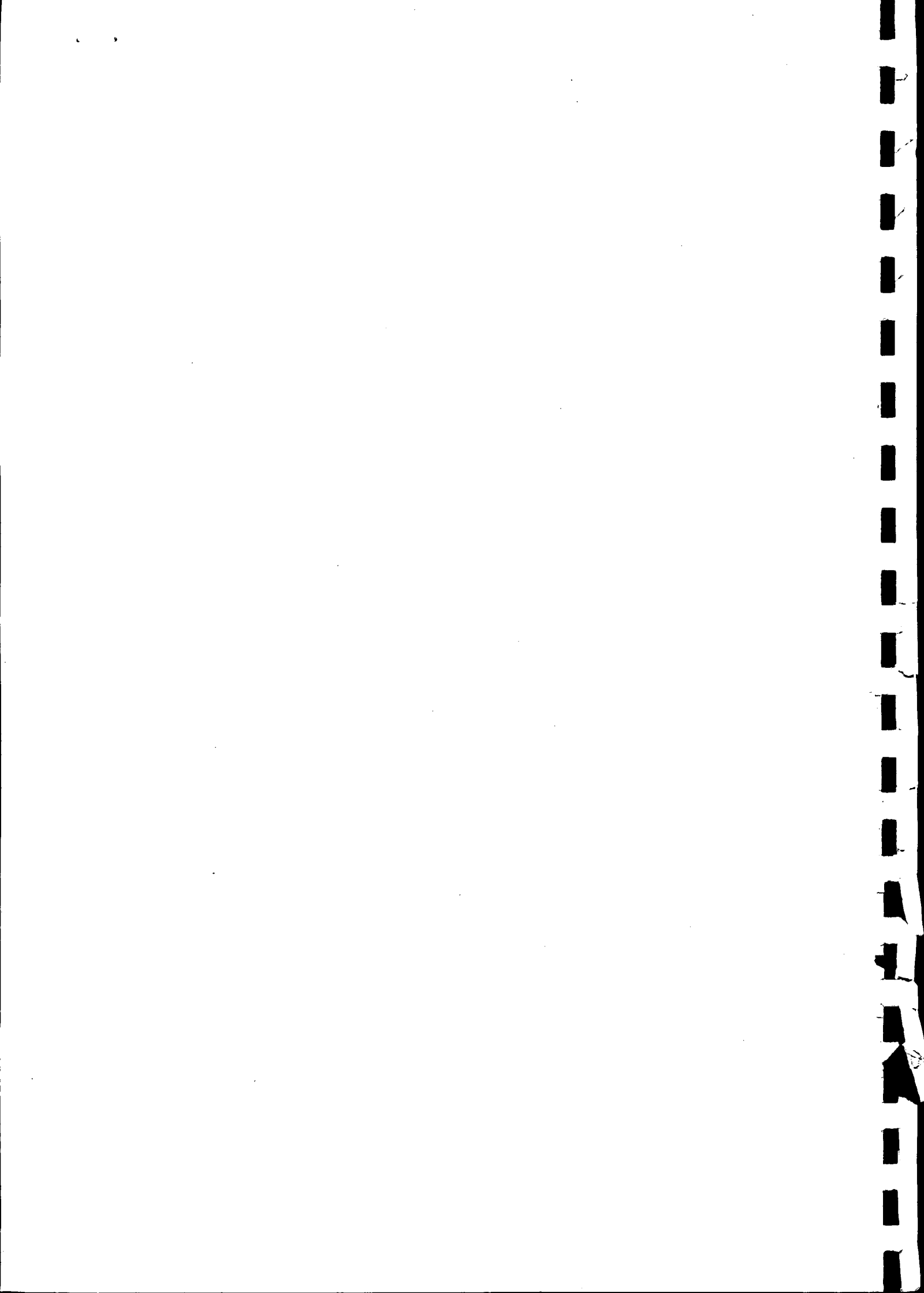


# **Costing Child Care Services**

T.R.L. Narasimhan  
J. Jayanthi Rani Christiana

a proposed cost framework and  
sample analysis with ICDS as  
a model in Tamil Nadu

**M.S.SWAMINATHAN RESEARCH FOUNDATION**  
Chennai



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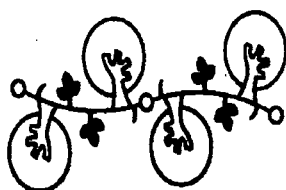
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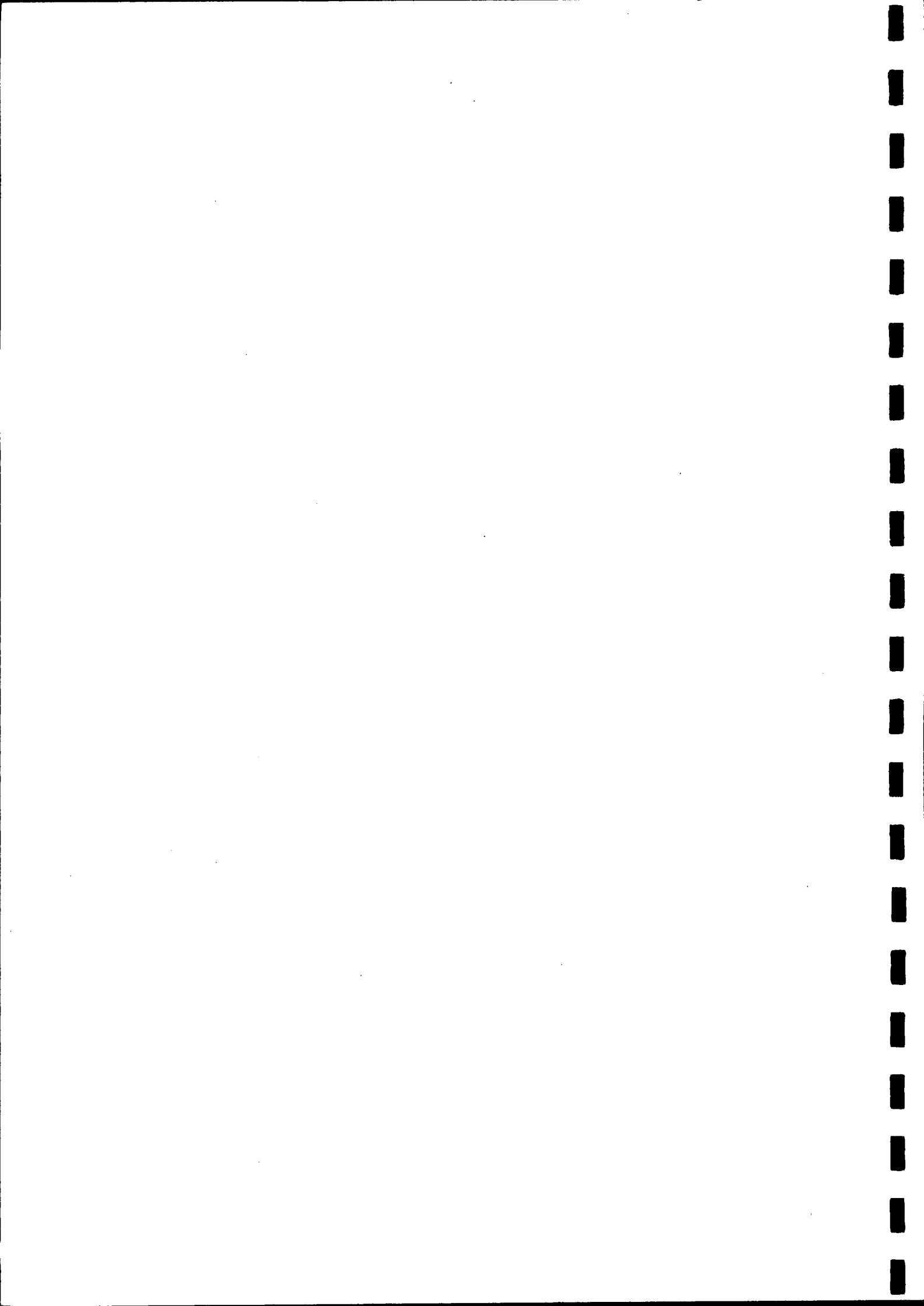
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## Preface

Tamil Nadu has been a pioneer in the development of child welfare services in the last few decades. The Noon Meal Programme, launched by the visionary late Chief Minister M.G. Ramachandran, as well as the Tamil Nadu Integrated Nutrition Programme, a well-known success story in targeted programming, are both outstanding examples of the commitment of the State to the welfare of young children.

With such large and continuing investment in social sector programmes, it becomes imperative, from the point of view of effectiveness and sustainability, to look into the relationship between costs and benefits, both in order to strengthen efficiency and effectiveness, as well as to study alternative patterns and management strategies. Only then can it be ensured that funds are allocated in the best possible manner and that visible benefits, even if they cannot be expressed in monetary terms, result from each expenditure.

Before embarking on cost effectiveness or cost-benefit studies, it is necessary to start with cost analysis, and this small study is intended to be a first step in exploring and identifying methodologies towards that end. The study, taking ICDS as a model in Tamil Nadu, first develops a framework for cost analysis, and then goes on to document costs within that framework and conduct a sample analysis using some of the data collected. Due to the limitations of time and resources, and of access to Government records, the sample analysis has perforce had to be limited. However, the immense utility of a preliminary study of this kind lies, not so much in its findings, as in its careful delineation of the approach, which indicates the concrete steps now to be taken to complete the analysis required for policy purposes. We hope that Government will soon take the initiative to undertake a comprehensive cost analysis with the help of this tool, which can then be followed by cost-effectiveness and cost benefit studies.

We are grateful to the Government of Tamil Nadu for giving us the permission to conduct this methodological study and for providing access to the necessary records, and for the co-operation and support extended by all officials of various Government Departments. We are also grateful to the Bernard van Leer Foundation for financial support for this study.

I must record my heartfelt appreciation of the commitment and enthusiasm of the authors, T.R.L. Narasimhan and J. Jayanthi Rani Christiana, who have gone about this laborious and complex task in a thoroughly painstaking and professional manner. The recognition of the utility of the study will be their best reward.

**Mina Swaminathan**

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## Glossary

Administrative Costs	These are costs which cover all expenditure incurred in formulating policy, directing the organisation and controlling the operation of an undertaking, which contribute to the overall program.
Allocated Costs	Expenditure incurred by a department when the benefits are enjoyed in various other departments.
Costs	Cost is defined as the amount of expenditure (actual or notional) incurred on or attributable to a program. Costs are ascertained by cost centres or cost units or by both.
Cost Centre	It is defined as a location, person or item of equipment (or group of these) for which cost may be ascertained and used for the purpose of cost control.
Cost Unit	Cost unit is a device for the purpose of breaking up or separating costs into smaller sub-divisions attributable to products or services. It is the unit of quantity of product, service, time or a combination of these in relation to which costs may be ascertained or expressed. The forms of measurement used as a cost unit are normally the units of physical measurement like number, weight, area, volume, length, time and value.
Depreciation	A fixed asset like plant and machinery, equipments, furniture etc. has a life span during which it renders service of the nature it is intended to give and on the expiry of which, the asset has no value or sometimes a negligible value. During the period of the life of the asset, its value is gradually reduced till it reaches nil or a small figure. This reduction in value is called depreciation
Expenditure	If any program item is expressed in terms of monetary value, then it is called an expenditure.
Market Value	The rate at which goods (inclusive of taxes) are available in the open market at the time of purchase.
Marginal Costing	Marginal cost is the aggregate of variable costs. Marginal costing system is based on the classification of costs into fixed and variable costs. The fixed costs are excluded and only the variable or marginal costs are taken into consideration for determining the costs of products.

- Opportunity Cost      These costs refers to the costs that were incurred due to selection of one alternative instead of the other.
  
- Program Costs        This refers to the value of each resource that is consumed when the program implements a service component.
  
- Rent                    This is the payment to the owner to make use of land and buildings
  
- Replacement Costs    Replacement costs represent the costs that are incurred to replace a fixed asset. These costs are ascertained at the current market value i.e the cost that has to be spent today to buy or create a particular asset.
  
- Total Cost            This is the sum of all costs attributable to the unit under consideration. This may refer to the total costs of a process, a program component or cost centre or the entire program as a whole.

## Abbreviations

ANM	Auxiliary Nurse Midwife
CCC	Child Care Centre
CDPO	Child Development Project Office
CHC	Corporation Health Centre
DPT	Diphtheria, Pertussis, Tetanus
ECDD	Early Childhood Care and Development
ICDS	Integrated Child Development Services
LHV	Lady Health Visitor
N.A.	Not Available
NGO	Non-Government Organisation
NIPCCD	National Institute of Public Co-operation and Child Development
OHP	Over-Head Projector
OPV	Oral Polio Vaccine
PDS	Public Distribution System
PHC	Primary Health Centre
PTNMP	Purathchi Thalaivar MGR Noon Meal Program
SIDA	Swedish International Development Agency
SLM	Straight Line Method
TIDCO	Tamil Nadu Industrial Development Corporation Limited
TNSCB	Tamil Nadu Slum Clearance Board
TT	Tetanus Toxide
Wakf Board	A Religious Organisation managed by Muslims
WDV	Written Down Value

## Introduction

### Why cost studies at all ?

In the context of Article 4 of the UN Convention on the Rights of the Child, the financial mechanisms used to implement Early Childhood Care and Development (ECCD) programs are very important, as the signatory nations to this historic document have agreed to employ all available resources for the protection and welfare of children (Cardona et al. 1993). Early Childhood Care and Development programs have in recent decades expanded enormously in size with a corresponding increase of public investments in such programs (M.S.Swaminathan Research Foundation, 2000). These programs have been shown in several studies to enhance school readiness, increase the efficacy of investments in primary schools and human capital formation, foster beneficial social behaviour and thereby lessen social welfare costs and promote community development as long term benefits (Barnett, 1985; Berreuta-Clement, Schweinhart, Barnett, et al., 1984). It is also accepted that ECCD programs have taken over responsibilities traditionally invested in parents, older children and community and that cost analysis of programs leads to effective cost-control and decision making. But they also reflect new expectations for the quality and efficacy of early childhood initiatives. Over a period of time, ECCD interventions have served as part of the process of change in varying degrees as cause, catalyst, antidote and remedy (Woodhead, 1996).

Investment in child development is viewed not only as a desirable societal investment for the nation's future but also as fulfillment of the rights of every child to 'survival, protection, and development' so as to achieve their full potential, says the Approach Paper to the Ninth Five Year Plan of the Indian Government. In this context, a growing body of evidence from a diverse array of disciplines has thrown important insights into ECCD interventions, especially on its long-term impact (Kaul et al., 1993; Barnett, 1985; Schweinhart et al. 1993; Sylva, 1994). In India, several evaluation studies have looked into the nutritional, pre-school, health and community participation aspects of these programs (Sahni et al., 1984; Devadas, 1986; Tarapore et al. 1986; Sharma, 1987; Sood, 1987, 1996-97; NIPCCD, 1992; Khosla et al., 1985; Vasudevan, 1999). However, there are hardly any studies that highlight the links between the program characteristics, costs and outcomes to the user communities (M.S.Swaminathan Research Foundation, 2000).

## How this initiative emerged

To explore such links, a process was initiated at the M. S. Swaminathan Research Foundation in 1998 to develop indicators for analysing costs and benefits of ECCD programs. Through several discussions and input sessions, a discussion paper was drafted for this purpose. The paper provided details on approaches for a possible study to capture direct and indirect benefits that accrued to different stakeholders like children, adults, communities and society as a whole and suggested a framework to monetise them. Indicators to measure these benefits were also listed down. Later this paper was circulated to academicians, economists, ECD practitioners, donors and consultants for their comments. New perspectives on costs and benefits emerged from this exercise. It was then decided to convene a brainstorming workshop to fine-tune theoretical concepts and plan a suitable methodology. The workshop was organised in September 1999 and it had a broad based agenda on indicators for measuring and monetising benefits, advantages and disadvantages of different costing methodologies like cost utility, cost effectiveness and cost benefit analysis (M.S.Swaminathan Research Foundation, 2000). Varied perspectives were received from participants representing different disciplines and approaches. The outcomes of the workshop have been documented in a report "Taking Stock". The final outcome of the workshop was the decision to adopt a manageable strategy by carrying out the costing process in several stages, the first being an attempt to develop a framework and document costs of ECCD programs, before going on to cost-effectiveness and cost-benefit analysis.

Based on this suggestion, M. S. Swaminathan Research Foundation, considering the limitations of time and resources, decided to carry out the first stage of developing a costing framework using ICDS as a model in Tamil Nadu. The current initiative is a step towards that direction. This framework is therefore intended to urge policy makers and other stakeholders to take up in-depth and large scale studies to look into the cost effectiveness and cost benefits of ECD programs. This initiative is not an end in itself but just a beginning to work with cost frameworks.

Program interventions influence and are influenced by developments over a period of time. Cost frameworks help in capturing the required data for analysis of the costs of implementing such programs, and enable planners and administrators to take efficient decisions regarding the allocation of scarce financial resources and their management. It could also help in estimating the future resource requirements for different program components. In this context, this attempt in designing a cost framework assumes importance in documenting the nuances of program components and its costs.



To fine-tune the framework, ICDS as a model in Tamil Nadu was selected for the sample analysis. Costs incurred at various levels have been included in appropriate slots of the framework so that it could further help policy makers to design studies for large scale cost analysis. Quantification and monetisation of services/benefits will pave the way for a review of trends in cost variations and could lead to maximisation of efficiency in expansion and delivery of services in the near future.

This study was designed with the following objectives:

1. To formulate and design a standardised cost framework.
2. To initiate a sample cost analysis of ICDS (including SIDA costs) in Tamil Nadu.
3. To identify gaps in cost documentation.

### **Limitations**

Being the first attempt to tailor a framework for analysis, there are several limitations in this exercise. At the outset, it is necessary to clarify that though the terms **costs** and **expenditures** are sometimes synonymously used, there is a clear distinction between the two. Expenditure can be defined as the money expenditure incurred on any item relating to the process, irrespective of the source of expenditure. On the other hand, costs can be defined as the value of all the inputs that go into the process, i.e. it includes the value of not only those inputs for which expenditure was incurred, but also for which no expenditure was incurred. In other words, while expenditure is expressed only in monetary terms, costs can be expressed in monetary as well as in real or physical terms (Tilak).

In this study, only reported expenditure of selected ICDS services incurred at various levels in the organisational hierarchy (State, Project and Centre) have been included in appropriate slots of the framework. The various reporting heads of ICDS like SC, SD, AZ, SA and PA (details reported in the section on sample analysis) maintained for items at the Directorate of Social Welfare were not kept in their original format but were modified to suit the framework. Allocated expenditure on some of the ICDS services and cost items, such as capital expenditure or health services, incurred by agencies such as the Directorate of Medical Services, Department of Municipal Administration, Public Works Department, Tamil Nadu Slum Clearance Board, Department of Rural Development, Department of Animal Husbandry and others have not been included in the sample analysis. This is because of the difficulty of including such expenditure incurred at different time periods by different agencies in the time available.

Another limitation is that the authors themselves, on the basis of the quota allotted per child in ICDS and the reported costs of food items during 1998-1999, had to make estimates of Noon Meals expenditure under supplementary nutrition. This was done because of the allocated nature of expenditure which was incurred by another program known as the Puratchi Thalaivar MGR Noon Meal Program for items like rice, gram, oil and salt and for which no separate reports were available at the time with the ICDS authorities. The Tamil Nadu Civil Supplies Corporation has supplied these Noon Meal food items and it was impossible within the limited time frame to collect details on the amount of handling and loading charges paid directly by the Government. Therefore, the estimates included in the sample analysis will not provide accurate cost figures. Except for children aged between 0-6 years, all other users of Noon Meals and Supplementary Feeding in supplementary nutrition have been excluded in the sample analysis. Yet another limitation is the lack of documentary evidence on reported contributions from the community and Child Care Workers.

The cost data used in the sample analysis therefore is a mix of reported and estimated expenditures of selected ICDS services, and may not in all cases reflect field realities. Hidden factors known to have affected performance of the program also do not figure in this analysis. All interpretation of data collected from the Child Development Project Offices and Centres are those of the authors themselves and no one else can be held responsible. Non-availability of proper documentation and inadequate time are reasons for restricting the analysis to a few samples

## Part I

### The Framework

Designing a framework most often requires a replicable program model as a base for theory. This initiative therefore, has used Integrated Child Development Services (ICDS) as a model to formulate and develop the framework. As ICDS is an universally acknowledged national program with a vast outreach and implications for different stakeholders in India, it was considered appropriate to use this program as a model for the framework. Moreover, this program has numerous intervention strategies for different user categories which are offered by several Government Departments and other agencies. The diversity offered by ICDS has encouraged the current process of designing the framework. As the recent integration of Government run ECCD programs in Tamil Nadu (Tamil Nadu Integrated Nutrition Program and the Integrated Child Development Services) is expected to scale up the demand for effective services, it was also felt important to explore and capture some of these interventions at this juncture.

### The Approach

As ICDS was taken as the model for designing the framework, it was considered necessary to first understand the field realities of program management and delivery of services. Therefore, a bottom-up approach was used to trace the organisational hierarchy instrumental in program implementation. Child Care Centres, the focal point for direct program implementation were visited to gather first-hand information on the nature of records available and type of service delivery offered to users. As there were rural-urban variations in delivery of health services, additional data had to be gathered for this component in the framework. A similar process continued at the Child Development Project Offices, District Program Offices and the Directorate of Social Welfare. These visits initially helped in rapport building with different field, administrative and program functionaries. Background information on the program was also collected through interviews with functionaries. For more clarity, formats of financial and program reports were obtained. A schematic summary of the framework was then prepared as follows:

#### 1. Project Design Summary

- 1.1 Program Title and Objectives
- 1.2 Geographical Spread of ICDS Services in Tamil Nadu
- 1.3 Services and Components
- 1.4 Program Sub-components
- 1.5 User Categories
- 1.6 Types of Costs

**2. Capital Costs**

- 2.1 Land
- 2.2 Buildings
- 2.3 Vehicles
- 2.4 Office Equipment
- 2.5 Furniture and Fixtures

**3. Revenue Costs****3A. Administrative Costs**

- A1. Depreciation
- A2. Rent
- Fuel
- Repairs and Maintenance – Buildings, Vehicles, Office Equipments and others
- Printing and stationery
- Communication
- Travel
- Rates and Taxes
- Other Costs
- Personnel Costs*
- Composition and Numbers of Program Personnel
- Pay and Allowances

**3B. Program Costs**

- Supplementary Nutrition – Supplementary Feeding and Noon Meals
- Materials - Play Materials and Teaching-Learning Aids
- Health Check-ups
- Immunisation
- Referral Services
- Training, External Seminars and Conferences
- Community Contribution

**4. Management Information System****5. Steps in Costing**

This summary format served as a checklist of relevant practical issues to be addressed within the framework rather than as an administrative model. Depending on specific information needs, this format was adjusted wherever necessary using the sample analysis reported in the next section.

### 1. Project Design Summary

In any project cycle management, it is essential to establish the focus of the project in terms of the project purpose, that is the objectives at various levels related to the stakeholders in the project; Government, implementing authorities and the users (beneficiaries). In order to achieve the objectives, a number of services may need to be available. Some of these services may be supplied by the concerned project. Other services which cannot be made available by the project but which are nevertheless essential to achieving the project objectives are assumed to be supplied by external agencies. It is equally essential to identify these external agencies in order to ascertain total costs. The following are the various identified components of ICDS:

**Figure 1**

#### 1.1 Program Title and Objectives – Integrated Child Development Services

<p><b>Objectives</b></p>	<ol style="list-style-type: none"> <li>1. Lay the foundation for the proper psychological, physical and social development of the child</li> <li>2. Improve the nutritional and health status of children below the age of six years</li> <li>3. Reduce the incidence of mortality, morbidity, malnutrition and school dropouts</li> <li>4. Achieve effective coordination of policy and implementation among various departments to promote child development</li> <li>5. Enhance the capability of the mother to look after the normal health, nutritional and development needs of the child, through proper community education.</li> </ol>
--------------------------	---

Source: Integrated Child Development Services (ICDS), Department of Women and Child Development, Ministry of Human Resource Development, Government of India.

**Table 1**  
**1.2 Geographical Spread of ICDS Services in Tamil Nadu**

S.NO.	District	Number of Projects			
		Urban	Rural	Tribal	Total
1	Chennai	12	0		12
2	Coimbatore	5	1		6
3	Cuddalore	1	3		4
4	Dharmapuri	0	3		3
5	Dindigul	1	2		3
6	Erode	1	0		1
7	Kancheepuram*	2	13		15
8	Madurai	4	0		4
9	Nagapattinam	1	1		2
10	Nagercoil	1	0		1
11	Namakkal	0	0	1	1
12	Nilgiris*	0	4		4
13	Pudukottai*	0	13		13
14	Ramnathapuram	0	3		3
15	Salem	2	2		4
16	Sivagangai	0	1		1
17	Thanjavur	2	0		2
18	Theni	1	0		1
19	Thiruvallur*	2	14		16
20	Thiruvarur	0	2		2
21	Tirunelveli	1	0		1
22	Trichy	2	0		2
23	Tuticorin	1	1		2
24	Vellore	3	1		4
25	Villupuram	1	0	1	2
26	Virudhunagar	1	3		4
	<b>Total</b>	<b>44</b>	<b>67</b>	<b>2</b>	<b>113</b>

\* SIDA supported projects

Source: Directorate of Social Welfare

If an analysis needs to be done, a representative sample from the 113 Projects in 26 Districts would have to be selected. There may be early and late started projects and child care centres, which would lead to variations. This could also help in calculating per project and per centre costs. If analysis needs to be done on performance in the rural, urban and tribal areas, then this format can be modified to include such aspects. A five-year time period would be helpful to study trend variations in the expansion of child-care services.

Any program offering services to reach its user communities has numerous components with in-built strategies. A careful cost break-up of components enables policy planners to trace the performance of the program as a whole. It will also serve as a checklist to find the service providers of these components. Under-utilisation and over-utilisation of resources between components could be traced out through such an exercise.

**Figure 2**  
**1.3 Services and Components**

Services offered by ICDS	Components
1. Health	1.1 Immunization 1.2 Health check-ups 1.3 Referral services 1.4 Treatment of minor illnesses
2. Nutrition	2.1 Supplementary feeding (Noon meals and Supplementary Feeding) 2.2 Growth monitoring and promotion 2.3 Nutrition and health education
2. Early Childhood Care and Pre-school Education	3.1 Early care and stimulation for younger children (under three years) 3.2 Early joyful learning opportunities to children in the three to six years age group
4. Convergence	4.1 Of other supportive services, such as safe drinking water, environmental sanitation, women's empowerment programmes, non-formal education and adult literacy

Source: Integrated Child Development Services (ICDS), Department of Women and Child Development, Ministry of Human Resource Development, Government of India.

Data collection would be an enormous task as different Departments are involved in providing the specific components reported above. The Department of Medical Services and Department of Public Health offers health services. Noon Meals are provided under the Puratchi Thalaivar MGR Noon Meal Program (PTNMP) of the Department of Social Welfare and Nutritious Meal Program along with Government subsidies offered to the Tamil Nadu Civil Supplies Corporation for procurement and handling charges of Noon Meal items like rice, gram, oil and salt. The Industrial Co-operative Societies are involved in the manufacture and distribution of Supplementary Feeding. Oil is procured by the Tamil Nadu Civil Supplies Corporation from the State Trading Corporation of the Government. However, it could not be established whether subsidies are offered. Known sources reported that subsidies are offered only for rice but there could be additional subsidies borne by the Government on other Noon Meal items.

It could not be clarified whether awareness and training programs are a separate cost category but personal interviews revealed that it may figure under other Departmental/ institutional heads at the Centre. In the past, the Tamil Nadu Integrated Nutrition Project may also have offered such programs. A thorough scrutiny needs to be done further.

Further break-up of program components as inputs would enable arriving at the actual costs spent per unit of services provided to different user communities. Data on the actual number of units provided as inputs, the frequency of such inputs and reach also need to be gathered to derive costs.

**Figure 3**  
**1.4 Program Sub-Components**

Components	Sub-Components
Immunization	Vaccines (BCG, DPT, OPV, TT, Measles)
Health check-ups	1. Recording of weight 2. Verification of immunization status 3. Administration of FST, Vitamin A and Deworming medicine
Referral services	1. Case recording 2. Referral to PHC, CHC, Sub-centre
Treatment of minor illnesses	1. Hospital referrals 2. Home based care
Supplementary feeding	1. Provision of noon meal- pulses, cereals, oil, vegetables, sugar/iodised salt 2. Provision of Supplementary Feeding
Growth monitoring and promotion	1. Recording of weight and height in growth cards 2. Counselling
Nutrition and health education	1. Counselling 2. Home visits 3. Demonstrations 4. Awareness campaigns
Early care and stimulation for younger children under three years	1. Interventions with mothers/caregivers
Early joyful learning opportunities to children in the three to six years age group	1. Play way activities 2. Pre-school education

Source: Adapted from Integrated Child Development Services (ICDS), Department of Women and Child Development, Ministry of Human Resource Development, Government of India.



These program inputs may be still further broken down, for example, to get details on costs:

- How many vaccines and number of sessions?
- Frequency – Daily, Fortnightly, Monthly, Bimonthly
- Who benefits? (Women, ANC, PNC, Adolescent Girls, Children (6 Months – 2 Years, 2 Years - 5 Years, Old Age Pensioners)
- How many enjoyed the benefits?
- Duration of each activity
- Materials utilised for the session

Users of the program also need to be identified for verification of the exact out-reach. The reported number of program users in the performance reports like children who had attended preschool and number fed with Supplementary Feeding may differ from that of the total child population served in that particular area.

**Table 2**  
**2.5 User Categories (ICDS figures at the Tamil Nadu State level)**

Users	Reported Numbers from the Population Served	Actual Numbers Fed
Children (6 months – 2 years)*	1,97,977	1,61,727
(2 years – 5 years)**	3,63,941	3,14,381
ANC Mothers	77,172	67,931
PNC Mothers	85,579	72,826

\* Supplementary Feeding Users \*\* Pre-school Attendees Key: ANC – Antenatal Care, PNC – Postnatal Care  
Source: Performance Reports, Directorate of Social Welfare

The above mentioned figures were taken from performance reports which are maintained at all levels – Directorate, District Project Offices, Child Development Project Offices (CDPOs) and Child Care Centres (CCCs). Data pertaining to the level being studied may be gathered specifically from the appropriate level for a cost analysis. These performance reports provide vital data on the entire population being served by the CDPOs and CCCs and on the different user categories (male, female, 0-2 children, 2-4+ children etc.). As the performance reports are usually updated on a yearly basis, the data could be relied upon for cross checking the number of actual users with that of the cost incurred for a particular item.

In this context, the performance reports could also be utilised to estimate relative efficiency of the program. Efficiency is the measure by which the success of a program is determined. Normally, a standard is fixed and it is compared with the actual attainment of the standard in terms of percentage. The standard is normally fixed at 100 percent in the industrial sector and the actual percentage achieved is compared with this standard. Later an analysis is done to see whether the program has achieved its objectives or not. Any percentage above 75 is considered to be a good indicator of program performance and it can be construed that the objectives have been achieved. But this yardstick used in the industrial sector cannot be applied in this framework as ICDS is a welfare program involving human beings. But an attempt could be made in consultation with experts in the field of Early Childhood Care and Development to work on such standards. If this is done, it could be determined whether ICDS has achieved its objectives or not.

### **1.6 Types of Cost**

Any program normally includes two types of costs – capital and revenue. The first is the cost incurred for acquiring a capital asset and the second is for the day to day expenses incurred for running the program. The revenue costs are taken for any costing purpose but as far as the capital cost is considered they are accounted by way of depreciation. In any cost analysis, data on both these cost categories are important.

The easiest way to distinguish between capital and revenue cost is that if the benefit derived out of a cost incurred is enjoyed for more than one year then it is a capital cost. If the benefit is enjoyed only for a single year, it is a revenue cost. The cost has to be recurring to enjoy the benefits for each year. Hence it can be safely concluded that while revenue costs will be recurring in nature, capital costs will be non-recurring.

Examples of capital cost: Purchase of assets, investments etc. When a car is purchased, it is a one time investment. The benefit arriving out of it is for more than one year. A car can be driven for 5 to 10 years once it has been purchased and it can be termed as a capital cost. However, regular expenditure has to be incurred to make it run, like fuel expenses, repairs and maintenance and these are revenue in nature.

Examples of revenue costs: purchases, salaries, travelling costs, etc. Salary is paid each year to get work done from the employees. If no salary is paid for a particular month then the work will get affected. To enjoy the benefit of work, salary has to be paid at regular intervals and this can be termed as a revenue cost.

## 2. Capital Costs

In any program, there are certain vital capital inputs that may be acquired from different sources. The value of capital items like land increases over time but there are other items whose value tends to diminish. The returns received from such capital items need to be included in a cost frame work as they are essential prerequisites to derive the overall costs of a program.

### 2.1 Land

Land is an immovable asset of any program/organisation owning it. All tracts of land acquired by purchase or otherwise need to be included as capital assets in a cost framework. There are different types of land available – common lands belonging to municipalities and village panchayats, agricultural land, waste land, temple land, Wakf Board land, private land, railway land, etc and the ownership of these may vary. For example, the common lands (also known as Common Property Resources) belong to the local community as a whole and they may allot some portion of it to the Government to implement welfare schemes. But in cases where a third party other than the owner would like to enjoy possession of private lands, a definite sum in terms of rent or lease amount is paid. The type of land and its guideline value, usually fixed by the Registration Department determines the actual price of a particular piece of land and it may vary from one location to another. Therefore, it is important to estimate the land value in relation to the extent of land in possession by the owner in order to allocate the proportion of capital costs to a particular program being analysed. This can be done only through scrutinising land records of different Departments.

For example, Indian Railways have a Land Management Board that maintains two important registers – Land Register and Land Boundary Verification Register. Land Registers contain details of location, land plan number, kilometerage, description, area, cost of land, reference to Government resolution, date of sanctioning transfer of land and remarks to show the date of actual transaction, complete series of land plans, original certified tracings and certified land plans. Land Boundary Verification Register indicates land demarcation and periodical verification done on the boundaries. They also contain details of encroachments, missing boundary stones and action taken thereon. Up-to-date and accurate land plans of all land, duly accepted by the revenue authorities of the State Government establish that the ownership/title of land vests with the concerned Department. A similar system might be available in other Government Departments and it is necessary to trace out their land record management practices. If this is done, it would be easier in costing of land which may be done on the basis of the following methods:

- Current purchase value is the prevalent rate at which cash payments are done. The value is determined on the basis of identified ownership rights to specific land in a

particular urban or rural area as of a given date. The price can be negotiated and brought down by 5 percent of the total value of land.

- Guideline value is fixed by the Departments of Land Registration and Income Tax. The quotes between these two departments may vary but it is necessary to adhere to the ceiling fixed by the Land Registration Department. Moreover, it may also be necessary to contact the appropriate local authorities to find differences in urban and rural land values. Differences need to be worked out if such an initiative is taken up.
- Fair market value is the price that would be agreed to in an open and unrestricted market between knowledgeable and willing parties dealing with a transaction without any compulsion to transact. Sometimes there would be a transaction at a discounted rate with negotiations on settling the agreed sum of money (in both black and white) based on the current purchase value.

It is essential to collect information on the ownership of land as it determines whether a fixed sum has to be paid or not by a program or Department wanting to make use of it. The rental or lease value of the land may vary according to the type of land possessed by the owner. The owner can be a private individual, a community, bodies like Government Departments and other public sector undertakings. Data on ownership and type of land in Tamil Nadu is most vital to estimate costs.

For example, in a Government program like ICDS, land as a capital item is acquired from third parties to achieve the outlined objectives. Acquisition of land is either in the form of taking possession through ownership or by transactions like rent and long-term lease. The table below provides details on the ownership of land being used by ICDS in Tamil Nadu:

**Table 3**  
**Land Ownership (in nos. at the end of 1999)**

S.No	Name of the Project*	Municipality	Panchayat	Corporation	Rent Free	Private	TNSCB	Total
1.	Tambaram	410	2,093	0	100	512	0	3,115
2.	Salem	61	197	118	21	59	0	456
3.	Ooty	58	207	0	0	95	0	360
4.	Cuddalore	139	244	0	16	130	0	529
5.	Thanjavur	378	140	0	38	77	0	633
6.	Chennai	0	0	630	17	13	267	927
7.	Tirunelveli	150	250	110	11	126	0	647
8.	Coimbatore	124	26	251	34	56	0	491
9.	Madurai	170	396	216	25	74	0	881
10.	Krishnagiri	276	348	0	0	39	0	663
11.	Pudukottai	18	600	0	50	575	0	1,243
	Total	1,784	4,501	1,325	312	1,756	267	9,945

Source: Directorate of Social Welfare      Key: TNSCB – Tamil Nadu Slum Clearance Board

\* Details of land ownership in other projects in not known

In the above table, it is evident that six public and private bodies are involved in providing land to ICDS in Tamil Nadu. The Panchayats own a major chunk of land in Tamil Nadu followed by the municipalities and other private parties. It is assumed that subsidised rent may be paid to public bodies like Municipality, Panchayat, Corporation and the Tamil Nadu Slum Clearance Board. The rent-free category could either be lands let out by voluntary agencies and philanthropic groups or acquired during the implementation phase of Tamil Nadu Urban Development Project and SIDA. But land with buildings may be acquired through payment of rent or a long-term lease from private parties mentioned above. As land value appreciates with time, it is important to collect details on the extent of land, the year of acquisition, details on rent or lease amount paid etc. to calculate costs. However, this sort of an analysis is too massive to be contemplated in any cost framework due to the inaccessibility of Government land records. An attempt to estimate costs could be done by contacting the concerned Departments.

## 2.2 Buildings

Buildings normally refer to a structure built in a proportionate land area and may be built with different type designs to suit the budget of the owner. A building as an immovable asset, may be a house, an office or portions of an office built during varying time periods. As value of buildings depreciate over time, the age of the building and its ownership has to be given importance in a cost framework. Valuation of public and private buildings, new and old buildings may differ due to the degree of maintenance it receives from the owners. The type design of the building may also influence the valuation process.

Normally, the Public Works Department has the official responsibility to estimate the value of public buildings based on the age of the building. They also fix guidelines based on these estimates to calculate depreciation (*Mr. S. Pandian, R & R Co-ordinator, TIDCO*). The value is assessed based on the structural extent of the building and it does not include the value of land (*Mr. G. Gajapathy, Superintending Engineer, Buildings Department, Corporation of Chennai*). The following pricing methods could be adopted to estimate the value:

- Current purchase price
- Fair market value (as defined)
- Certified engineer's valuation
- Estimates of licensed land surveyors

In this framework, buildings refer to the occupied area of a building by the Directorate of Social Welfare, other Department owned/rented/leased buildings occupied by ICDS District

Program Offices, Child Development Project Offices and Child Care Centres in Tamil Nadu. Various Government Departments at different time periods built these buildings (with varying type designs). Therefore, it is assumed that there would be variations in the valuation estimate and it is essential to gather information on actual building value, its present market value and the amount of depreciation to carry out a cost analysis. As cost of buildings depreciate over time, it is important to identify the gaps between the number of sanctioned and actually constructed buildings in a program. Was there a demand-based construction of buildings? What was and is the proportion of expenditure allocated and incurred in the overall budget of a program? Is there a provision for repair? are some of the issues that could be probed further. The following sample data from ICDS will provide insights on the type of data required to be collected regarding building costs:

**Table 4**  
**Sample Data on Buildings Constructed for ICDS**

*Construction undertaken by : Corporation of Chennai*

Location	Nature of Location	No. of Child Care Centres	Year of Construction	Cost of one building	Extent (area)
All over Chennai	Urban	300	1980s	30,000	750 sq.ft.
Srinivasapuram II Street Division 13 Zone I	Urban	1	March – May 2000	3 lakhs	627sq. ft.
Thoppaivinayagar Koil Street Division 3 Zone I	Urban	1	March – May 2000	3 lakhs	627sq. ft.
Nethaji Nagar Division 3 Zone I	Urban	2	March – May 2000	3 lakhs	627sq. ft.

*Courtesy: Mr. G. Gajapathy, Superintending Engineer, Buildings Department, Corporation of Chennai*

In the above table, it is interesting to note that the cost of ICDS buildings has increased ten times between the years 1980 to 2000. It is not known how much is due to changed type design and how much due to escalation of costs of building materials. Though the table on land ownership highlights that 630 centres were constructed on land belonging to the Corporation of Chennai, it is not clear as to why there were only 300 buildings reported in the above table. It is also not known as to why construction of centres took place in several phases. Is it because many Departments were involved in co-ordination? Is it due to limited funds? Is it due to lack of proper documentation? What about data on newly constructed buildings and with whom will it be available? These are questions that remain unanswered.

In a program like ICDS, it was observed that the Tamil Nadu Slum Clearance Board, Department of Municipal Administration, Department of Town Panchayats and Department

- Companies Act: Schedule XIV of the Act specifies the rates of depreciation (Mehta, 2000) and it is mandatory for all private and public limited companies to follow these rates.
- Single Rate: It is a rate specified for each and every capital asset based on the life of the asset. This is applicable where there is smaller number of assets with very high value, and which may produce a specific product or render a specific service eg. scanner in a hospital.
- Composite Rate: The rate is calculated by dividing the aggregate of individual depreciation charges in whatever manner calculated of all the assets concerned in any one period by the aggregate of the cost of the assets.
- Accelerated Rate: It consists of a usual depreciation rate augmented to provide additional depreciation sustained by the asset depreciated. For example, usual depreciation rates are provided for machinery when it works for a single shift. When the same machine is used for a double shift or a triple shift the usual depreciation should be increased by two times or three times respectively.
- Retarded Rate: It is converse of the above definition where the usual depreciation rates are reduced according to the reduced usage of the asset.

It is recommended to calculate these rates using Income Tax and Companies Act rates with either the Straight Line or the Written Down Value Methods. Here is a sample along with replacement rates:

Items	Assumed Value (in Rs.)	WDV	Depreciation	WDV
		Depreciation Rate*	Value (in Rs.)	(in Rs.)
Typewriter	10,000	25%	2,500	7,500
Jeep	3,50,000	25%	87,500	2,62,500
Storage Furniture	10,000	10%	1,000	9,000
Photocopier	25,000	25%	6,250	18,750
Computer	40,000	60%	24,000	16,000
OHP	10,000	25%	2,500	7,500
Total Depreciation	4,45,000		1,23,750	3,21,250

Key: WDV – Written Down Value

\* Rates specified in Income Tax Rules for the assessment year 1988-89 and onwards

*Sum of Digits Method:* This method provides for depreciation by means of differing periodic rates computed according to the following formula. If  $n$  be the estimated life of the asset, the rate of each period is calculated as a fraction in which the denominator is always the sum of the series,  $1,2,3... n$  and the numerator of the first period is  $n$  and the second period is  $n-1$  and so on.

*Production Unit Method:* A fixed rate of depreciation per unit of production is obtained by dividing the value of asset ( $V$ ) less its salvage value ( $S$ ) by the estimated units to be produced during its life period. This method is mostly used for plant and machinery directly engaged in production and for wasting assets like quarries, mines etc., Here when the asset is idle and does not produce anything, no depreciation is charged.

*Production Hour Method:* Similar to the above, instead of estimated production units, the estimated number of hours the asset is likely to be run is taken. This method is used in cases where the production is not uniform or identical physical units.

*Joint Rate Method:* In this method, the time and usage factors are combined together and a portion of it is calculated on time basis and the balance is calculated on usage basis i.e.  $m$  hours etc.

*Repair Provision method:* This method provides for periodic changes to costs of the aggregate of depreciation and maintenance costs.

*Annuity Method:* This is based on the assumption that the capital sunk in the purchase of the asset would have earned interest if otherwise invested.

*Revaluation method:* This method involves periodical valuation of an asset and is suitable for such assets such as tools, patents, livestock etc.

### ***Rates of Depreciation***

The rates of depreciation are specified from time to time under the Income Tax Rules which are amended and notified every year and from Schedule XIV of the Companies Act, 1956. The following are the different modes of calculating the rate of depreciation in accordance to the method of depreciation used:

- Income Tax: The Income Tax Department has specified depreciation rates to be charged for various types of assets (Mehta, 2000).



nature of costs that cover day-to-day expenditure incurred on policy formulation, program designing, implementation, monitoring, supervision and evaluation. In the context of this framework, they are incurred at higher levels of the organisational hierarchy in ICDS – Directorate of Social Welfare, District Program Offices and Child Development Project Offices in Tamil Nadu. Some of these costs incurred in ICDS are on:

- ▶ Depreciation
- ▶ Repairs and Maintenance – Buildings, Vehicles, Office Equipment and Others
- ▶ Rent
- ▶ Office Expenses
- ▶ Communication
- ▶ Travel Costs

### **3A1. Depreciation**

Depreciation can be defined as the diminution in the value of a fixed asset due to use and/or lapse of time. Depreciation of an asset takes place due to fair wear and tear on account of two factors, i.e., usage and lapse of time, both of which may operate at the same time. The principle of usage recognizes the fact that the more the use to which the asset is put to, the larger will be the depreciation.

A fixed asset has a life span during which it renders service of the nature it is intended to give and on the expiry of which, the asset has either no value or has only a small value as scrap. The life of an asset is reduced by extensive usage but may be enhanced by efficient maintenance. During the period of life of the asset, its value is gradually reduced till it reaches nil or a very small figure. This reduction in value is called depreciation.

There are various methods available to calculate depreciation. They are:

*Straight Line Method (SLM)*: It provides for depreciation by means of equal periodic changes over the assumed life of an asset. For example, if V is the value of procurement of the asset and n is the estimated life in years and s is the salvage value then annual depreciation is  $(v-s)/n$ . This method is applicable to all types of assets.

*Reducing Balance or Diminishing Value Method (Written Down Value (WDV))*: In this method depreciation is provided by means of periodic changes calculated at a constant proportion of the balance of the value of asset, after deducting the amounts previously provided. This is the only method accepted by the Income Tax Authorities.

Therefore, all office equipment needs to be listed out in the above format to calculate replacement costs and depreciation.

## 2.5 Furniture and Fixtures

Furniture and fixtures in whatever condition they are have to be included in the framework. For example, the below format can be used to take a stock list of the existing furniture and then calculate the value considering its life term.

**Figure 6**  
**Costing Format for Furniture and Fixtures**

Date of Purchase
Type of Furniture (Wood/Steel) (with nos. in each category)
<ul style="list-style-type: none"> <li>▶ Tables</li> <li>▶ Chairs</li> <li>▶ Stools</li> <li>▶ Storage Shelves</li> <li>▶ Storage Box</li> <li>▶ Notice Board and other items</li> </ul>
Purchase Value
Market Value
Depreciation
Replacement Costs

Any Department/Organisation maintains a stock register with elaborate details on the date of purchase, type and number of assets. This will help in calculating the costs of the movable and immovable assets procured during the life-time of the organisation.

## 3. Revenue Costs

### 3A. Administrative Costs

Administrative costs are operating costs that are incurred to provide facilities and organization that are kept in readiness to implement a program without regard to the actual reach of a program. They remain relatively constant until changed by managerial decision. Within general limits they do not vary with the volume of a program. These are usually in the

Rates of depreciation may also be obtained from standard sources like the Tamil Nadu Motor Vehicles Maintenance Department. But if replacement costs have to be calculated, the vehicles should be revalued at the current market price based on the indexed method of costing. The Income Tax Act provides a cost inflation index (Appendix 2), intended to be used to arrive at the current year's value. The value is calculated using the gross replacement costs, or cost that would have to be incurred to obtain and replace at the date of valuation a substantially identical vehicle in new condition. Later, the gross replacement cost arrived at should be written down with reference to the number of years that the vehicle has served. For example, a jeep has a life term of 10 years and its original value was around Rs. 80,000. The net replacement cost for a 5 year old jeep will be Rs. 40,000/- (Rs. 80,000 – Rs. 40,000 by calculating depreciation at Rs. 8,000 each year for 5 years). The gross replacement cost can be collected from the following sources:

- The official price list or the catalogue of vehicle suppliers
- Estimates provided by the institution/company based on expert opinion
- Index compiled by the company/institution from its own purchasing experience
- Authorised price indices prepared by external agencies like the Department of Industry, Income Tax Department etc.

#### 2.4 Office Equipment

Items like computers, typewriters, photocopiers, roneo printers, etc. are movable assets that need to be included in a framework. Methods of costing them are by using

- Purchase price
- Replacement cost i.e. price at which it can be bought today - current market price

For example, a typewriter in an ICDS Child Development Project Office would have completed its life term but may still be used with frequent repairs and maintenance:

**Figure 5**  
**Calculating Replacement Costs of a Typewriter – an example**

Date of Purchase	1985
Item Description	Typewriter Model - Remington
Purchase Value	Rs. 3,000
Market Value (1998)	Rs. 6,000
Depreciation	0 (as the item's life term is more than 5 years)
Replacement Costs	Rs. 6,000

of Rural Development are the major construction promoters. Land acquisition costs, replacement and rehabilitation costs, area development and design costs are borne by them as part of their huge projects. Though a small amount is contributed in terms of time, personnel and financial resources towards construction of ICDS Child Care Centres as part of larger development projects, the magnitude of the work remains unknown.

However, it would be difficult to monetise building value and depreciation owing to practical difficulties in type design compilation from different sources. Personal interviews with the Tamil Nadu Slum Clearance Board engineers and town planners further provided some interesting insights on buildings. According to the Slum Improvement Scheme in Madras Metropolitan Authority under the Tamil Nadu Urban Development Project Design Brief, construction of on and off-site infrastructure, provision of tenure and community facilities were envisaged on public and private lands in 10 cities of Tamil Nadu. Community facilities included a Child Care Centre. Further investigation revealed that a few of the 267 tenements and centres maintained by the Tamil Nadu Slum Clearance Board were in fact buildings constructed and handed over under the Madras Urban Development Project, then managed by the Madras Metropolitan Development Authority in the 1980s. Likewise, many other Departments would have been involved in this process. Another practical difficulty in public offices would be the inaccessibility of records due to planned periodical destruction.

### 2.3 Vehicles

Any vehicle whether it is a bicycle, scooter or a jeep purchased or transferred from other Departments need to be monetised under capital items. Two methods namely

- ▶ Purchase Price and
- ▶ Replacement cost

can be used to work out the total costs. The following format can provide vital data for a cost analysis:

**Figure 4**  
**Costing Vehicles – A Format**

No. of Vehicles (eg. ICDS)	163
Vehicle Type	Mahindra Jeep
Date of Purchase	1985 onwards
Purchase Value	Not known
Depreciation	0
Rate of Depreciation	If the vehicle has completed its life span of 8 years, then depreciation will be zero
Nos. requiring replacement	107
Replacement Costs (on the basis of the purchase value at the prevailing market rates)	Rs. 6,00,000 (1998 value) per vehicle
Value of 107 jeeps	6,42,00,000

Maintenance in the context of this framework refers to repair and other related activities like whitewashing the building, replacing certain damaged portions, etc. This is yet another area where costs are involved. Allocation of costs for maintenance of buildings is essential for any program. Often, it is the responsibility of the building owner to undertake the task of maintenance. But in cases where several Government Departments use the building or claim to possess ownership of the building, it is difficult to apportion the maintenance costs under the program using it. Therefore, estimating maintenance costs of buildings have the same practical difficulties as those of valuing buildings.

In ICDS, Child Care Centres were constructed at varying time periods and therefore, repair and maintenance would be deemed necessary for proper program implementation. If details of maintenance costs are not available, then there are other ways and means to estimate it. A hypothetical example of how to go about collecting details is given below:

**Figure 7**  
**Estimating Costs of Repair and Maintenance**

Location	Marupalli, Thalli Project, Dharmapuri District
Nature of Location	Rural – Hill Area
Building Ownership/Responsibility	Department of Rural Development
Type Design	Not Known
Nature of Repair/Maintenance	Broken walls
Estimated Cost of Repair/Maintenance	Rs. 1000
Actual Costs incurred	Rs. 1200

If data on this aspect needs to be collected for ICDS, reference may be made to G.O. No. 145 dated 4.8.1999 of the Department of Social Welfare and Noon Meal Program. It states "henceforth repair work of Noon Meal and Child Care Centres would be undertaken by the land owning authorities like Panchayats, Corporations and Municipalities. All necessary Government Orders would be issued to this effect by the concerned authorities of Department of Social Welfare and Noon Meal Program, Department of Rural Development, Department of Municipal Administration, Tamil Nadu Integrated Nutrition Project, and the Public Works Department". In this situation, it becomes necessary to co-ordinate with the different Departments entrusted with the responsibility of repair and maintenance. As many ICDS Child Care Centres are quite old, their costs would have depreciated. As there are no special methods available to capture such costs, it can only be assumed that preventive maintenance is done. Though expenditure will increase in such cases, it should always be assumed that replacement costs would have to be incurred after a period of ten years. Therefore, any program budget should include maintenance costs.

In any cost analysis, two methods of depreciation are widely used - the Straight Line Method (SLM) and the Written Down Value (WDV) method. SLM is used for normal assets and WDV is used for assets having a short life-span. Normally, one of these methods are applied in combination with the rates given either in Income Tax Rules or the Companies Act. For example, in the above table, the depreciation method selected is the WDV method and the rates in percentages are adopted from the Income Tax Rules. But SLM is mostly used for the following reasons:

- It is simple to calculate
- The original cost will be available in the books of account
- The depreciation will be lower in the earlier years which will augur well as the maintenance cost of any capital asset in the initial years will be lesser compared to the later years. In the case of WDV, a higher depreciation will be charged in the initial years.

Therefore, SLM and the Income Tax rates have been used in this framework and the sample analysis.

### **3A2. Repairs and Maintenance**

Repairs and maintenance are an essential part of any program/Department since it involves both movable and immovable assets which are highly costly and complex in nature. The purpose of repairs and maintenance is manifold - firstly, the cost is incurred to keep the assets in a perfect working condition; secondly, to reduce interruption in program implementation due to breakdown, damage or dilapidation and thirdly to use the assets to maximum capacity. There are two types of maintenance costs - preventive maintenance and corrective maintenance.

#### ***Buildings***

Preventive maintenance includes periodical check up and inspection of the building. It also includes provision for repairs and services for their continued efficiency even while the buildings are being utilised. It is a routine affair involving a continuous process carried out according to a schedule. It anticipates damage and takes timely measures to repair them. This is carried out during the lean period of usage of the building i.e. when there are continuous holidays. The check up will be done without hindrance to the existing schedule of program implementation.

Corrective maintenance occurs when the building reaches a stage of dilapidation. When action is taken to set right a building after it has broken down, it is corrective maintenance whereas preventive maintenance is done to ensure that the building does not get broken down. Preventive maintenance is useful in prolonging the life of a building and also to get the optimum use from it apart from savings in time, energy and money.

### **Vehicles, Office Equipments and others**

Vehicles like jeeps and office equipments like computers, typewriters, photocopiers, roneo printers etc. used in a program will incur costs in terms of repairs and maintenance that are recurring in nature. These will have to be reported in a program with details of costs incurred on each and every item.

### **3A3. Rent**

In the popular sense, the term 'rent' is applied to the monetary payment made by a tenant for use of land and buildings. If land and buildings are not in sole ownership of the Department implementing a particular program, it becomes necessary to calculate the recurring expenditure incurred in terms of rent paid to occupy buildings for purposes of implementing the program. Payment of rent becomes unavoidable in this context and the value might differ in terms of the extent, type and location of the building in possession. Therefore, rental value of buildings has to be incorporated in any cost framework. Rent charged by the Government Departments may vary from the market value in urban and rural locations. Hence this aspect could be calculated according to any of the following procedures:

- Standard rent as per the rules laid down under the Rent Control Act
- Fair market value or rent which a similar building fetches in the same locality
- Municipal valuation which is fixed by the concerned Municipal authorities
- Actual rent

To give an example of field realities, let us take the example of an ICDS Child Care Centre in Chennai:

**Figure 8**  
**Format for Calculating Rental Cost**

Location	Chennai
Nature of Location	Urban
Ownership	Tamil Nadu Slum Clearance Board
Type of Building	Tenement in a four storeyed construction
Age of the Building	5 years
No. of Rooms/Whether Toilet Attached?	3 rooms with toilet
Rental Value assigned by the Government Dept	Rs. 150 p.m.
Market Value	Rs. 1,000
Real Rental Cost = Rental Value + Market Value + Overheads	Rs. 1,500 inclusive of electricity and water charges

Difference between the rental value assigned by the Government Department and the market value would give the subsidy value. It is always feasible to get the guidelines from the Rent Control Department at the respective Corporation and Municipalities in urban areas and the Panchayat and Block Development Offices in rural areas (Information from the Tamil Nadu Slum Clearance Board).

#### **3A4. Office Expenses**

These are incurred in ICDS at the level of the Directorate of Social Welfare, District Program Offices and Child Development Project Offices for stationery, printing, general upkeep of the office premises, etc. They are mostly recurring costs reported in the statement of accounts maintained at all the levels.

#### **3A5. Communication**

Costs incurred on telephones, postage and courier charges are included under this category.

#### **3A6. Travel Costs**

This can further be classified as costs incurred for transport and loading, for conveyance and for POL (Petrol, Oil, Lubricants).

**Transport and Loading Costs:** Any program providing services to improve the quality of life of user communities, tends to incur transportation costs on delivery of essential goods and services. In ICDS, these costs are incurred for transportation of food items (Supplementary Feeding, popularly known as weaning food) from the Industrial Co-operative Societies to the respective Child Development Project Offices and Child Care Centres. It is not known as to whether a fixed amount is allocated for quantities of food items transported. But these costs are usually reported in the yearly financial statements.

**Conveyance:** It includes costs incurred by regular and temporary categories of personnel in ICDS. Regular categories are given tour travelling allowances, fixed travelling allowance, local conveyances, fuel expenses for supervision and monitoring as well as vehicle repairs



and maintenance. Temporary category of personnel i.e the Child Care Workers are re-imbursed local conveyances at the rate of Rs. 20 per month for visit to Child Development Project Offices for monthly meetings, training programs etc. It is not known whether costs are provided for transportation of Noon Meals.

**Petrol, Oil and Lubricants:** For any program administration, petrol, oil and other lubricants are essential items to operate vehicles. The yearly allotment to Government vehicles may vary from one Department to another. Government Orders issued from time to time will definitely provide relevant information for a detailed cost analysis. Moreover, price fluctuations of these items and the respective price changes at the Government Petrol Stations need to be taken into account as it is observed that fuel is supplied at subsidised rates for these vehicles. But the costs on these items can be calculated on the basis of the number of vehicles being operated in rural, urban and hilly areas.

### **3A7. Rates and Taxes**

These are costs incurred on taxes like Corporation tax, water tax, etc. paid to the local authorities.

### **3A8. Electricity**

Normally, there are two types of rates charged by the Tamil Nadu Electricity Board—domestic and commercial. When electricity is used for residential purposes, domestic rates will be charged. For all other type of establishments, commercial rates are applicable. In ICDS, as most of the Child Care Centres do not have any electricity, the cost incurred under this head would be mainly for administrative purposes at the Directorate of Social Welfare, District Program Offices and the Child Development Project Offices. It is not known as to whether subsidised rates are being offered to Government Departments.

### **3A9. Advertisement and Publicity**

It refers to costs reported on hoardings, banners, IEC (Information, Education and Communication materials) for awareness campaigns including media publicity.

### **3A10. Personnel Costs**

The major share of costs in any program is the remuneration paid to the personnel who run the service, that is the human resources. Human resources which can also be termed as human capital in a program, are not managed the same way as tangible assets, both because it is about people, not things, and because it is treated differently in financial statements. Human resources are the key to implementing a program and without adequate personnel it is impossible to run a program effectively. Hence the major component of any program budget is allocated to human resources in the form of pay and allowances. Payments may differ according to the category of personnel employed for the purpose of implementing the program. The pay structures are often determined by the nature of employment, expertise, experience and qualifications. And these pay structures may vary in the public and private sector. Further, the skills and experience gained by personnel over a period of time may not be reflected in these pay structures. As this framework deals with the public sector, it is essential to understand the background for pay fixation.

In the public sector, it is quite customary to adhere to the scales fixed by the Central Pay Commission from time to time based on the cost of living indices. The recommendations of the Pay Commission are in turn implemented by the respective State Governments through revision of pay structures and timely allowances for different categories/grades of personnel employed in Government service. Detailed estimates of such categories of personnel employed for program implementation is hence necessary in any cost framework. There is expected to be an hierarchy of personnel involved in performing specified tasks, and their job description and experience have an influence on costs and hence form an important aspect of the framework. Personnel may be either directly or indirectly involved in program implementation. However, the time they spend on a specific program needs to be documented if large scale cost studies are planned to be undertaken. This sort of data assumes more importance in studies like cost-effectiveness and cost-benefits. Similarly, data on number of personnel sanctioned in each category and positions lying vacant also need to be compiled to analyse program performance.

#### ***Composition of Program Personnel (ICDS)***

In ICDS for example, there are two categories of personnel – regular and temporary/informal/undefined work status. The table below lists the hierarchical organisational structure and the designated categories of personnel at various levels:

**Table 6**  
**Designated Categories of Regular and Temporary Personnel in ICDS**

<b>Levels</b>	<b>Category of Personnel</b>	<b>Assumed Numbers*</b>
<b>A. Regular</b> State Directorate	Commissioner	1
	Additional Director (Health)	1
	Additional Director (ICDS)	1
	Additional Director (Administration)	1
	Joint Director (ICDS)	1
	State Program Officer	1
State Directorate (Contd.)	Mobile Team Instructors	5
	Accounts Officer	No Post
	Accounts Assistant	2
	Superintendent	2
	Office Assistant	30
	Driver	5
	Watchman	2
	<i>Sub Total</i>	52
District Program Office	Program Officer	26
	Statistical Inspector	26
	Mobile Team Instructress	78 (3 Per office)
	Superintendent	26
	Office Assistant	78 (3 per office)
	Typist	26
	Watchman	26
	Driver	26
	<i>Sub Total</i>	312
Child Development Project Office	Child Development Project Officer	113
	Additional Child Development Project Officer	No information
	Medical Officers	44 (one each in urban projects)
	Superintendent	113
	Auxiliary Nurse Midwife	176 (4 persons in urban projects)
	Supervisors	496
	Office Assistant	113
	Typist	113
	Watchman	113
	Driver	157 (based on 2 persons in urban and 1 in rural projects)
	<i>Sub Total</i>	1438
	<b>Total</b>	<b>1,802</b>

**B. Temporary/Informal\*\***

Child Care Centre	Anganwadi Workers (I and II)	13,314
	Helper I	10,110
	Helper II	3,836
	<b>Total</b>	<b>27,260</b>

\* assumed numbers may differ between number of posts sanctioned and those which are filled

\*\* numbers as on August 2000

This table format will help in collecting accurate numbers of personnel employed in a program like ICDS. Details of their grades and scale of pay and allowances can be gathered to calculate costs incurred by regular and temporary personnel at various levels of the organisational hierarchy. From the above table, it is evident that the personnel known as Child Care Workers employed at the Child Care Centres placed at the lowest rung of the organisational ladder form a majority of the work force in ICDS as a whole. However, their work status and their remuneration is quite different in nature from that of the regular personnel, besides being meagre in amount and does not carry along with it the benefits enjoyed by personnel in regular categories. Let us look at these two categories in turn:

***Pay and Allowances***

Personnel formally employed in the public sector enjoy certain privileges in the form of allowances that may vary from one category to another. As there are different categories of personnel employed in Government service, their pay and allowances depend on the grade they are placed in and on pay scales fixed by the Government from time to time. These personnel enjoy a life-time employment with fixed pay scales and allowances permissible on the basis of their seniority, experience and promotion during their service tenure.

As an example, we may take the Child Development Project Officers who are employed in the regular category of personnel in ICDS and are eligible to receive pay and allowances according to the scales fixed for different grades by the Government. The following aspects need to be collected in detail to calculate total costs spent towards their pay and allowances:

**Figure 9**  
**Format for Calculating Cost of Regular Personnel**

Category/Grade under which employed	Child Development Project Officers (Grade II)
Scale of pay	Rs. 5,000 and above but below Rs. 10,000*
Years of Service	
Pay and allowances received	Basic Pay Medical City Compensation Interim Relief House Rent Dearness Allowance Leave Travel Concession Festival Advance Transfer-related Travel Winter Allowance
Total pay received	Rs. Ps.

\* Detailed scale of pay is not available

Other regular categories would include administrative and program personnel whose designations are mentioned in Table 7. Costs incurred towards pay and allowances of regular categories of personnel may be obtained from the respective administrative sections of the concerned Department.

For the Child Care Workers who are termed as honorary workers and whose services do not fall under the stipulated grades of Government employees, the benefits and allowances provided could be taken up in a similar format as below:

**Figure 10**  
**Format for Calculating Cost of Temporary Personnel**

Category/Grade under which employed	Child Care Workers (Category of Temporary Work)	
Scale of pay	None	
Months of service required to obtain benefits	148 months	
Leave Benefits		
<i>Casual Leave</i>	12 days in a year	
<i>Maternity Leave</i>	4 months	
Honorarium and other allowances received (in Rs.)		
	AWW	Helpers
<i>Honorarium (per month)</i>	1,123	600
<i>Compulsory Savings (per month)</i>	20	20
<i>Retirement Benefit</i>	5,000	5,000
<i>Accident Benefit</i>	1,00,000	1,00,000
<i>Pongal Bonus</i>	825	825

Source: Directorate of Social Welfare

From the above table, it is clear that the Child Care Workers enjoy only a meagre "honorarium" and have very limited benefits unlike those of the regular category of personnel. If a normative estimate is worked out using criteria such as prescribed Minimum Wages, the cost picture may be quite different and much higher. This would indicate the extent to which costs are artificially reduced. Hence both values are important to note in the framework.

### **3B. Program Costs**

Programs are systematically designed to implement service components, also termed as activities that could achieve the objectives, usually involving utilisation of resources, both in cash and in kind. Program cost is defined as the value of each resource that is consumed when the program implements a service component (Yates, 1996). The cost or value of resources in a program may have several determinants like valuation strategies, interest group perspectives, levels of program specificity, flexibility of resources, time and duration of assessment and focus of resources. Of course, other major determinants are the actual types and values of the resources used in a program. Program cost is not a single entity as it is the sum of the many resources pooled in from various stakeholders to implement the objectives of a program and program costs are mostly recurring in nature. There are several costing methods to derive program costs in totality. For example, for material consumed, the following methods could be used:

- Actual Expenditure
- Prescribed Quantity x Rate Per Unit x Number of Users
- Prescribed Quantity x Actual Rate x Number of Users
- Actual Quantity x Actual Rate x Number of users
- Actual Quantity x Current Market Rate x Number of Users

Depending on the type of cost data collected, any of the above methods could be adopted. Let us now look at the program components and the nuances involved in cost data of ICDS.

#### **3B1. Supplementary Nutrition**

In order to address the holistic development of young children and eliminate the risks of malnutrition, this particular component was introduced in ICDS which can further be split into two – Supplementary Feeding and Noon Meals. These sub-components cater to different user categories like children in the age group of six months to 2 years (Supplementary

Feeding) and from 2 years to 6 years, pregnant and lactating mothers and old age pensioners (Noon Meals). To ascertain costs for this component in ICDS, it is necessary to understand the procedures involved in terms of the prescribed quota for Supplementary Feeding and Noon Meals for each user and to keep track of the changes every year.

**a. Supplementary Feeding**

This sub-component, also termed Weaning Food in the ICDS Program, is provided to children in the age group of 6 months to 2 years and to pregnant and lactating mothers. Every 1000 grams (1 Kilo Gram) of Supplementary Feeding can be split as follows: 250 grams of wheat, 215 grams of ragi, 110 grams of fried gram and 325 grams of jaggery. Other details such as the source of supply, i.e the Industrial Co-operative Societies and the cost per kilogram of Rs. 11.30 during the year 1998-99 have to be included.

Children, based on their nutrition status, are further categorised as seen in the below table and this needs to be taken into consideration for a cost analysis of ICDS. Methods that can be used for cost analysis are:

**Figure 11**  
**Supplementary Feeding Quota**

User Community	Quantity
Normal Grade I and II Children	80 Grams Per Day
Grade III and IV Children	160 Grams Per Day
Pregnant and Lactating Mothers (ANC and PNC)	120 Grams Per Day (Dry Ration)

Two methods can be used to arrive at costs of Supplementary Feeding as follows:

- Reported expenditure statements with details of total expenditure incurred at Centres available at the Directorate of Social Welfare and Child Development Project Offices.
- Another alternative described below, which can be used if such statements are not available, is to calculate the costs using the format below:

**Figure 12**  
**Month-wise Consumption of Food by Children (6 Months – 2 Years)**  
**by Grades of Malnutrition**

Month/Year	No. of Children	
	6 Months – 2 years	
	Grade I & II	Grade III & IV
April 1998	1261	1148
May	1315	1240
June	1360	1163
July	1380	1278
August	1356	1304
September	1683	1550
October	1428	1351
November	1482	1846
December	1468	1379
January 999	1396	1303
February	1475	1484
March	1386	1378
<i>Average</i>	1416	1369

The above data can be used further to derive the total cost of Supplementary Feeding using the procedures:

**Costing procedure**

- A. No. of children who attended the centre during the year =
  - A1 - Sum of Grade I and II children attended each month/12
  - A2 - Sum of Grade III and IV children attended each month/12
- B. Total quantity of Supplementary Feeding consumed by Grade I and II children per year = in Kgs.
- C. Total quantity of Supplementary Feeding consumed by Grade III and IV children per year = in Kgs.
- D. Total cost of Supplementary Feeding consumed by Grade I and II children per year = B X Rs.11.30
- E. Total cost of Supplementary Feeding consumed by Grade III and IV children per year = C X Rs.11.30



#### F. Unit Costs

Cost per child /year (Grade I and II)	=	D/ A1
Cost per child /year (Grade III and IV)	=	E/ A2
Cost per child /day (Grade I and II)	=	D/A 1/300
Cost per child /day (Grade III and IV)	=	E/A2 /300

It has also to be taken into consideration whether this sub-component is offered on the basis of needs spelt out by the user categories. If a comparison is done of the actual cost incurred by ICDS with that of standards recommended by nutrition specialists to combat malnutrition, normative costs would be much higher. However, it is not known whether the supply of this component is continuously ensured in adequate quantities and whether the targeted intervention to reduce malnutrition is appropriate. Only a thorough analysis including all such parameters can bring an understanding to the overall impact and reach of this sub-component.

#### *b. Noon Meals*

Noon Meals in ICDS refer to an edible meal cooked with rice, gram, oil, salt, vegetables, condiments and eggs and offered free of cost to children attending preschool. The cost also includes non-edible materials like firewood, kerosene and vessels used in the preparation of the meal. The Noon Meal sub-component also caters to old age pensioners in a few areas and is a rather complicated item in cost analysis of ICDS. This is because of the administrative nature of procurement and allotment done through different sources like the Tamil Nadu Civil Supplies Corporation and private contractors. There is also some hidden subsidy covering costs of transportation and loading done by employees of the Tamil Nadu Civil Supplies Corporation. Excluding subsidy would mean that total costs are not reported. Therefore, it becomes imperative in a cost analysis that all reported and unreported costs in ICDS along with Government subsidies paid directly to the concerned Departments are included while calculating costs.

Monitoring and supervision for quality control is also a task undertaken to supply eggs under this sub-component. The time and salaries of personnel from the Department of Animal Husbandry is spent on this item. It becomes very difficult therefore to bring them under the total costs of ICDS.

There are different methods involved in calculating costs for these different items:

- Actual reported expenditure
- Expenditure incurred along with hidden costs in the form of indirect subsidies, transport and handling charges, procurement costs in the case of rice, gram, oil and salt.
- Estimates based on the quantity of edible items allotted in ICDS, the number of noon meal users and the prevalent price quoted by the Tamil Nadu Civil Supplies Corporation.

It is not possible to study the actual reported expenditure because of the practical administrative difficulty in segregating costs from the overall expenditure report of PTNMP as it includes children attending primary schools in Tamil Nadu. The PTNMP procures, offers and bears the entire cost for the ICDS noon meals, also due to the lesser number of users in ICDS. Therefore, actual expenditure heads cannot be found in ICDS if an analysis is intended. If the second method is adopted, then efforts have to be taken to collect the amount of subsidy and the transport and handling charges involved from the Department of Social Welfare and the Tamil Nadu Civil Supplies Corporation. It must be noted here that all records may not be available at one particular Department.

The third method was found to be more feasible to segregate expenditure and estimate costs. The PTNMP's total expenditure can then be obtained and split for ICDS alone by comparing the number of users in both programs. The following format will cast more insights into the procedure:

**Figure 13**  
**Noon Meal Quota for a Child (2- 6 year old) in ICDS (1998-99)**

Items	Quantity	Prescribed Cost (in Rs)
Rice	80 gms	1.05*
Gram	10 gms	
Oil	2 gms	
Vegetables, Firewood and Condiments	2 gms	0.18
Eggs	One egg per week	1.20
Total Cost		2.43

\* is total cost for rice, gram and oil for a child

The prescribed cost of rice, gram, oil and vegetables are incurred every day in an ICDS Child Care Centre whereas the cost of eggs is incurred weekly once. On the basis of the above table, reported expenditure in ICDS can be cross-checked. Further break-up of prescribed costs for vegetables are given below :

**Figure 14**  
**Allocation for Vegetables, Firewood and Condiments (1998-99)**

Items	Prescribed Cost (in Ps.)
Vegetables	0.090 Paise
Condiments and Salt	0.035 Paise
Firewood	0.055 Paise
Total	0.18 Paise

Source: G.O. No. 89 Department of Social Welfare and Noon Meal program

The above table gives additional details of how 0.18 paise is allotted on vegetables, firewood and condiments per child per day in an ICDS Child Care Centre. Though it is not clear as to when this prescribed cost was recommended in ICDS, it is common understanding that market prices escalate over time and it is not possible to offer vegetables and condiments at underestimated costs prescribed by ICDS. Many sources report on ad hoc revisions of prescribed costs from time to time and the costs on the above item after March 1999 was reported to be 0.23 paise. Is the price and cost of living index taken into consideration during such ad hoc revisions? Are there serious concerns to achieve the objective of reducing malnutrition? are issues arising out of the above table. But the difference between the prescribed cost and the market price as in the below table needs to be taken into consideration by policy makers:

**Table 7**  
**Cost of Supplementary Nutrition (1998-99)**

Items	Quantity	Prescribed Cost (Rs. Ps.)	Market Price (Rs. Ps.)
Rice (Boiled Common Variety)*	1 Kilogram	7.51	11.00
Gram*	1 Kilogram	18.81	28.00
Oil*	1 Kilogram	39.37	45.00
Iodised Salt*	1 Kilogram	2.10	15.00
Egg***	1	1.20	1.25
Supplementary Feeding**	1 Kilogram	11.30	N.A.

Source: \* Tamil Nadu Civil Supplies Corporation Limited (G.O. No. 312, Department of Social Welfare and Noon Meal Program dated 10.12.1996)

\*\* Directorate of Social Welfare

\*\*\* Average value from tender quotes taken in different districts, Directorate of Social Welfare

The above table shows extreme price variations between the prescribed cost and the market price. The prescribed cost was obtained from the Tamil Nadu Civil Supplies Corporation Limited. Though it was reported that rice has a Government subsidy, more information needs to be collected on this aspect to ascertain total costs. It has to be noted here that eggs are obtained through tender quotes of private parties and have varied market rates in different districts of Tamil Nadu. The sanctioned tender quote copy can be obtained from the PTNMP for deriving the average cost of eggs.

The next step is to collect details on the yearly average of 2-5 year old children at the State, project and centre levels to estimate costs based on the third method of costing described in the previous paragraphs. This could be done as shown below:

**Table 8**  
**Noon Meal Users**

Centre/Project Name	Month/Year	Children (2 - 5 Years)		
		Male	Female	Total
	April 1998	3208	3007	6215
	May	3224	3088	6312
	June	3150	3013	6163
	July	3175	3022	6197
	August	3163	3081	6244
	September	3357	3293	6650
	October	3164	3017	6181
	November	3440	3134	6574
	December	3509	3036	6545
	January 1999	3197	2937	6134
	February	3390	3129	6519
	March	3184	3150	6334
	<i>Yearly average</i>			6339

### Costing Procedure

- A. No. of Preschool children (2-5 Years) = Sum of children who attended the centre each month/12
- B. Quantity consumed per year
- Rice =        in Kgs.  
 Gram =        in Kgs.  
 Oil =         in Kgs.  
 Salt =        in Kgs.  
 Eggs =        in Nos
- C. Value of Noon Meals = B x Rs. (Prescribed price of rice, gram, oil, salt and eggs per kg)
- D. Unit Costs
- Cost per child/year = C/A  
 Cost per child/day = C/A/365 (can be further cross-checked with the prescribed cost of Rs. 1.05 Paise per child per day for rice, gram, oil and salt)

Formats reporting expenditures based on the financial year April to March are helpful in calculating the yearly average number of children. These month-wise formats are maintained at the Child Care Centres which are in turn consolidated at the Child

Development Project Offices and submitted to the District Program Offices. The following is one such format:

**Figure 15**  
**Reported Costs at the Child Care Centres**

Months	Total Expenditure
April 1998 to March 1999	Firewood
	Vegetables
	Spices and Condiments
	Eggs
	Others

Though these formats provide details on the costs incurred on Noon Meal items, it has been observed that the prescribed allocation in terms of quantity as well as the cost is inadequate to the needs of the children. If this is the situation, then a normative estimate based on nutritional needs has to be formulated to estimate the gap between actual and normative costs. There are also other issues that need consideration in a cost analysis—are additional contributions of firewood, vegetables and other food items made by the community to ensure smooth functioning of the program? Are there hidden costs that need to be reported?

### **3B2. Nutrition and Health Education**

This component has the long term goal of capacity-building of women— especially in the age group of 15-45 years so that they can look after their own health, nutrition and development needs as well as that of their children and families. All women in this age group are expected to be reached by this component and it comprises basic health, nutrition and development information related to child care and development, infant feeding practices, utilisation of health services, family planning and environmental sanitation. Community education is imparted through counselling sessions, home visits and demonstrations.

Child Care Workers are also involved in immunisation sessions, mother-child protection days, growth monitoring days, small group meetings of mothers/Mahila Mandals, community and home visits, village contact drives and other women's groups meetings, local festivals/gatherings for awareness education (Department of Women and Child Development). Since details of prescribed costs on specified items/activities are not known, a separate format is reported here but an example is shown in the sample analysis.

### 3B3. Preschool Education

Materials in this context refer to resources, play materials and teaching-learning aids used in a program intervention to achieve the outlined objectives. These materials may be made locally, collected from local sources, purchased from external agencies and may sometimes be received as donations in kind. In this context, let us take the example of the preschool education component of ICDS. These were the materials actually found in a spot check at centre:

**Figure 16**  
**Examples of Play Materials in a Child Care Centre**

Classification	Items
<b>Locally made</b>	Kaleidoscope with broken bangles Soft toys from waste clothes Clay dolls Cardboard cuttings of animals, trees, buildings, toys, etc.
<b>Locally collected</b> <i>Naturally available</i>	Sea Shells Stones Tamarind seeds Coconut shells Palm leaves Egg shells
<i>Waste materials</i>	Cycle tyres Ropes Tin box Match box
Purchased/donated	Marbles Wooden toys Wooden blocks of different shapes Abacus

The above table gives a brief classification of the different materials found at a Child Care Centre. It is evident that most of the materials are not purchased by the ICDS program functionaries and therefore, is a difficult task to cost the item. One possible method is to cost the time taken by the ICDS functionaries to mobilise these items from different sources. But as these items were collected during different time periods, it would be difficult to monetise them. Moreover, has been reported that there is no allotted expenditure on this item in the program budget.

Another aspect that needs to be incorporated in the framework is a list of teaching-learning aids available at the Child Care Centres. Taking stock of the existing materials will help to monetise and suggest suitable measures of replacement. As these materials incur recurring costs, it is important to trace the frequency of replacement if any, when and how often? The annual budgetary provisions for replacement and the financial reports can throw important insights into the nature of program management practices on replacement. The below table will throw some insights on what is available at a Child Care Centre:

**Figure 17**  
**List of Teaching-Learning Aids (example from an ICDS Child Care Centre)**

<p><b>Charts</b></p> <p>Syllabus Alphabets Numbers Shapes Animals Colour Parts of the eye Flowers Taste (salty, sweet and sour) Nutritious diet Vitamins Immunisation</p>	<p><b>Booklets</b></p> <p>Syllabus Alphabets Stories Action songs Cartoons</p> <p><b>Other materials</b></p> <p>Reporting board Wooden alphabet stencils Glossy paper chips Scissors, paper and gum</p>
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Apart from the materials listed above, there should also be additional details like the date of purchase, number of materials available, its present condition, year of purchase/donation and consequent replacements, annual replacement costs etc. Most often these materials do not figure under the recurring expenditure heads of the program and therefore, it becomes necessary to document the source (Child Care Workers, Community, NGOs) and work out the costs at the prevailing market rates. As there are no prescribed costs for this component, a separate format is not offered here.

### **3B4. Health Check-ups**

This component of ICDS includes health care of children under six years of age, antenatal care of expectant mothers and postnatal care of nursing mothers. The various health services provided for children by Child Care Workers and staff of Primary Health Centres include regular health check-ups, recording of weight, immunization, management of malnutrition, treatment of diarrhoea, deworming and distribution of simple medicines etc. At the Child Care Centre, children, adolescent girls, pregnant women and nursing mothers are

examined at regular intervals by the Lady Health Visitor (LHV) and Auxiliary Nurse Midwife (ANM) who also diagnose minor ailments and distribute simple medicines.

As the Department of Public Health provides most of the service inputs, as well as material inputs to this ICDS component, the recurring costs need to be allocated to this particular Department. Another source of contribution to this component is UNICEF which contributed first aid kits and weighing machines to ICDS Child Care Centres. As numerous activities are undertaken under this component, it is necessary to trace the contributing source and the year of contribution in order to allocate costs. A sample stock list as below can help in gathering information:

**Figure 18**  
**Sample List of Materials Purchased for Health Check-ups**

Items	Purchased by
First Aid Kits	UNICEF
Weighing Scale	UNICEF
Growth Monitoring Charts	Department of Public Health

Once the source is established, details like the year of contribution, cost per item, replacements, etc. can be collected from the concerned Departments to estimate costs.

### **3B5. Immunisation**

Immunisation protects children and pregnant women from six vaccine preventable diseases – poliomyelitis, diphtheria, pertussis, tetanus, tuberculosis and measles. The Primary Health Centres and Municipal dispensaries carry out immunisation of infants and expectant mothers as per the national immunisation schedule. The Child Care Workers assist the health functionaries to cover the entire target population. As costs are also being borne by the Department of Public Health, the allocated costs will have to be reported. If a holistic picture of total program costs has to be estimated, cost data could be collected in the below format from the Department of Health and Department of Medical Services:

**Figure 19**  
**Immunisation Costs**

Vaccines
BCG
DPT
Measles
FST
OPV
TT (I and II Dose)



Further details like the cost per vaccine, total number of vaccines administered, number of users and the total costs could be gathered to get an indepth picture of costs

### 3B6. Referral Services

The services provided under this component vary in urban and rural areas. As urban ICDS Child Development Projects have a Medical Officer and ANMs to cater to the health needs of the users, except for the time contributed by these personnel, no other material cost is being borne by ICDS. The cost for health services in urban projects are covered by the pay and allowances of these health personnel. If there is a need for hospital referral, these personnel recommend the users to go to a nearby Government Hospital.

In rural areas, sick or malnourished children in need of prompt medical attention are provided referral services through ICDS. The Health Departments in the State identify one hospital at the district level which attends to the referral cases recommended by the rural Child Care Workers. Most often this component too does not get reflected in the expenditure heads of ICDS. A clear picture would emerge only if the following issues are addressed:

- ▶ Is the Child Care Worker expected to take up the responsibility?
- ▶ If this component is part of the ICDS program, are costs allocated separately? If not, is it a hidden cost being borne by the Department of Public Health?

The following format will be useful in gathering specific information to work out costs:

**Figure 20**  
**Cost of a Referral – a Sample Format**

Year (1998-99)	
Total No. of Referrals	
Children	
Mothers	
Adolescent Girls	
Referral Agency	Primary Health Centre Corporation Dispensary Government Hospital
Cost of a Referral	
Travel	
Medicines	
Special Diets	

### 3B7. Training/External Seminars and Conferences

This component is a crucial element of ICDS, since the achievement of program goals depends upon the effectiveness of human resources involved in empowering local communities. The ICDS functionaries receive pre-service and refresher training and are often deputed to various other seminars and conferences. There are both public and private institutions that offer training to ICDS personnel. It is not known as to how many such training courses are conducted each year. Very often, this component does not get reflected under major expenditure heads of the Government as costs are included in the pay and allowances of the Mobile Trainers employed in ICDS. But there are separate costs borne by other Departments and agencies for organising such programs. Therefore, it is necessary to trace the sources and calculate costs of such items using the format listed below:

**Figure 21**  
**Training Programs Conducted (ICDS)**

<b>Program Details</b>	
Nature of the Program	Training
Duration	One Week
Category of Participating Personnel	Child Development Project Officers
No. of Participants	25
Location of the Training	NIPCCD, Bangalore
<b>Cost Details</b>	
Stationery Costs	
Cost of Training Kit Materials	
Fee for Resource Persons	
Boarding and Lodging Costs	
Rent for the Venue	
Travel Costs	
Other Miscellaneous Costs	

In cases where personnel are deputed every year on a turn by turn basis for such programs, then the costs incurred towards such deputation need to be worked out.

**Figure 22**  
**Deputation to Training Programs**

Category of Personnel	Child Development Project Officer
No. of Personnel Deputed	2
Duration of the Program	15 days
Date/Month/Year	November – December 1998
Travel Costs	As fixed in accordance to the Grade
Dearness Allowance	As fixed in accordance to the Grade
Incidentals	As fixed in accordance to the Grade

Normally, the Government has fixed norms for allowing costs related to travel, dearness and other incidentals during deputation of personnel for each grade. If the training/seminar/conference organiser sponsors all these costs to the personnel deputed, then it may be a contribution from the Department or organisation doing so. As it may be difficult to go into such details due to lack of proper records, it may not be possible to estimate such costs.

### 3B8. Community Contribution

With more emphasis being placed in recent years on decentralisation of child care services and community participation, efforts are taken to elicit contributions both in cash and in kind from local users. Such contributions often need to be documented and monetised in cost frameworks. They can be further classified as those received in cash/kind from:

- Other Departments
- Other agencies like voluntary organisations, social clubs, international agencies etc.
- Local community referring to parents, Child Care Workers, local leaders, panchayats etc. As Child Care Workers cannot be strictly considered as part of the community, it is necessary to list their contributions separately as ICDS personnel.

The format below will give an idea as to the nature of contributions received in ICDS:

Apart from details on the items contributed, it is important to collect information on the numbers of items contributed, the number and type of persons who contributed, year of contribution, frequency of contribution and value of the items contributed to analyse the monetary value in terms of cost. For example, it has been orally reported that 142 lakhs worth of community contributions in Tamil Nadu were received (Dr. S. Muthiah of the Tamil Nadu Integrated Nutrition Project, now merged with ICDS). Such vital information can provide clear indications on the degree of participation and community contributions to the program.

**Figure 23**  
**Nature of Contributions in Kind**

Item
Mats
Plates
Tumblers
Vegetables
Whitewashing
Repair of Anganwadi Centre
Gifts
Snacks
Vessels
Stationery
Play Materials
Teaching-Learning Aids

#### **4. Management Information System**

Any program implemented with external funds is subject to continuous performance appraisal by the donors. In ICDS, it is not known whether this component is included separately in the budgetary provisions and reported as State expenditures. Normally, it is observed that the costs incurred for this activity get reflected in the program heads and may not be visible as a separate cost category. An attempt could be made to trace the costs that may be allocated under major program heads by posing questions such as: who is the donor of the program and who is responsible for managing the MIS? Review meetings, monitoring visits and donor evaluations will incur costs and it becomes necessary in a cost framework to include such hidden costs.

Any planning meeting conducted before the implementation phase also needs to be taken into account to review the planned, expected and unexpected outcomes of the program interventions. This may have project financial implications too, in the sense that under and over achievements of targets can be strictly monitored.

#### **Framework – A Summary**

If all the above capital and program components are monetised, then the following steps would help in deriving the total and unit costs. This model matrix has been developed to fit in the different heads maintained in ICDS, and may be modified to suit the needs of other programs. The matrix can be used for cost analysis, and a sample analysis has been attempted in Part II.

This matrix is based on the existing pattern of expenditure and cost (including hidden and allocated costs) and does not refer to normative costs. If normative costs are taken, especially for the two largest heads of expenditure, supplementary nutrition and personnel, a different picture would emerge which may be required for other purposes. This has not been attempted here.

## 5. Steps in Costing

**Figure 24 A**  
**Step 1: Cost Components**

<b>CAPITAL COSTS</b>	
Land Buildings Vehicles Furnitures and Fixtures e) Office Equipments (Computer, Typewriter, Photocopier, Overhead Projector etc.)	
<b>TOTAL OF CAPITAL COSTS</b>	
<b>REVENUE COSTS (RECURRING)</b>	
<b>A. Administrative Costs</b>	<b>B. Program Costs</b>
Depreciation Repairs and Maintenance Rent Printing and Stationery Communication Travel Transport and Loading Charges Rates and Taxes Electricity Advertisement and Publicity Pay and Allowances m) Honorarium to Child Care Workers n) Other Costs (Training, Replacement)	a) Supplementary Nutrition b) Nutritional and Health Education c) Immunization d) Health Check-up e) Referral Services f) Non Formal Preschool Education
<b>CONTRIBUTIONS</b>	
Other Departments (Department of Health, Tamil Nadu Slum Clearance Board, etc.) Other Agencies (UNICEF, NIPCCD, NGOs, Lions Club, Rotary Club) Community	
<b>ALLOCATED COSTS</b>	
<b>TOTAL OF RECURRING COSTS</b>	

**Figure 24B**  
**Step 2: Sub Details of the Recurring Cost Components**

<b>Administrative Costs</b>	<b>Program Costs</b>
<p>a. Pay and Allowances</p> <ul style="list-style-type: none"> <li>Pay</li> <li>Medical Allowance</li> <li>City Compensatory Allowance</li> <li>Interim Relief</li> <li>House Rent Allowance</li> <li>Honorarium</li> <li>Dearness Allowance</li> <li>Leave Travel Concession</li> <li>Festival Advance (+)</li> <li>Festival Advance (-)</li> <li>Old Age Pension</li> <li>Other Allowances</li> <li>Bonus</li> </ul> <p>b. Travelling Costs</p> <ul style="list-style-type: none"> <li>Tour Travelling Allowance</li> <li>Fixed Travelling Allowance</li> <li>Fuel Expenses</li> <li>Vehicle Repairs and Maintenance</li> <li>Transport and Loading Charges</li> </ul> <p>c. Other Costs</p> <ul style="list-style-type: none"> <li>Rent, Rates and Taxes</li> <li>Building Repairs and Maintenance</li> <li>Advertisement and Publicity</li> <li>Office Expenses</li> </ul>	<p>a. Supplementary Nutrition</p> <ul style="list-style-type: none"> <li>Vegetables/Condiments/Firewood</li> <li>Rice</li> <li>Dhall</li> <li>Oil</li> <li>Iodised Salt</li> <li>Eggs</li> <li>Supplementary Feeding/Weaning Food</li> </ul> <p>b. Nutritional and Health Education</p> <ul style="list-style-type: none"> <li>Materials for Training/Seminars</li> <li>Honorarium to Resource Persons</li> <li>Training Expenses for Staff</li> <li>Others</li> </ul> <p>c. Immunisation – Cost of</p> <p>d. Health Check-ups</p> <ul style="list-style-type: none"> <li>Medicines/First Aid Kit</li> </ul> <p>e. Referral Services</p> <p>f. Non Formal Preschool Education</p> <ul style="list-style-type: none"> <li>Prizes and Awards</li> <li>Teaching Aids</li> <li>Play Materials</li> </ul>

**Figure 24C**  
**Step 3: Consolidated Statement**

**COST SHEET**

**A. Capital Costs**

Total Costs

**B. Revenue Costs**

Administrative Costs

Program Costs

Contributions

Allocated Costs

Total Costs

**Ratio Analysis**

Capital Costs as % of Total Costs

Administrative Costs as % of Total Costs

Program Costs as % of Total Costs

Contributions as % of Total Costs

Allocated Costs as % of Total Costs

**Sub-Analysis**

No. of Children

No. of Centres

No. of Projects

**Unit Costs**

Program Cost/Child/Centre/Project/Day (in Rupees)

Program Cost/Child/Centre/Project/Year

Total Cost/Child/Centre/Project/Day

Total Cost/Child/Centre/Project/Year

## Part II

### Sample Cost Analysis of ICDS

The Integrated Child Development Services, selected as a model for this sample analysis provides a holistic package of the following **six services** to achieve its overall objectives:

- Supplementary Nutrition
- Nutrition and Health Education
- Immunization
- Health Check-ups
- Referral Services
- Non Formal Pre-school Education

The Department of Women and Child Development of the Ministry of Human Resource Development, Government of India is the nodal agency involved in the implementation of this scheme through the State Departments of Social Welfare with active collaboration of other Departments. The approved provision for the scheme during the Ninth Five Year Plan (1997-98 to 2001-2002) is Rs. 4979.88 crores. From 4,348 operational ICDS projects in the country (as on December 1999), it is proposed to scale up to more than 5,171 projects in a phased manner (Government of India) by the end of the Ninth Plan period. Due to this commitment, the Centre and the State has a significant financial commitment to cater to the growing needs of young children and women. As a Welfare State, it thus becomes imperative to manage such commitments economically. With this background, the framework designed in the earlier section was applied for the sample analysis.

#### Introduction to the Analysis

Some approaches to cost analysis of ICDS have been discussed in the earlier section of this report. In order to check whether they are suitable and practical approaches, this sample analysis has used a combination of methodologies to calculate costs. As the objectives, geographical spread, services, program components and sub-components of ICDS, have already been described, only aspects taken up in this sample analysis are touched upon here.



## Methodology

ICDS, which started on an experimental basis in 3 projects in Tamil Nadu now includes 113 projects (inclusive of SIDA supported projects), out of which 44 are urban, 67 rural and 2 tribal, spread over a total number of 10, 466 child care centres. Each project covers a population of 1 lakh and has approximately 100 child care (anganwadi) centres. Out of these 113 projects, 4 are SIDA supported. Keeping this in mind, the following study regions were defined and selected:

### Study Regions

In order to document costs within the framework developed, sample data were gathered at three levels – macro, meso and micro.

At the *macro level*, data pertaining to the Central and State expenditure of ICDS in the 26 districts of Tamil Nadu have been reported. All data related to reported expenditure were obtained from the Directorate of Social Welfare and they include additional expenditure of SIDA supported projects in Tamil Nadu. However, costs pertaining to land, building, repair and maintenance, health and immunisation incurred by several other Departments like Public Health, Directorate of Medical Services, Department of Food and Civil Supplies, Department of Rural Development, District Collectorates, Industrial Co-operative Societies, Public Works Department, Department of Animal Husbandry and TAPCO are not included here as it was not possible to compile and consolidate data on such allocated costs. The following table shows the samples taken for this analysis:

**Table 9**  
**Sample Regions Selected for the Analysis**

Levels	Program Structure	Child Development Project Offices	Child Care Centres
<b>Macro</b>	ICDS	113	10,466
<b>Meso Urban</b>	Child Development Project Office VII	1	86
<b>Rural</b>	Child Development Project Office, Thalli	1	144
<b>Micro Urban</b>	Child Care Centre	Nil	2
<b>Rural</b>	Child Care Centre	Nil	2

Source: Directorate of Social Welfare; Child Development Project Offices

As for the rural *meso* sample, Thalli Child Development Project Office located in Dharmapuri District was chosen as it is considered to be one of the oldest Projects started in the country as a whole. Moreover, this Project area is situated in a hilly terrain, popularly known as "Little England" in Dharmapuri District of Tamil Nadu. (But for Government officials it is thought to be a punishment area!). The urban sample in Chennai was selected for convenience in accessing cost data. The two child care centres in each meso project, rural and urban, were selected with guidance from the respective Child Development Project Officer. The *micro-urban* was selected because of the easy accessibility by road and the other for its semi-urban location in a distant slum. A similar procedure was adopted at the rural micro-level as one centre was located near the Child Development Project Office and the other was situated at a distance.

### User Categories

At the three different levels taken for the sample analysis, it was thought important to further break up the costs in terms of different user categories. Due to lack of time and data only children (aged between 6 months to 2 years) were taken as the users of the program for this analysis.

**Table 10**  
**Sample Children Selected for the Analysis**

Levels		Children*	
		6 months – 2 years	2 years – 5 years
Macro		1,61,727	3,14,381
Meso			
<i>Urban</i>	Chennai Project VII	868	2,406
<i>Rural</i>	Thalli	2,785	6,339
Micro			
<i>Urban</i>	T.V.K. Nagar	20	55
	Chinnandimadam	25	55
<i>Rural</i>	Thalli Kothanur	25	45
	Marupalli	23	55

\* Only numbers fed have been reported

Source: Directorate of Social Welfare; Child Development Project Offices; Child Care Centres

The above table clearly indicates the program reach to children in different age groups. Only actual number of children who received Supplementary Feeding and Noon Meals have been

reported here for the purpose of cost estimates. The children belonging to the 6 months to 2 years age group do not participate in the activities of the Child Care Centres but receive Supplementary Feeding. The 2 to 5 year olds attend the Child Care Centres regularly and the reported numbers are consolidated at various levels using attendance reports.

### ***Study Period***

Though a five-year period would have been ideal to calculate the costs and study variations in trends, only reported expenditure and estimates of costs incurred during the financial year 1998-1999 in ICDS were taken into account for analysis. This was due to limitations of time and inaccessibility of data.

### ***Data Sources***

The following secondary sources of data were consulted at different levels for purpose of this sample analysis:

#### **Program Records**

- Project Summary of ICDS
- Performance Reports
- Program Reports
- Training Reports

#### **Records with Financial Implication**

- Reported Annual Expenditure Statements (1998-99)
- Land Records
- Stock Register
- Indents
- Vehicle Movement Register

Wherever possible, efforts were also taken to compile cost data from other departments like the Department of Municipal Administration, Department of Public Health and Tamil Nadu Slum Clearance Board. Interviews with officials also helped to learn about the program process, procedures and interventions at the various levels.

The Directorate of Social Welfare's had the following format to report expenditure under five different head of accounts i.e. SC, SD, AZ, SA and PA heads, as follows:

Figure 25

## Expenditure Head of Accounts maintained by the Directorate of Social Welfare

<b>SC</b>	<ul style="list-style-type: none"> <li>➤ Salaries of ICDS staff</li> <li>➤ Allowances</li> <li>➤ Office Expenses</li> <li>➤ Purchase of Capital Items</li> <li>➤ Maintenance Expenses</li> <li>➤ Stationery</li> </ul>
<b>SD</b>	<ul style="list-style-type: none"> <li>➤ Training Staff Salaries and Allowances</li> </ul>
<b>AZ</b>	<ul style="list-style-type: none"> <li>➤ Honorarium for Helper II</li> <li>➤ Costs of Fuel</li> <li>➤ Vegetables and Condiments</li> <li>➤ Supplementary Feeding</li> <li>➤ Transport</li> </ul>
<b>SA</b>	<ul style="list-style-type: none"> <li>➤ Expenditure incurred at the 4 District Offices Supported by SIDA – Kancheepuram, Tiruvallur, Pudukkottai and Nilgiris</li> </ul>
<b>PA</b>	<ul style="list-style-type: none"> <li>➤ Additional Programs in SIDA</li> </ul>

The heads of accounts SC and SD are Centrally Sponsored and AZ is State sponsored whereas SA and PA are heads maintained for SIDA supported projects in 4 districts. In order to look into the program and administrative costs incurred for the different components of ICDS, the steps outlined in the earlier section were followed to calculate costs at three different levels – State, Project and Centre. Program and administrative costs inclusive of SIDA expenditure were then segregated within the original Government format and regrouped in accordance with the steps outlined in the framework.

### The Analysis

As discussed earlier in the framework, any cost analysis, apart from capital costs, includes revenue costs – administrative and program costs. Both costs are of significance, though magnitudes may be difficult to compare, because of the nature and characteristics of each. The following sections look in detail as to how these costs are incurred at the various levels taken for analysis.

## 2. Capital Costs

ICDS had faced the challenge of spreading geographically almost throughout the State of Tamil Nadu, reflected not only in terms of physical expansion but also in terms of its programmatic impact on various stakeholders. But methodologically speaking, it was a mind-boggling exercise to identify and differentiate the capital costs incurred by ICDS. This is partly because of the ownership of immovable capital items by various public and private parties, lack of consolidated data on capital items procured during varying time periods and inaccessibility of many of the records with cost implications. Some of the available data on capital items are studied below:

### Land and Buildings

It was observed during the data collection process that the Department of Municipal Administration, Department of Rural Development, Tamil Nadu Slum Clearance Board and some private parties had been vested with ownership of land and buildings as reported earlier and seen in the below table:

**Table 11**  
**Land and Building Ownership (some examples from ICDS)**

Location	Nature of Location	No. of Land Units	Ownership
Chennai Project VII	Urban	86	<ul style="list-style-type: none"> <li>▶ Department of Municipal Administration</li> <li>▶ Corporation of Chennai</li> <li>▶ Tamil Nadu Slum Clearance Board</li> <li>▶ Private Land</li> <li>▶ Temple Land</li> <li>▶ Wakf Board Land</li> </ul>
Thalli	Rural	144	▶ Department of Rural Development

*Courtesy: Mr. S. Pandian, Resettlement and Rehabilitation Co-ordinator, Tamil Nadu Industrial Development Corporation*

Though the above data on land ownership were available, it was difficult to gather other baseline information pertaining to the extent of land, type of land, data of purchase/acquisition, location and market value. Therefore, a cost analysis of land could not be included here. Likewise, buildings had to be excluded from this analysis due to lack of documentation on aspects like specific ownership at the meso and micro levels, type designs, period and cost of construction of buildings, total area utilised for construction, etc. and the impossibility of getting such information within the time available.

## Vehicles

Vehicles in this context only refer to Mahindra jeeps being utilised at the macro and meso levels. The following are the reported number of vehicles purchased during varying time periods for ICDS program functionaries:

**Table 12**  
**Details of ICDS Vehicles**

Levels	No. of Vehicles	Year of Purchase	Nos. requiring Replacement*
Macro	163	1985 onwards	107
Meso Urban	2	Not known	2
Rural	1	Not known	1

\* Estimates based on the year of purchase and interviews with program personnel

Though it is reported that vehicles have been purchased from the year 1985 onwards, it is not known whether the costs were incurred under ICDS towards purchase of these vehicles. It is also not known whether inter-departmental arrangements were made to transfer vehicles to ICDS. If this is the case, it is assumed that Government as an integrated administrative machinery would have purchased/transferred these vehicles using budgetary heads of other Departments. It would be interesting to study this aspect in detail if costs have to be ascertained. But in this analysis, the rate of depreciation is zero, as most of the vehicles in ICDS have completed their life span of 8 years.

## Office Equipment

Items like computers, typewriters, photocopiers, roneo printers and OHPs are considered as office equipment. As asset registers were not accessible to ascertain capital costs, physical verification as a method was resorted to in this exercise. The following items were found at the various levels:

**Table 13**  
**Available Details on Office Equipment**

Level	Office Equipment	Numbers
Macro	Typewriters Xerox and roneo machines Computers and Printers OHPs	Not known
Meso	Typewriters Roneo Machines	4 (2 in Urban and 2 in Rural) 2 (2 in Urban and 2 in Rural)
Micro	None	None

As details like the year of purchase, model and cost are not available, the above items cannot be monetised and therefore, had to be completely excluded from this analysis.

### Furniture and Fixtures

Both branded models and locally-made wooden and steel furniture were available in ICDS. As asset registers were inaccessible, the observed numbers have been reported below:

**Table 14**  
**Available Details on Furniture and Fixtures**

Level	Furniture	Observed Numbers	
		Urban	Rural
Macro Level	Not Known		
Meso Level	Tables	4	5
	Chairs	5	6
	Storage Rack	1	1
	Steel Cupboard	1	3
	Wooden Bench	1	2
	Notice Board	2	1
Micro Level	Table	2	1
	Chair	2	2
	Wooden Bench	2	2
	Wooden Storage Box	2	2

No cost analysis could be done on the observed numbers of furniture listed above due to lack of data on year of purchase and cost. The life term of these furnitures could not be guessed and therefore, replacement costs too do not figure in this analysis.

An analysis of capital costs was not possible in this sample analysis, because of lack of data and time.

### 3. Revenue Costs

Revenue costs can further be split as administrative and program costs. In any program, administrative costs tend to remain the same with increase or decrease in volume of services but program costs vary proportionately with the volume of services offered. Given this difference in the nature of costs, it is important to note that per unit costs have a tendency to decrease with higher volume of services. In this sample analysis of ICDS, the

program costs are variable in nature and administrative costs are fixed in nature. Administrative costs have to be incurred irrespective of the number of users who are in receipt of services under ICDS whereas the program costs will either increase or decrease in accordance to the number of users.

### Administrative Costs

As outlined in the framework, let us look into detail how administrative costs had performed in ICDS during the financial year 1998-99. For purpose of this analysis, only reported expenditure statements were referred at all levels of ICDS including SIDA supported projects and therefore, a total cost picture (less personnel costs) in terms of estimated and allocated costs will not emerge from the table given below:

**Table 15**  
**Administrative Expenditure Incurred in ICDS (less Personnel Costs)**

Items	Administrative Expenditure (1998-99) (in Rs.) (less personnel costs)						
	Macro**	Meso		Micro			
		Urban	Rural	Urban		Rural	
		P1	P2	C1	C2	C3	C4
Depreciation	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Rent	95,73,000	1,38,540	Nil	Nil	Nil	Nil	Nil
Repairs and Maintenance <sup>1</sup>	Nil	2,000	6,17,830	Nil	Nil	2,000	1,500
Printing and Stationery	10,13,000	44,375	48,444	Nil	Nil	Nil	Nil
Communication	7,34,000	4,647	1,728	Nil	Nil	Nil	Nil
Travel*	83,73,000	37,013	81,138	Nil	Nil	Nil	Nil
Rates and Taxes	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Electricity	3,34,000	2,175	3,677	Nil	Nil	Nil	Nil
Advertisement and Publicity	4,12,000	1,500	1,500	Nil	Nil	Nil	Nil
Transport and Loading Charges	61,05,000	20,417	40,000	153	215.20	306	270
<b>Total</b>	<b>2,65,44,000</b>	<b>2,50,667</b>	<b>7,94,317</b>	<b>153</b>	<b>215.20</b>	<b>2,306</b>	<b>1,770</b>

\* includes Tour Travelling Allowances, Fixed Travelling Allowances, Fuel Expenses and Vehicle Repairs

<sup>1</sup> Separate estimates maintained towards building repair

\*\* Includes SIDA expenditure

Key: P1 – Project VII, Chennai; P2 – Thalli; C1 – T.V.K. Nagar; C2 – Chinnandimadam; C3 – Thalli Kothanur and C4 - Marupalli



The above table which reports expenditure at various levels clearly indicate that most of the administrative expenditure is incurred at the macro and meso levels. As explained earlier, the macro level reports the day to day expenditure of the Directorate of Social Welfare which monitors the overall functioning of the ICDS in 26 Districts and 113 Projects as a whole in Tamil Nadu. The Child Development Project Offices at the meso level reports consolidated expenditure incurred towards maintenance of its office as well as for the delivery of services through the Child Care Centres under its jurisdiction.

Though all the items described in the table have been defined in the framework, items such as communication report only the expenditure incurred for telephone charges during the financial year. It is evident that rent is a recurring expenditure reported only at the macro and urban-meso level. It is not known at the macro level whether rent refers to the consolidated expenditure incurred towards payment of rent for the District Program Offices and the Child Development Project Offices in Tamil Nadu. Similarly, it is not clear as to how or whether rent payment for Child Care Centres is taken care of at the micro level. Repairs and maintenance at the urban-meso level reports the expenditure incurred towards office equipment and rural-meso level for repairs of the 144 Child Care Centres under its jurisdiction.

Travel is one of the important items of recurring expenditure at the macro and meso levels. The below table give a detailed description of its sub-items:

**Table 16**  
**Sub-Items of Travel Expenditure**

Sub-Items of Travel	Macro	Meso	
		Urban	Rural
Tour Travelling Allowance	45,51,000	1,431	76,554
Fixed Travel Allowance	8,85,000	10,067	4,473
Fuel	21,69,000	17,015	111
Vehicle Repair	7,68,000	8,500	-
Total	83,73,000	37,013	81,138

The above table points to glaring differences in the expenditure patterns for the financial year 1998-99. As many of the Government procedures remain unknown to external agencies, it is very difficult to interpret these differences. If a thorough analysis has to be done, details like the purpose for TTA and FTA and personnel who are eligible for it has to be gathered. According to the status report of ICDS vehicles in Tamil Nadu, there are 163 Mahindra jeeps utilised at various levels of the organisational hierarchy. At the macro level, 107 vehicles are in need of urgent replacement and the rural-meso level data is one such example to point this need.

It is seen in the above table that a meagre sum of Rs. 111 was spent towards fuel i.e petrol, oil and lubricants for one whole year. Does the project have a vehicle in good condition? For a project that has 144 centres under its jurisdiction, is it possible to properly monitor delivery of services at the field level if fuel usage is so low? are issues that crop up from this data.

Project Personnel at the rural-meso level reported that Child Care Centres were located between a minimum distance of half a kilometre from the Project Office to a maximum of 100 kilometres and that the fuel allotment should be increased for effective monitoring. They also suggested replacement of the vehicle to curb repair and maintenance costs. Based on the suggestion, further probing on this aspect revealed that there was a fixed quota in terms of fuel allotment in ICDS. There is a Government Order that allows for monthly fuel usage depending on the nature of the location of District Program offices and Child Development Project Offices. The following table describes it in detail:

**Table 17**  
**Prescribed Diesel Allotment**

<b>Location</b>	<b>Allotment of Diesel</b>
Rural	150 Litres
Urban	125 Litres
Hills	200 Litres
State/District projects	200 Litres

*Source: G.O. No. 2 (D), No. 51 Social Welfare and Noon Meal Programme*

However, if an estimate based on the above quota is calculated, the ground realities would be more clear, as in the below table:

**Table 18**  
**Actual Fuel Costs**

<b>Actual Costs incurred at the Macro Level* (1998-1999)</b>	<b>Annual Fuel Costs (derived from Previous Table)</b>
Rs. 21,69,000	Rs. 29, 34,000 (on an average of 150 litres per month for a vehicle at the rate of Rs. 10 per litre for 163 ICDS vehicles)

\* Inclusive of SIDA expenditure

The actual expenses on fuel is only 74% of the costs (inclusive of SIDA) derived from the fuel allotment. The average fuel cost per vehicle is Rs. 1109 per month i.e. on an average only 110 litres of diesel have been claimed per vehicle. This raises the following queries:

- Are vehicles under-utilised?
- Has there been lesser financial allocations towards consumption of diesel?
- Is poor condition of ICDS vehicles which are frequently prone to repairs the cause?
- Does supervision and monitoring take place at regular intervals?
- Are all the Child Care Centres being personally visited at least once during a year?

### Personnel Costs

In ICDS, personnel employed at the macro and meso levels fall under the regular category as they enjoy pay scales and allowances. The personnel (Child Care Workers) at the micro level as stated in the framework have a temporary/informal/undefined work status and they receive a fixed honorarium. It can be assumed that the following are the numbers of personnel at each level (reported in detail in the framework):

**Table 19**  
**Assumed Numbers of Regular and Temporary Personnel in ICDS**

Levels	Category-wise Assumed Numbers of Personnel in Tamil Nadu	
	Regular	Temporary
Macro*	364	None
Meso	1,438	None
Micro	None	27,260
Total	1,802	27,260

\* Total personnel at State Directorate and District Program Offices

Based on the above table, it is very difficult to calculate expenditure or costs of personnel employed in various Grades of Government Services at the macro and meso levels. This is because these personnel may have varied years of experience and would have received promotions to other Grades due to which their pay scales would differ. Due to inaccessibility

of data on such issues, only reported expenditure incurred under the accounting heads of pay and allowances at the macro and meso levels and honorarium at the micro level has been taken for analysis. The following table provides more information in detail:

**Table 20**  
**Reported Expenditure on Personnel in ICDS, Tamil Nadu**

Items	Expenditure (1998-99) (in Rs.)						
	Regular			Temporary			
	Macro*	Meso**		Micro***			
		Urban	Rural	Urban		Rural	
P1		P2	C1	C2	C3	C4	
Pay and Allowances	33,27,69,000	27,79,324	28,97,466	Nil	Nil	Nil	Nil
Honorarium	8,21,97,000	8,43,255	11,97,039	23,400	23,400	26,556	23,400
Total	41,49,66,000	36,22,579	40,94,505	23,400	23,400	26,556	23,400

\* Includes SIDA expenditure

\*\* Expenditure reported at the urban and rural projects selected as samples in the analysis.

\*\*\* Oral interviews with CCWs and therefore, estimated expenditure is reported only for the particular Child Care centre taken as samples.

The pay and allowances at the macro level is inclusive of all the expenditure incurred for 1,802 (assumed numbers) regular category of personnel in Tamil Nadu. As the Grades and pay scales of these personnel are unknown, it is therefore very difficult to go into an indepth analysis. But it is clear from the above table that personnel expenditure at the macro level is unbalanced as 1,802 personnel in the regular category take away 80% of financial resources of the ICDS program whereas 27,260 temporary personnel involved in actual field implementation consume only 20% of the resources.

Further cross-checking of the reported expenditure for the assumed number of 27, 260 temporary personnel throws some more interesting insights. If the actual expenditure on honorarium reported at the micro level based on our field interviews is taken into account, then the picture looks different as the below estimates will help to point out:

**Table 21**  
**Annual Estimated Expenditure for Temporary Category of Personnel in ICDS**

Designation	Assumed Number of personnel (A)	Honorarium Per Person Per Month(B)	Annual Estimated Expenditure (A X B X 12)
Anganwadi Workers	13,314	1,123	17,94,19,464
Helper I	10,110	530	6,42,99,600
Helper II	3,836	460	2,11,74,720
Total	27,260	2,113	26,48,93,784

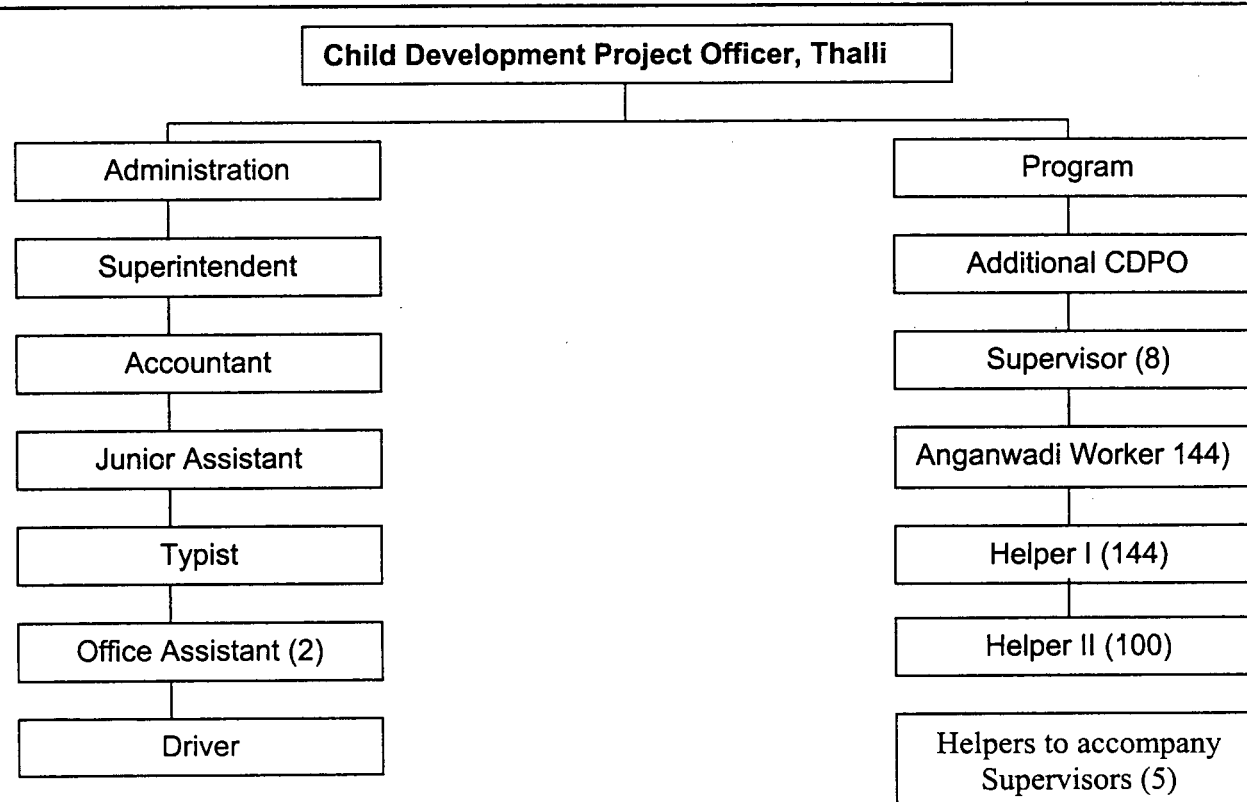
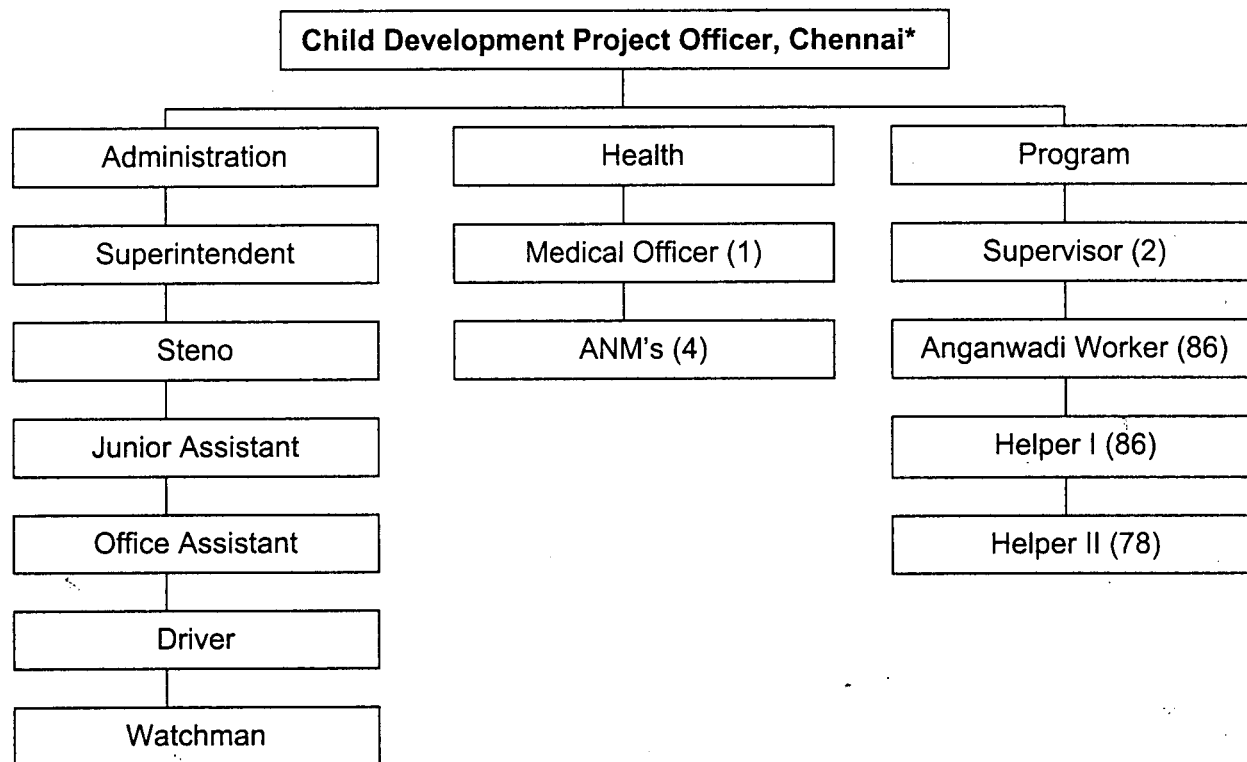
The above table points clearly to the difference between the reported macro level expenditure on honorarium (Rs.8,21,97,000) and the estimated annual expenditure (Rs. 26,48,93,784). As the actual number of temporary personnel employed in ICDS is not known, it becomes very difficult to interpret this difference. One possible assumption is that there would have been vacant positions lying in ICDS during the financial year 1998-99 and therefore, expenditure may not have been incurred towards honorarium.

The basis on which honorarium is fixed is not clear. If normative estimates are applied, then the following issues arise on which further study is required:

- How can a way be found to bridge pay differences between regular and temporary personnel?
- Section 27 of the Minimum Wages Act does not list Child Care Workers. Could they be considered as skilled or at least semi-skilled labour?
- Can prevailing wage rates be emphasised for temporary personnel in this context?

In order to look into the meso level expenditure reported above, a similar exercise could also be undertaken using the organisational structure of Child Development Project Offices selected in this analysis and as described in the below diagrams:

## Organisational Structure of Child Development Project Offices



Each Child Development Project Office has a varied geographic spread of Child Care Centres under its jurisdiction. The number of personnel employed at the meso level influences the personnel costs and there would be variations depending on the location of the Child Development Project Office. In case of the urban-meso level, there were additional personnel like medical officer and auxiliary nurse midwife catering to the health component of ICDS. Many sources reported that medical officers were self-drawing personnel who were on regular transfers from the Department of Medical Services (DMS) and placed in ICDS. Therefore, the following aspects need further study:

- Are their pay and allowances reported in ICDS?
- Would it be an allocated cost if the DMS is bearing that expenditure?
- How many Medical Officers and ANMs are part of ICDS?

As actual data was collected on the number of temporary personnel involved in field implementation of the ICDS program at the meso level, the below table could be used to cross-check the ratio of personnel with that of the 0-6 year old children reached:

**Table 22**  
**Field Personnel Covered by Selected Projects**

Designation	Actual Numbers of Personnel	
	Urban	Rural
Anganwadi Worker	86	144
Helper I	86	144
Helper II	78	100
Total	250	388

The urban-meso level as reported in the earlier section had a total of 3,274 children and the ratio of worker-child ratio was 1:13 whereas in the rural-meso level with a total of 9,124 children and 144 Child Care Centres, the ratio was 1:24. When the meso outreach using this ratio is compared with the personnel expenditure, it reveals that the urban-meso per child expenditure is high compared to the rural-meso level. Further explorations need to be done to study the administrative pattern at the meso level and community dynamics at the urban-micro level as this poor trend has cost implications in terms of program outcomes.

## Program Costs

In this section, an outline of the features of the ICDS program with diverse variations in delivery of services to children at its macro, meso and micro levels have been documented in relation to the reported expenditure. Wherever reported expenditure could not be found, estimates have been included. Before taking it up, it is necessary to comment on the context.

Part of the program context to be considered while costing are the intangible features which are essential for understanding program functioning. This is the political context in which the program operates. It includes, for example, understanding the user communities or other powerful stakeholders involved in the program, how funding is secured and allocated, the role of top bureaucrats in shaping policies, problems encountered in the delivery process and so forth.

Below is an outline of the elements of the *context*- the tangible aspects of the program and its setting:

- The Directorate of Social Welfare, Child Development Project Offices and the Child Care Centres as the structure within which the program exists.
- Resources used, including materials purchased especially for the program
- Program outreach to children

Both these features of the program will shape the activities and therefore, expenditure patterns may be influenced by the dynamics operating in the context. Due to limited time and inaccessibility of data, a thorough cost analysis could not be attempted in relation to the context. But the gaps in cost data found in this section will help future research to address the program activities in totality. Let us now look into the reported material expenditure and estimates of various program components of ICDS.

### Supplementary Nutrition

This component can further be sub-divided into Supplementary Feeding and Noon Meals. Supplementary Feeding is a reported expenditure in ICDS and is procured through the Industrial Co-operative Societies involved in manufacture, packaging and distribution of the food to the various Child Care Centres in the State. All Child Care Centres place an indent for every quarter based on the actual feeding requirement to children in the age group of 6 months to 2 years and pregnant and lactating women. This is in-turn processed and consolidated by the respective Child Development Project Offices in the State. The Child



Development Project then places an order to the nearby Industrial Co-operative Society, yet another women's welfare initiative of the Directorate of Social Welfare. Based on the orders received, the Industrial Co-operative Societies produce the required quantities of the food and distribute them. The transport and loading expenses being borne by these Societies are then re-imbursed by the ICDS program. For purpose of this analysis, the reported expenditure incurred for children has been included.

In the case of Noon Meals, estimated expenditures calculated by the authors have been reported. This is because the expenditure does not figure under the reported expenditure items of ICDS. In the process of data collection, it was found that contribution of rice, gram, oil, iodised salt and eggs to ICDS was through another Scheme of the Department of Social Welfare known as the Puratchi Thalaivar MGR Noon Meal Program (PTNMP). Rice, gram, oil and salt are procured from the Tamil Nadu Civil Supplies Corporation Limited by the PTNMP for all Child Care Centres and schools in Tamil Nadu. Eggs are procured from private contractors through an open tender system from all over Tamil Nadu and PTNMP selects the private contractor. The quoted price varies from one region to another in Tamil Nadu and therefore, the average price has been calculated and quoted in this analysis. The Department of Animal Husbandry checks and controls quality supply of eggs through regular monitoring and these costs are excluded. Supply of eggs in urban and rural areas are the responsibility of the private contractors and the egg price covers the cost of transportation, according to the ICDS officials. It is interesting to note that urban Child Care Centres receive boiled eggs directly from the contractors and the rural Child Care Centres receive raw eggs which are boiled and fed to children once a week. Let us see what the reported and estimated expenditure patterns for children reflect in this context:

**Table 23**  
**Expenditure on Supplementary Nutrition**

Levels	Expenditure (in Rs.)		
	Supplementary Feeding*	Noon Meals**	Total
Macro	5,19,24,860	15,33,03,423	21,73,60,285
Meso			
Urban	3,21,900	8,16,718.	11,38,618
Rural	7,66,906	29,82,087	37,48,994
Micro			
Urban T.V.K.Nagar	5,901	9,018	14,919
Chinnandimadam	4,590	11,609	16,199
Rural Thalli Kothanur	13,150	22,473	35,623
Marupalli	7,208	24,477	31,685

\* Estimated expenditure for children \*\* Estimated Allocated Expenditure incurred by PTNMP

In the above table, there are rural-urban differences in the expenditure at the meso level as the number of centres under the purview of each of these projects are varied - rural has 144 centres and urban has 86 centres. But at the micro level, it was found that the quantities of Supplementary Feeding consumed by the children were much higher and are reflected in the estimated expenditure. As Supplementary Feeding sub-component at all levels reported the quantities of food consumed and the overall expenditure incurred for children, pregnant and lactating mothers, it became very important in this analysis to split the expenditure for children. As financial records do not have separate reporting systems for different user categories, it was necessary to estimate the expenditure on the basis of the number of children (6 months to 2 years) and the quantity of food consumed by them during the financial year 1998-99. As it was found difficult to obtain details on the quantity and expenditure for children categorised on the basis of their nutritional status - normal Grade I and II and Grade III and IV, the above expenditures have assumed that all children are under the normal Grade I and II category. Therefore, each child was assumed to consume 80 grams of Supplementary Feeding per day and the total quantity of food consumed at the three levels has been calculated based on this assumption to derive the overall expenditure for children. Though this is an underestimated analysis, it is expected that depending on the number of Grade III and IV children, the actual figures would be much higher.

The Noon Meal component reports an estimated allocated expenditure incurred by the PTNMP for ICDS. Though the procurement for ICDS and PTNMP is done through the Tamil Nadu Civil Supplies Corporation Limited, it was found that ICDS received the common variety of boiled rice having less calorific value, which is also not suitable for the intake of young children. It is noted that the worst quality of rice is most often served to preschool children, while the finer quality of rice was provided to the primary and secondary school going children. However, it may be noted that the Tamil Nadu Civil Supplies Corporation Limited offered these items at a subsidised price higher than the Public Distribution System (PDS) rates and lesser than the market value. Only transportation and pilferage costs would be an additional expense incurred by the Tamil Nadu Civil Supplies Corporation Limited and it is not known whether these are re-imbursed by either the PTNMP or ICDS. But the estimated expenditure calculated by multiplying the quantities consumed in kilograms with that of the per kilogram price can be cross-checked with that of the allotted financial quota of Rs. 1.05 per child per day to find variations between estimated expenditure and expected expenditure. Having received a holistic picture of the Noon meal sub-component, let us further break up the above table at the all the three levels as follows:

**Table 24**  
**Expenditure on Noon Meals**

Noon Meal Expenditure (In Rs.)							
Items	Macro	Meso		Micro			
		Urban	Rural	Urban		Rural	
		P1	P2	C1	C2	C3	C4
Vegetables, Firewood and Condiments	1,70,28,000 11%	1,15,158 14%	3,40,447 11%	1,774 20%	1,981 17%	2,790 12%	3,535 14%
Rice	7,98,09,350 52%	4,02,236 49%	17,23,545 58%	4,147 46%	5,479 47%	12,785 57%	13,140 54%
Gram	2,49,73,631 16%	1,18,910 15%	4,56,652 15%	1,223 14%	1,618 14%	3,278 15%	3,413 14%
Oil	1,04,59,700 7%	47,677 6%	1,45,078 5%	510 5%	673 6%	1,182 5%	1,350 6%
Iodised Salt	69,740 0%	2,465 0%	8,637 0%	26.00 0%	34 0%	62 0%	70 0%
Eggs	2,09,63,002 14%	1,30,272 16%	3,07,728 10%	1,338 15%	1,824 16%	2,376 11%	2,970 12%
Total	15,33,03,423 100%	8,16,718 100%	29,82,087 100%	9,018 100%	11,609 100%	22,473 100%	24,478 100%

From the above table, it is evident that a major percentage of the expenditure is incurred for rice, gram and eggs. The above estimates were calculated on the basis of multiplying the quantities of the above items consumed by children with that of the price. At the macro and meso levels, a major percentage of estimated expenditure is on rice. Interviews with personnel at the rural-micro level revealed that raw eggs were supplied at the Child Development Project Office at Thalli and they had to travel a distance varying from half a kilometre to 100 kilometres to collect them. There were also complaints on the poor public transportation services in hilly regions of Thalli and they expressed the risk in terms of damage to eggs involved during transit. It was even reported that they had to spend money from their pockets towards transportation costs and it is not known whether they were reimbursed. Moreover, the above table clearly points that vegetables, firewood and condiments have a lower percentage of expenses when compared to other individual items listed in this component. Is firewood sufficient to cook noon meals properly? Does half cooked food prove healthier for young children in the long run? Are the personnel involved in gathering firewood from other sources? How much time of theirs are spent on such activities not connected to their job profile? These issues remain to be further investigated.

## Nutrition and Health Education

As discussed earlier in the framework, this key element has the long-term goal of capacity building of women in the age group of 15-45 through different intervention strategies based at the field level. It is clearly visible from the below table that not much expenditure is incurred under this component:

**Table 25**  
**Expenditure on Reported Material Items under Nutrition and Health Education**

Levels	Items	Expenditure	Total	
Macro	Materials for Seminars	5,49,000	79,92,000	
	Training (SIDA)	73,42,000		
	Miscellaneous	1,01,000		
Meso	Urban	Materials for Nutrition Week	1,500	1,500
	Rural	Nil	Nil	Nil
Micro - Urban and Rural	Nil	Nil	Nil	

Under this component, the SIDA supported projects in four districts of Tamil Nadu have reported expenditure on training for adolescent girls, mothers and Child Care Workers. As this component does not have a direct intervention with children and reports only specific activities during the financial year taken for this analysis, not much could be commented here. But it is assumed that some of the materials bought under this head are being used for Preschool Education.

### Immunisation

It is clearly known that this component is totally taken care of by the Department of Public Health and Department of Medical Services. Therefore, all material expenditure would be reflected in the reports of these Departments with no extra cost to ICDS program. However, ICDS personnel contribute their time towards immunisation and it is not possible to monetise it as a hidden cost due to lack of data and time. Yet another aspect that needs further clarification is on the nature of hidden costs being borne by either the Child Care Workers or the parents for travel to Primary Health Centres and other Municipal dispensaries. So no analysis has been attempted here.

### Health Check-ups

In this analysis, health check-ups as a component has reported allocated material expenditure from UNICEF and DPH related to supply of first aid kits. A basic kit would contain cotton, paracetamol, band aid, dettol and other medicines.

**Table 26**  
**Expenditure on First Aid Kits**

Levels		Items	Expenditure
Macro		First Aid Kits	2,92,000
Meso			
Urban		First Aid Kits	5,000
Rural		Nil	Nil
Micro			
Urban	T.V.K.Nagar	First Aid Kit	240
	Chinnandimadam	First Aid Kit	240
Rural	Thalli Kothanur	First Aid Kit	240
	Marupalli	First Aid Kit	240

Though the above table reports allocated material expenditure at all levels, it is not known as to what procedures are followed to distribute these kits. Is it a one-time supply undertaken during the year? Do external agencies supply it to specific projects in separate phases? What is the memorandum of understanding between the Department of Social Welfare and such external agencies? How frequently is replacement done? Are there provisions for recurring replacement costs in the allotted budget? How is money sanctioned at the meso and micro levels? These are questions that remain unaddressed in this analysis. Moreover, time-use data is required to monetise the hidden costs incurred by urban ICDS medical personnel and rural Child Care Workers towards this component as their pay covers the health costs. Information relating to other activities which form part of this component are also not discussed here due to lack of information.

### **Referral Services**

Referrals of sick children are usually undertaken by the Child Care Centres and Child Development Project Offices. As the urban meso-level has a Medical Officer and ANMs to cater to the health needs of users, no separate material expenditure for referral has been reported. It can be assumed that their pay and allowances are considered as hidden costs catering to this component. However, at the rural-meso level this component has an allocated nature of expenditure as referrals are the prime responsibility of the local Primary Health Sub-Centres in Thalli, Kakkadasam and Anchetty as well as Government Hospitals at Thenkanikottai, Hosur and Bangalore. Since no expenditure is reported on other sub-components, the below table gives a picture of specific items only:

**Table 27**  
**Reported Expenditure on Referrals**

Levels	Items	Total Expenditure
Macro	Nil	Nil
Meso		
Urban	Not known	4,800
Rural	Nil	Nil
Micro		
Urban T.V.K.Nagar	Nil	Nil
Chinnandimadam	Nil	Nil
Rural Thalli Kothanur	Nil	Nil
Marupalli	Nil	Nil

The above table points to reported expenditure of Rs. 4,800 incurred at the urban-meso level for unknown items.

#### **Pre-school Education**

Considered to be the most important component in ICDS, it has joyful play way activities for children in the age group of 2 to 6 years at Child Care Centres. This activity is scheduled for three hours a day and focuses on holistic development of the child. In order to visibly sustain these activities, descriptive and pictorial charts are used to teach alphabets, rhymes, numbers, etc. Sessions under this component includes story-telling, action songs, games and creative art using materials available. Both play materials and teaching-learning aids as described earlier in the framework are used in the Child Care Centres.

**Table 28**  
**Expenditure on Pre-school Education**

Levels	Items	Expenditure (in Rs.)
Macro	Prizes and Awards Teaching Aids	38,44,000
Meso		
Urban	Nil	Nil
Rural	Nil	Nil
Micro		
Urban T.V.K.Nagar	Nil	Nil
Chinnandimadam	Nil	Nil
Rural Thalli Kothanur	Nil	Nil
Marupalli	Nil	Nil

From the above table, it is evident that preschool materials like play materials and teaching-learning aids for this component do not have a regular recurring expenditure. Though the macro level reports an expenditure of Rs. 38,44,000, only Rs. 4,000 was spent mostly on prizes and awards in the general ICDS and the rest was spent on teaching aids and other materials in the SIDA supported projects in four districts. However, materials listed in the framework for this component was actually found at the micro level. Details on the date of purchase and supply, date of replacement and budgetary allotment at different levels are not available and hence it could be considered as a hidden cost incurred by sources unknown. If there is no recurring expenditure for such materials, then how is it that Child Care Workers are able to manage this component? Do they personally spend on this component? Do they mobilise contributions from the community and external agencies? Is there a monthly budgetary allotment in ICDS to cater to the needs of the Child Care Centres? are issues that need further exploration.

### Contributions

External participation and ownership in a program could be established through contributions in both cash and kind. In ICDS, this aspect had no documented evidence but for purpose of this analysis, interviews and secondary data were used to report costs. During this analysis, it was found that contributions were made by external organisations, both Government and other voluntary agencies were sporadic in nature. But for contributions elicited in kind from the community (includes Child Care Workers), the cost was derived using market rates.

**Table 29**  
**Contributions**

Levels	Contributions (in Rs.)			
	Other Departments	Other Agencies	Community*	
			UNICEF	CCWs
Macro	Nil	24,79,525	Nil	Nil
Meso	Nil	Nil	Nil	Nil
Urban	Nil	Nil	Nil	Nil
Rural	Nil	Nil	Nil	Nil
Micro				
Urban T.V.K.Nagar	Nil	Nil	200	Nil
Chinnandimadam	Nil	Nil	200	Nil
Rural Thalli Kothanur	Nil	Nil	Nil	1,700
Marupalli	Nil	Nil	200	1,200

\* Estimated cost of contributions in kind

At the macro level, contributions were in the form of training sessions for ICDS personnel conducted during the financial year 1998-99 and community awareness camps at various levels sponsored by UNICEF. The micro level reports contributions received in kind from Child Care Workers and local leaders which were monetised in this analysis. Such contributions were in the form of vegetables, mats, fruits and painting work to the Child Care Centres. Information was also received from known personnel that the Namakku Naame (literally known as "We Ourselves") Scheme of the Block Development Offices, Department of Rural Development also took up painting and maintenance of Child Care Centres.

**Table 30**  
**Program Costs – A Summary**

Program Costs								
Items		Macro*	Meso		Micro			
			Urban	Rural	Urban		Rural	
			P1	P2	C1	C2	C3	C4
SN	SF	5,19,24,861	3,21,900	7,66,906	5,900	4,590	13,150	7,208
	NM	15,33,03,424	8,16,718	29,82,088	9,018	11,609	22,473	24,478
	NHE	79,92,000	1,500	Nil	Nil	Nil	Nil	Nil
	IM	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	HCU	2,92,000	5,000	Nil	240	240	240	240
	RS	Nil	4,800	Nil	Nil	Nil	Nil	Nil
	NPSE	38,48,000	Nil	Nil	Nil	Nil	Nil	Nil
	<b>Total</b>	<b>21,73,60,285</b>	<b>11,49,918</b>	<b>37,48,994</b>	<b>15,158</b>	<b>16,438</b>	<b>35,862</b>	<b>31,924</b>

\* Inclusive of SIDA expenditure

Key: SN - Supplementary Nutrition; SF – Supplementary Feeding; NM – Noon Meals; NHE – Nutrition and Health Education; IM – Immunisation; HCU – Health Check-ups; RS – Referral Services; NPSE – Non-formal Preschool Education



The above table demonstrates the variations in the expenditure patterns spread amongst different components and levels of ICDS in Tamil Nadu, several of which cannot be explained with the available information. Further it also shows that except for reported expenditure on food (Supplementary Feeding and Noon Meals) and a few other specific items in other components, most other costs are being taken care of financially from other sources. In some cases, it is not even clear who is bearing the cost, while in other cases, the details of how much and how are not known. It is not quite clear on how some of the program activities are being financed in ICDS, and there appear to be hidden costs involved in several program components.

As reported above, the meso level reflects location-based variations in costs. This could be partly due to differences in the coverage of children in the various age categories. It is found that there are three times the number of children in Thalli than in the Chennai centres and the number of Child Care Workers who reach out to the population selected for the analysis is one and a half times. The expenditure patterns do not reflect the proportions exactly.

At the micro level, though there is a minimal variation in the number of children catered to in the program, the expenditure patterns do not seem to be distributed equally, especially in the case of sub-components of Supplementary Nutrition. Is it because of less usage of food? Is it due to poor attendance at the Child Care Centres? Why is it that program reporting and financial reporting are not tallying with each other? Are there gaps in documentation? These issues therefore, have to look for answers based on field realities and community dynamics at the micro context.

As regards community contributions, though there are substantial material evidences of these, there are no financial records to substantiate it.\*

## **5. Steps in Costing – A Consolidation**

In this analysis, as Program Costs are variable in nature while Administrative Costs are fixed in nature, it is important to find out whether there was any impact on costs of the proportionate increase or decrease in the volume of services offered. The capital, revenue – administrative and program expenditure and estimated costs at the macro, meso and micro levels are therefore consolidated to derive the total costs of the ICDS program. This is done in order to calculate ratios and unit costs spent to reach user categories. Now let us look into the various cost components at various levels:

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\* However, Dr. S. Muthiah, Joint Director, Communication and Training Centre, ICDS World Bank III Project was referring to community contributions to the tune of Rs. 142 lakhs during a seminar. However, the nature of contributions and the year of contribution remain unknown.

**Table 31**  
**Step 1: Cost Components of ICDS, 1998-99**

<b>CAPITAL COSTS</b>							
Land							
Buildings							
Vehicles							
Office Equipment							
Furniture and Fixtures							
<b>Total Capital Costs</b>				<b>N.A.</b>			
<b>REVENUE COSTS</b>							
<b>Administrative Costs</b>							
Items	Macro*	Meso		Micro			
		Urban	Rural	Urban		Rural	
		P1	P2	C1	C2	C3	C4
Depreciation	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Rent	95,73,000	1,38,540	N.A.	Nil	Nil	Nil	Nil
Repairs and Maintenance	N.A.	2,000	6,17,830	Nil	Nil	Nil	Nil
Printing and Stationery	10,13,000	44,375	48,444	Nil	Nil	Nil	Nil
Communication	7,34,000	4,647	1,728	Nil	Nil	Nil	Nil
Travel	83,73,000	37,013	81,138	Nil	Nil	Nil	Nil
Rates and Taxes	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Electricity	3,34,000	2,175	3,677	Nil	Nil	Nil	Nil
Advertisement and Publicity	4,12,000	1,500	1,500	Nil	Nil	Nil	Nil
Transport and Loading Charges	61,05,000	20,417	40,000	153	215	306	270
Contingencies	Nil	Nil	Nil	Nil	Nil	2,000	1,500
<b>Total 1</b>	<b>2,65,44,000</b>	<b>2,50,667</b>	<b>7,94,317</b>	<b>153</b>	<b>215</b>	<b>2,306</b>	<b>1,770</b>
<b>Personnel Costs</b>							
Pay and Allowances	33,27,69,000	27,79,324	28,97,466	Nil	Nil	Nil	Nil
Honorarium	8,21,97,000	8,43,255	11,97,039	23,400	23,400	26,556	23,400
<b>Total 2</b>	<b>41,49,66,000</b>	<b>36,22,579</b>	<b>40,94,505</b>	<b>23,400</b>	<b>23,400</b>	<b>26,556</b>	<b>23,400</b>

<b>Program Costs</b>								
<b>Items</b>		<b>Macro*</b>	<b>Meso</b>		<b>Micro</b>			
			<b>Urban</b>	<b>Rural</b>	<b>Urban</b>		<b>Rural</b>	
			<b>P1</b>	<b>P2</b>	<b>C1</b>	<b>C2</b>	<b>C3</b>	<b>C4</b>
SN	SF	5,19,24,861	3,21,900	7,66,906	5,900	4,590	13,150	7,208
	NM	15,33,03,424	8,16,718	29,82,088	9,018	11,609	22,473	24,478
	NHE	79,92,000	1,500	Nil	Nil	Nil	Nil	Nil
	IM	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	HCU	2,92,000	5,000	Nil	240	240	240	240
	RS	Nil	4,800	Nil	Nil	Nil	Nil	Nil
	NPSE	38,48,000	Nil	Nil	Nil	Nil	Nil	Nil
<b>Total 3</b>		<b>21,73,60,285</b>	<b>11,49,918</b>	<b>37,48,994</b>	<b>15,158</b>	<b>16,438</b>	<b>35,862</b>	<b>31,924</b>
<b>CONTRIBUTIONS</b>								
OD	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
OA	24,79,525	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Comm	N.A.	N.A.	N.A.	200	200	1,700	1,400	
<b>Total 4</b>	<b>24,79,525</b>	<b>N.A.</b>	<b>N.A.</b>	<b>200</b>	<b>200</b>	<b>1,700</b>	<b>1,400</b>	
<b>TOTAL COSTS OF ICDS(1+2+3+4)</b>								
<b>Total</b>	<b>66,13,49,810</b>	<b>50,23,164</b>	<b>86,37,816</b>	<b>38,911</b>	<b>40,253</b>	<b>66,424</b>	<b>58,494</b>	

\* Inclusive of SIDA expenditure

Key: SN - Supplementary Nutrition; SF -Supplementary Feeding; NM - Noon Meals; NHE - Nutrition and Health Education; IM - Immunisation; HCU - Health Check-ups; RS - Referral Services; NPSE - Non-formal Preschool Education; OD - Other Departments; OA - Other Agencies; Comm - Community

It is very clear from the above matrix that all items under revenue costs - administrative, personnel and program costs have included both reported and estimated expenditure at all levels. A major portion (67%) of the expenditure at the macro level is mostly concentrated on administrative and personnel components when compared to the program. This is due to the inflation caused by SIDA supported projects in four districts of Tamil Nadu and further break-up of SIDA expenditure from that of the total is reported in Appendix 3.

## Ratio Analysis

Based on the above table, it is important to find out how administrative and program costs have performed in relation to total costs in ICDS and this can be done through a ratio analysis. Details of how this analysis has been done is outlined as a process below in reference to Step 1 described above:

### *Procedure for deriving costs to total*

Administrative Costs = Total 1 + Total 2 ÷ Total Costs of ICDS X 100 = in Percentage

Program Costs = Total 3 ÷ Total Costs of ICDS X 100 = in Percentage

Contributions = Total 4 ÷ Total Costs of ICDS X 100 = in Percentage

**Table 32**  
**Ratio Analysis of Revenue Costs**

Costs to Total	Macro	Meso		Micro			
		Urban	Rural	Urban		Rural	
				C1	C2	C3	C4
Administrative	67%	77%	57%	40%	41%	54%	55%
Program	32%	23%	43%	58%	57%	43%	43%
Contributions	1%	Nil	Nil	2%	2%	3%	2%
Total	100%	100%	100%	100%	100%	100%	100%

*Key: C1 – T.V.K. Nagar; C2 – Chinnandimadam; C3 – Thallikothanur; C4 – Marupalli*

Administrative Costs tend to be higher than Program Costs at macro-level and in both the urban and rural meso levels, though the difference is sharpest at the urban-meso level. It appears that program costs have lesser reach and impact as compared to the administrative costs. But further analysis is necessary to find out whether factors like the period at which these projects were started, the socio-economic background of the clientele, the approach towards implementation and other hidden factors like NGO interventions have had an impact on the project. Hidden leakages in the system may be another indirect causal factor influencing costs. Therefore, management information systems addressing these concerns need to be formulated at this level to gather this kind of information.

At the micro level, the situation is different, since the number of children benefitted by the service in each rural centre is much more than that of the urban, the proportion of rural Administrative Costs (fixed in nature) are quite low when compared to urban centres.

The contributions of local community (including Child Care Workers), local leaders and organisations are reported in kind and have been monetised at the micro level. At the macro level, only expenditure on training sponsored by UNICEF is reported and the ratio of contributions to total costs is quite meagre.

The above tables on ratio analysis reveal that Supplementary Nutrition is shown as the major component emphasised and concentrated upon in the ICDS program. But in reality the picture is quite different. Several other services are offered in an integrated manner and though the benefits reach the ICDS clientele, the costs incurred for these benefits are allocated in other Departmental budgets, or are hidden costs borne by the community, the Child Care Workers and others.

A sample table on contributions by other Departments is shown below:

**Figure 27**  
**Allocated Costs**

<b>Service</b>	<b>Items</b>	<b>Costs budgeted in</b>
Nutritional and Health Education	Seminars Honorarium to resource persons Training expenses for staff Mothers meetings Adolescent girls meetings Awareness camps IEC materials	Department of Health Food and Nutrition Board UNICEF Local NGOs
Immunisation	Vaccination campaigns Home visits Awareness camps Publicity	Department of Health Department of Information and Broad Casting UNICEF Local NGOs
Health Check-ups Referral Services	Medicines, first aid kits, camps	Department of Health
Other Costs	Land Buildings Rent Training Supplementary Nutrition	Departments of Municipal Administration Animal Husbandry Tamil Nadu Slum Clearance Board Tamil Nadu Civil Supplies Corporation Department of Rural Development Industrial Co-operative Societies

Similarly, as mentioned earlier, the major component of Administrative Costs is shown as Personnel, but analysis reveals this to be a highly skewed and misleading picture, since the low remuneration received by the vast majority of personnel indicates a hidden cost or subsidy borne by these workers. If normative wages were paid, Administrative Costs would multiply by several times.

The distinction this section has made between Administrative and Program Costs is helpful in the sense that it separates varied approaches to calculations used in this sample analysis. A mixed combination of reported expenditure, estimated expenditure and monetisation of contributions in kind have been attempted to derive the total costs of the ICDS program as a whole. Experts from various disciplines may argue that this combinational mix as a methodological approach is incorrect. But the rationale behind this flexible attempt is the need to rely on available cost and program documentation in ICDS, within the limitations of time and resources to determine the appropriate costing approach.

### Unit Costs

This refers to per capita costs (incurred on a child) or per Child Care Centre costs. After looking at the expenditure allocation and usage at the macro, meso and micro levels in this study, it is necessary to focus on components. Unit costs in this sample analysis have been worked out at the different levels by calculating per child and per centre costs per day. Such an approach helps in understanding the cost in terms of rupees spent per child in ICDS in Tamil Nadu on varied services and components.

A break up of costs as in the below table according to the child's age would throw more insights on the reality of the utilisation of services by children aged 6 months to 2 year olds and 2 to 6 year olds:

**Table 33**  
**Per Day Unit Costs incurred for a Child in ICDS, Tamil Nadu (in Rs.)**

Level	Program Costs Per Child			Administrative Costs per Child (0-6) (B)	Unit Costs (A) + (B)
	6 Months - 2 years (1)	2-6 Years (2)	Total A = (1) + (2)		
<b>Macro*</b>	0.88	1.44	2.32	2.55	4.88
<b>Meso</b> <i>Urban</i>	1.02	0.94	1.96	3.24	5.20
<i>Rural</i>	0.75	1.29	2.04	1.47	3.51
<b>Micro</b>					
T.V.K.Nagar	0.81	0.31	1.12	0.87	1.99
Chinnandimadam	0.50	1.19	1.69	0.82	2.51
Thalli Kothanur	2.46	0.82	3.28	1.20	4.48
Marupalli	0.85	1.23	2.08	0.93	3.01

\* Inclusive of SIDA expenditure

In the table reported above, the program costs are uniformly lesser than that of the administrative costs except for one Centre at the rural-micro level. There were 1,61,727 children in the age group (6 months to 2 years) at the macro level, 868 at the urban-meso and 2,785 at the rural-meso levels. It is not known as to how these children are spread across different Child Care Centres within each of the meso-level projects. Variations in coverage of children in this age-group always depends on the presence of such children in the target population for which services are intended and an increase or decrease in coverage may influence the percentage of program costs. The percentage of program costs to that of the total costs are higher at the micro level because the actual coverage of children is reported here.

But it is also important to compare the coverage of children in the age group 2 to 6 years. There were 3,14,381 children belonging to this age group at the macro level, 2,406 at the urban-meso and 6,339 at the rural meso levels. It is observed from the above table that though the number of children in the 6 months – 2 year age group is fewer than the 2-5 year group, the unit costs per child is more or less equal. This could be due to the high cost of Supplementary Feeding offered to 6 months – 2 year age group when compared to the cost of noon meals to the 2-5 year olds, rice being the major item.

The per day unit cost for a child is influenced by the number of children reached through effective delivery of services. An increasing or decreasing trend in administrative costs is always influenced by the program outreach. In simple terms, more the number of users, the lesser would be the Administrative Costs and the above table clearly points to increased coverage of children at the rural-micro level. Other reasons for the higher urban costs could be the close proximity of centres in urban areas functioning alongside with NGO and private centres and forcible enrollment of children in primary schools. This was not so in the case of rural where there were less NGO interventions. At both the macro and meso level, the administrative costs are higher than the program costs. This could be due to the impact of personnel costs even at the current low levels of remuneration of fixed nature. Therefore, pressure for reduction in administrative costs for better utilisation of funds here conflicts pressure to increase current low levels of remuneration.

**Table 34**

**Per Day Unit Costs incurred for an ICDS Child Care Centre in Tamil Nadu (in Rs.)**

Levels	Unit Costs (in Rs. Ps.)			Program Costs as % of Total Costs (1/3 X 100)
	Program Cost (1)	Administrative Cost (2)	Total Cost (3)	
<b>Macro (State)*</b>	69.23	141.40	210.63	33%
<b>Meso (Project)</b>				
<i>Urban</i>	44.57	150.13	194.70	23%
<i>Rural</i>	71.33	93.01	164.34	43%

\* Inclusive of SIDA expenditure

Likewise, centre level costs highlight the fact that more than 60% of the total costs are spent towards supervision and monitoring of services. Variations between urban and rural centres are also due to the more extensive rural outreach to children. One of the suggestions to efficiently utilise resources would be to merge some of the urban centres in close proximity to each other. By doing this, the administrative costs could be reduced and at the same time, more number of children could be brought into the net.

### **Gaps in the Sample Analysis**

Although the reported costs indicate the major resources consumed in provision of human services in ICDS, this analysis has underreported service expenditures as listed below and thus it is not possible to get a total picture of the program as a whole at this stage. It would be possible only for the Government to undertake the needed massive study of this nature and bridge the gaps found in this attempt. The following are the gaps in this sample analysis:

- Only children have been taken into the analysis. Services offered to mothers, old age pensioners and adolescent girls have not been considered for want of time and data. If a full-fledged cost analysis of ICDS needs to be done, all the users would have to be included.
- Data has been collected from the performance reports maintained at all levels. The differences in enrollment and attendance rates have not been taken into account. For example, the number of children would vary if this number is calculated based on egg consumption.
- Allocated costs have not been gathered from other Departments.
- Land and building costs could not be ascertained.
- Other capital costs could not be ascertained from the stock registers. Only physical verification has been done and this may not tally with the recorded evidence in stock registers.
- Travel costs borne by the Child Care Workers for transportation of supplementary nutrition items have not figured in this analysis. This may be included to derive the real costs.



- Lack of evidence of community contributions due to lack of documentation is observed.
- Subsidies from the Government have not been included. For example, the noon meal item does have handling and transportation charges which may not be recorded anywhere in ICDS.
- Interdepartmental costs also do not figure in this analysis.
- Costs on play materials and teaching learning aids were not visible anywhere. But Child Care Centres are and have been regularly using such items. These costs can be considered to be borne by unknown sources and have to be researched.

Numbers speak louder than words at times and can help resolve questions about the costs of program delivery. Being able to report the quantitative indices of the results of services in terms of costs can invite criticism too - for example, "Why does it cost so much?" and "Why doesn't everyone get better services?" The best defense against criticisms of cost is an efficient operation that accomplishes the most with the least. Many service systems can benefit from regular internal reports on the amounts of services delivered, their costs, and their short-term and long-term outcomes. Routine feedback of data on costs and outcomes can reinforce components of the service system that work well and can draw attention to areas that need improvement (Yates, 1996).

## Conclusions and Recommendations

Most steps to improve quality of ICDS must realistically be initiated with efficient financial resource re-allocations, both from within the program framework and from other stakeholders. The sample analysis has clearly emphasised the need to carry out a large-scale cost analysis by the Government to bridge the gaps in this sample analysis. By doing so, under-utilisation or over-utilisation of resources through the varied program components can be clearly documented. Areas requiring future investments can be identified at a later stage through cost-effectiveness and benefit studies. Convergence of services has been visible at all levels in this analysis and only the Government can throw more light on its different aspects.

It must also be emphasized that only costs as recorded have been analysed. Due to heavy subsidy on the two major items of expenditure, namely food and honorarium, these are clearly artificially low. The real cost will be much higher if the costs of Noon Meals are borne by ICDS. Similarly, if the Child Care Workers are given remuneration on par with other Government employees doing work of similar levels of skill and responsibility, then there would be a considerable increase in the total costs. The following recommendations could help policy makers reflect more on issues that emerged from this sample analysis:

### Further Studies

Clearly, more research is needed to address the unanswered questions arising from this analysis:

- An in-depth study in the context of comparing early and late started projects could be undertaken to study links between hidden factors contributing to increased or decreased costs and program performance.
- Personnel costs in terms of positions sanctioned and those lying vacant need to be further probed. Analysis of time spent on various duties and program components by the workers could be carried out.
- Cost incurred due to convergence of services may also be considered for further study.
- Component-wise costs and their outcomes need to be assessed in order to see where costs can be minimised and benefits maximised.
- Financial contributions by ICDS personnel and the user community could be compiled. Where it is not possible to do so, monetising time and value of items donated could be an other alternative strategy.
- Cost -Effectiveness and Cost- Benefit studies could be designed to study the pay back benefits of investing in ICDS.

- ▶ Analysis of time spent on each component of ICDS by personnel at all levels could be compared in relation to cost-effectiveness.
- ▶ Missing or hidden costs and subsidies need to be identified indepth on all components of the program. This could point to the extent of unaccounted costs contributed towards ICDS.

## **Guidelines for Policy**

### ***Training***

Training costs are in the nature of allocated costs in the sample analysis. It is not known whether there is a separate head for training in the program component of ICDS. As human resource development is vital to improve the quality of services, training is one of the most important interventions. It cannot be driven by exigencies of meeting targets or spending funds. Emphasis therefore needs to be placed on regular training and regular allocation for this activity in the budget.

### ***Community Participation***

Since food is the major item of expenditure, various devices to secure parental and community contribution in cash or kind toward this item may be considered.

### ***Pay of Child Care Workers***

The Child Care Workers employed as honorary personnel in this program not only do not enjoy any financial or other benefits, but are paid a very low wage in comparison to those performing similar tasks or with similar training and qualifications. As these personnel are supposed to take on the brunt of the workload like maintaining voluminous statistical data and registers for purposes of also assisting the Health Sector, it becomes important to address their pay related issues.

### ***Hidden Costs***

- ▶ Many Child Care Workers inspite of the low status accorded to their inputs, contribute their personal finances for travel related to training and transportation of food to the Centre from the Child Development Project Office. These costs remained hidden in this sample analysis and therefore need to be explored further.
- ▶ There should be specific allocations and disbursement of expenditure for effective implementation of the Preschool Education component. Play materials and teaching-

learning aids found in Child Care Centres could have been the contributions from the Child Care Workers and/or the local community. Though in one sense, this is a positive initiative to mobilise external resources, it may in the long-run lead to more frustration and workload for the workers. Therefore, it is necessary to address these concerns.

- Another aspect for consideration are fuel (firewood) expenses. The present allocation being inadequate to meet the preparation costs of noon meals, a great part of the time of the worker is spent in collecting additional firewood. This becomes an out of pocket expense sometimes causing a lot of resentment in work.
- Vegetables are also inadequate to the needs of the users and in order to ensure smooth functioning of the program, the workers are forced to approach local leaders for contributions in kind. Disgruntlement over these issues may arise if speedy action is not taken. Disbursement of additional funds need to address these aspects of budget for better management.
- It was found that continuous feeding takes place throughout the year including festivals, holidays and Sundays in the Child Care Centre. In this context, the workload of the Child Care Workers has to be given due consideration. As these personnel do not enjoy any paid vacation, leave benefits need to be provided to reduce the workload. This may be considered by working out modalities of feeding along with the user community.
- Vacant positions of program personnel were clearly visible while calculating costs in this study. Efforts could be taken to work out promotion policies and regularise services of Child Care Workers based on their seniority, experience and performance.

### ***Management Information Systems***

Monitoring of expenditure against allotment by alert program managers does not seem to function properly as control and supervision is lacking in many areas. Irregularities in supply of Supplementary Nutrition items need to be detected in all Child Care Centres in relation to the attendance registers. Though monthly indents provide details of food supplies with opening stock and closing balance, trends in consumption patterns need to be analysed. For example, comparison between the enrolled number of children with those who actually attend preschool may be detected by the number of eggs consumed during a particular month. This issue was methodologically faced while calculating costs in this study. It can be rectified only through proper management control systems and record verification.

### ***Increased Allocations***

Teaching-learning aids and play-materials were found to exist in the Child Care Centres and it is assumed that unknown sources have contributed them to the Centres. It is necessary for a detailed exploration to be done further. In this context, there were observations made

that these could have been contributions from the Child Care Workers themselves (Ms. Mina Swaminathan). Therefore, teaching-learning aids, play materials, firewood, telephone and diesel expenditure are some of the items which need further allocation of financial resources. Though it is expected of the Child Care Workers to elicit community contributions, it would be impossible for them to concentrate on too many tasks entrusted by different Departments. Community contributions do need to be obtained but not at the cost of the program.

### ***Replacement***

Vessels, mats, vehicles, other capital items like OHP projector, typewriters and furniture items need to be replaced. Many of these items identified to calculate depreciation were either non-usable or not properly serviced. Though it would be a burden to allocate financial resources for these items, resources could be pooled in from other program sources.

### **In Conclusion.....**

The next task is a complete cost analysis, followed by studies of cost-effectiveness and cost-benefit. Otherwise a mistaken impression could be given that the program is too costly. To this one can only say: *If ECD is costly, try the alternative of not providing ECD. You will find that the alternative would be costlier for society (Jandhyala B.G. Tilak).*

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Letter of Permission from the Government of Tamil Nadu



Social Welfare & Nutritious Meal  
Programme (SW.VII) Department

Fort St George Chennai - 9.

Letter No. 387/SW.7/2000-1 dt : 24.2.2000

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From

Thiru Shaktikanta Das, IAS.,  
Secretary to Government

To

Mina Swaminathan  
Hony. Director  
M.S. Swaminathan Research Foundation  
Project ACCESS  
Action for Child Care and Education Services  
3rd Cross Street, Taramani Institutional Area  
Chennai - 600 113.

Madam,

Sub: Social Welfare - ICDS - Permission and  
Access to use data relating to the costs  
of ICDS Programme - Reg.


Ref: Your Letter dt 4.1.2000

.....

I am directed to convey the permission of the Government and access to use data relating to the costs of ICDS Programme for the last three years for purposes of conducting a study and analysis of the costs of ICDS Programme in Tamil Nadu focussing on ICDS for cost effectiveness as required in your letter cited.

2. I am also to request you to send your reports to Government, Commissioner for Social Welfare and Project Co-Ordinator WB-ICDS III on completion of the study.

Yours faithfully,

  
for Secretary to Government



## Appendix 2

### Cost Inflation Index

(Notification No.S.O.709(E) dated 20/8/1998 read with notification  
No. S.O.773(E) dated 20/9/99)

In exercise of the powers conferred by clause V of the explanation to section 48 of the Income tax act, 1961 the Central Government, having regard to 75% of the average rise in Consumer Price Index for urban non-manual employees, hereby specifies the cost inflation index as mentioned in column (3) of the table below for the financial year mentioned in the corresponding entry in column (2) of the said Table.

S. No.	Financial Year	Cost Inflation Index
1	1981-82	100
2	1982-83	109
3	1983-84	116
4	1984-85	125
5	1985-86	133
6	1986-87	140
7	1987-88	150
8	1988-89	161
9	1989-90	172
10	1990-91	182
11	1991-92	199
12	1992-93	223
13	1993-94	244
14	1994-95	259
15	1995-96	281
16	1996-97	305
17	1997-98	331
18	1998-99	351
19	1999-2000	389

The term financial year refers to a period starting from April to March (1/4/98 to 31/3/1999)

*Illustration:*

Year of purchase of a building – 1983 and the cost is Rs.30,000/-.

The indexed cost of the building during the year 1997-1998 will be Rs.30,000 x 331/116 = Rs. 85,603

This indexed cost is used in Income Tax for purposes like calculating the capital gains arising out of a sale of any fixed asset. This index can also be used to arrive at the indexed cost of an asset for any particular year, if the year of purchase of the asset is known. The formula to arrive at the value is given below:

$$\text{Cost of purchase} \times (\text{Cost inflation index for the year under reference} / \text{cost inflation index for the year of purchase})$$

Note: This indexed cost is used mainly for land and buildings and other non-movable assets. This method is not suited for movable assets like vehicles, machinery and equipment since their value deteriorate with time and usage. For these movable assets the replacement cost method will be more suitable and is widely practiced.

**Costing Methods for Capital Items**

<b>TYPE OF ASSET</b>	<b>METHOD TO BE FOLLOWED</b>
Land and building where appreciation in value is there over efflux of time	Indexed cost method of Income Tax Act, 1961 can be used.
Machinery, plant and equipment, vehicles where there is wear and tear due to use	Replacement cost method is more suitable.

## Appendix 3

## SIDA Expenditure at the Macro Level (1998 – 99)

<b>Administrative Costs</b>	
<b>Items</b>	<b>Macro</b>
Depreciation	N.A.
Rent	25,42,000
Repairs and Maintenance	N.A.
Printing and Stationery	0
Communication	4,63,000
Travel	23,28,000
Rates and Taxes	Nil
Electricity	1,47,000
Advertisement and Publicity	1,99,000
Transport and Loading Charges	28,29,000
Contingencies	Nil
<b>Total 1</b>	<b>85,08,000</b>
<b>Personnel Costs</b>	
Pay and Allowances	13,98,36,000
Honorarium	3,10,20,000
<b>Total 2</b>	<b>17,08,56,000</b>
<b>Program Costs</b>	
Supplementary Nutrition    Supplementary Feeding	73,68,000
Noon Meals	Nil
Nutrition and Health Education	77,81,000
Immunisation	Nil
Health Check-ups	0
Referral Services	Nil
Non-formal Preschool Education	38,44,000
<b>Total 3</b>	<b>1,89,93,000</b>
<b>Grand total</b>	<b>19,83,57,000</b>

