CHAPTER 7
Costs and benefits
TABLE OF CONTENTS

CHAPTER 7
Costs and benefits

7.1 ‘Costing’ the elements
   7.1.1 Policy simulation and costing

7.2 Estimating resource requirements
   7.2.1 Programme design and policy
   7.2.2 Use of simulation models for costing
   7.2.3 Other issues in costing
CHAPTER 7
COSTS AND BENEFITS

What are the costs associated with child-friendly schools, and how do they differ from costs typically linked to schools in a given country context? What are the benefits and added value offered by child-friendly schools, and how do they compare with the levels of investment required to generate such benefits? These critical questions can help a country determine if it will use a child-friendly school model to improve the quality of education in its school system.

7.1 ‘COSTING’ THE ELEMENTS

Costs and benefits of implementing a child-friendly school policy are often the deal makers or breakers. Estimating costs will be based on what key elements are required to make schools child-friendly in a particular country. This depends on how broadly the government intends to implement child-friendly schools and how comprehensive a model it decides to adopt.

Starting from the child rights principles that underpin CFS models, the desired characteristics for child-friendly schools in a country can be determined through a consultative process or by a representative team of stakeholders mandated to execute this task. The list of characteristics can be grouped into categories, which will make the planning process more manageable. Some of the desired characteristics can be grouped, for example, under safety, security and well-being. (See Chapter 5.) Other characteristics can be placed within the area of curriculum content and pedagogic style (see Chapter 6), or location, design, infrastructure and services. (See Chapter 3.) Other characteristics can be grouped under community characteristics, both school as a community and school as part of the community it serves. (See Chapter 4.)

Grouping desired characteristics makes it possible for planners to ask additional questions rather than be restricted to the characteristics generated from basic CFS principles. These include such questions as: Are all aspects of safety, security and the well-being of learners covered? Are some characteristics under curriculum content feasible for a system with a centrally determined curriculum?

After identifying, generating and grouping desired child-friendly school characteristics, the next step is to set standards – both national and local – for these characteristics. This is where quantifying child-friendly school elements begins to take shape. For instance, a desired characteristic may be spacious classrooms where children can move around, work in small groups
or display their work, rather than cramped classrooms where children sit in fixed rows, facing the blackboard and listening to the teacher. Setting standards then requires specifying the minimum floor space (square feet per child) required for a child-friendly classroom.

In the same way, ‘playtime’ standards could be set according to guidelines on how much school time (hours or periods per week) should be devoted to recreational activities. Similarly, standards can be set for staffing by determining the basic courses (in-service and pre-service) required for teachers to become ‘child-friendly-school trained’ or by recommending a ratio of pupils to each ‘child-friendly-school-trained’ teacher. In all cases, setting standards is not meant to establish a rigid blueprint for implementation but to provide a quantifiable basis for estimating the costs of making schools child-friendly in a given education system.

Once child-friendly school standards have been set, the next step is to use these as the main variables in determining the cost of making schools child-friendly over a given period of time. Planning for child-friendly schools in this way may focus on all schools in general or in some order of priority, perhaps focusing on the most dysfunctional schools first. It may also concentrate on only particular categories of schools as a matter of policy, such as rural schools or schools in minority communities. Whatever the policy or focus, these desired characteristics and standards provide the basis for estimating costs. The plan could be about specific milestones, such as a goal that 20 per cent of schools become child-friendly annually, or about a long-term goal, e.g., all schools will be child-friendly in five years.

In general, there are three basic requirements for estimating the cost of making schools child-friendly:

- Data on the current state of the main variables;
- Monetary values that can be readily assigned to these variables;
- Projections of data and monetary values for future child-friendly school scenarios.

Typically, data on the condition of the main variables can be obtained through school surveys, situation analyses, research studies, desk reviews of well maintained records in ministries of education and other sources. For efficiency, data should be grouped by appropriate categories for the main variables. In looking at child-friendly school design and infrastructure, for instance, once the physical state of existing schools has been catalogued, the child-friendly school standards set for this variable can be used to gauge the design and infrastructure of existing schools. Analysis is more efficient when these schools are grouped based on whether they require major reconstruction and full-scale refurbishment, require modest reconstruction and partial refurbishment, or require minor refurbishment and upgrading. The number and percentage of schools requiring these different treatments, together with the estimated unit cost for each treatment category, provide a useful estimate of the total cost for making all schools child-friendly in terms of design and infrastructure.

Likewise, data on the teaching force can be used to determine the number and percentage of teachers who require major training in child-friendly school methodologies, require training in some aspects only or just require
a brief refresher course. This data, together with the estimates of what it costs to provide a teacher with training (unit cost) in each of these categories, can then be used to provide a picture of the total costs of having all existing teachers qualified by becoming certified or recognized as child-friendly-school trained.

Monetary values can be readily assigned to variables when there are standard ways of determining unit costs for use in total cost estimates. In some cases, this is fairly routine because unit costs can easily be obtained from existing practices in education. This is the case with school construction and refurbishment. It is relatively easy to estimate the unit cost for a child-friendly classroom (per square foot) by using available cost data on materials and type of contract, e.g., community labour or a commercial contractor, and adjusting these figures for child-friendly school features and modifications. In the same way, the cost of training each teacher (unit cost) through various types of courses can be estimated from records or simple calculations. These unit costs can then be adjusted if necessary to take into account child-friendly school requirements in the training course.

The main problem with costing child-friendly school elements arises in cases where it is not straightforward to assign monetary values to the variable(s) in question. This is the case with some characteristics relating to school-community links. It is not clear how to assign monetary values to these links; thus, the use of proxies may be necessary. What does it cost, for example, to set up and maintain a vibrant parent-teacher association, including training school committee members and sensitizing teachers to the school’s accountability to the community it serves? Does this cost vary with the number of pupils (unit cost per pupil), or does cost vary with size and type of school (cost per school or different categories of schools)?

The issue is further complicated by the fact that part of the cost associated with this kind of link may also be embedded in other areas, such as design, infrastructure and services. This would be the case if schools are deliberately constructed to provide space for community activities and supplementary services, such as use of the school’s classrooms for adult literacy classes, access to the sports field for community events, use of the school borehole for water supply to the community or involvement of parents in preparing school meals for the children. Despite the complications and difficulties involved in assigning monetary values to these elements, it is important that they are given full consideration during planning, and that unit costs are estimated through proxies when necessary. Often it is the less tangible elements, such as links between schools and their communities, that determine the extent to which schools can be considered child-friendly.

Once the necessary data sets and unit costs have been developed, some projections that reflect a future child-friendly school scenario should be
formulated. This is important because child-friendly schools cannot be implemented instantaneously, and data and unit costs are subject to change over time, as are changes in enrolment, staffing and currency value. Expanding enrolment will increase the cost of those elements that are dependent on the number of pupils, just as additional schools to accommodate this expansion will increase the costs of elements that are dependent on the number of schools. Existing teachers and school managers will retire or leave the profession and need to be replaced by new teachers, just as the cost of providing training for these teachers and learning materials in schools will also change over time. As thoroughly and accurately as possible, all probabilities must be factored into cost projections for making all schools child-friendly over a given time period.

7.1.1 Policy simulation and costing

Simulation models are conventional ways of using data on the existing system, along with unit costs, to make projections and calculate total costs. These models can be used for different purposes and can readily be adapted to cost estimates for implementing a child-friendly school policy. Simulation is used to understand the behaviour of the education system when certain key variables and conditions change in value. In this sense, simulation models can be used for advocacy by showing how the education system would behave if certain policy changes are implemented versus if such changes are not implemented. This is essential for evaluating such major policy changes as ‘making all schools child-friendly’. They may also be critical in negotiations with interest groups – for instance, with teachers’ unions eager to understand the impact of policy on teachers.

Simulation models can show how learners, schools and the education process would change as child-friendly school elements are implemented. For instance, while there may be additional costs involved in changing the system, there also are likely to be gains in efficiency, school governance and community benefits. Strengthening those factors will most likely improve overall quality and outcomes of education.

Apart from advocacy with the various stakeholders whose support is vital for establishing and implementing a child-friendly school policy, simulations can be used to assess the feasibility of the policy itself in terms of overall resource implications (finance, human resources, etc.). Through this type of exercise, it is possible to make critical decisions on the scale and scope of child-friendly school implementation that will be affordable and sustainable for a country. Officials can review the quality parameters, for example, and adjust them in line with the principle of progressive realization. (See Chapter 6.) A country can then accomplish what is affordable now while aiming for higher quality standards in the future. A simulation exercise can identify and apply ways of reducing costs without compromising basic child-friendly school principles. This is helpful in both policymaking and design of implementation strategies for making schools child-friendly.

The Education Policy and Strategy Simulation Model (EPSSim) is a UNESCO-designed tool with a UNICEF-supported module for costing child-friendly schools. It is generic and can be adapted to country-specific national education systems. It captures the full needs of the education sector, covers all subsectors from pre-primary through higher education, including non-formal schooling, and includes costing of
critical demand-side interventions, such as HIV and AIDS impact and response, and teacher training. EPSSim has clear categories of inputs, coverage and interventions, is gender-disaggregated and separates public and private coverage.

The model estimates year-to-year needs in terms of teachers and staff, learning materials, classrooms, facilities and training required to achieve national goals and policies; it projects the cost implications (divided between recurrent and capital costs); and it estimates the resource availability of the education sector and financial gaps while accounting for domestic revenue and household and donor contributions.

In this ‘demographic’ model, educational needs are the decision variables. The three stages are: (a) collection and input of baseline data, (b) setting policy goals, targets and options, and (c) projection of results. The model uses an Excel spreadsheet with separate parallel columns for input of baseline data and targets for each category. Projections are displayed on the remainder of columns. (See Table 7.1 below.) Formulas are already in place, so the user only has to fill in the yellow cells and the model makes calculations automatically.

Depending on the country, further adaptation of these formulas may be necessary. Once the country’s budgetary framework data are entered, the model calculates the resource gaps. It also generates concurrent scenarios to compare results and guide policy dialogue and decision-making that can strike a sustainable balance between projected resource requirements (teachers, materials, classrooms) and feasibility and affordability. Policy options can be changed to immediately see the potential impact of both quality and costs in order to assess policy decisions and make necessary adjustments.

The tool can be used at all stages of strategic planning, from sector analysis to policy formulation, action planning and monitoring. It allows for informed, evidence-based policy dialogue and negotiations with ministries of finance, donors, partners, civil society, teachers’ unions and so forth.

TABLE 7.1

![Table 7.1](image-url)
7.2.1 Programme design and policy

In addition to serving as a costing tool, EPSSim can play a role in policy formulation and programme design. As countries endeavour to make their schools child-friendly, EPSSim will help them narrow the gap between policy decisions and likely results; revise their education plans and policies and make necessary adjustments; design long-term strategies and accurately cost their sector plans to estimate funding gaps; and weigh policy options and allocate resources in response to child-friendly school requirements.

The EPSSim model includes a section on child-friendly schools. This section is linked to the rest of the model, so targets are drawn from the system as a whole. The model contains a list of quantifiable options for child-friendly school features that can enable countries to identify the resource needs of schools, as well as the actions necessary to create enabling and protective environments. The tool can serve as an expanding checklist or guideline of key features based on national child-friendly school standards and can generate the estimated costs involved in implementing such standards.

In general, child-friendly school interventions in the model are divided into the following categories:

- Safety, security and well-being of learners and teachers;
- Schools as a community and schools in the community;
- Child-friendly curriculum (content, teaching, learning methods);
- Infrastructure and design (facilities, equipment, resources).

Under each category, countries can select from various items that make schools more child-friendly to determine the resource requirements and gaps. This exercise can help ministries of education determine such requirements as the number of schools to include health care, school feeding, counselling, safe water, trained staff for emergency preparedness, protective school spaces, gender-sensitive curricula, flexible furniture, new latrines and playgrounds in annual incremental needs.

7.2.2 Use of simulation models for costing

Once the difficult-to-quantify resources such as safe environments have been estimated on the basis of proxies, other elements such as skilled staff, materials and infrastructure are more readily calculated, and the total requirements can then be fully ‘costed’. In each case, under the targeted number of schools or students to be covered, unit costs are applied as a means of estimating the resource requirements and funding gaps over a specified number of years.

Using infrastructure, for instance, the status of existing schools is entered first (expressed as the percentage of schools that need to be refurbished), then targets are set in terms of the percentage of these schools to be converted to child-friendly school standards during the programme period. The projected needs based on the percentage of facilities to be reconstructed, along with the input of unit costs, determine the resource requirements and gaps.
## TABLE 7.2A: RESOURCE PROJECTION

<table>
<thead>
<tr>
<th>Students</th>
<th>Unit costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students having access to gender-sensitive and relevant textbooks</td>
<td>$3.00 &lt;= per pupil unit cost</td>
</tr>
<tr>
<td>Students having access to hygiene, HIV prevention, preventive health life skills programmes</td>
<td>$7.00 &lt;= per pupil unit cost</td>
</tr>
<tr>
<td>Students having access to curriculum on life skills for peacebuilding, environmental protection, etc.</td>
<td>$7.00 &lt;= per pupil unit cost</td>
</tr>
<tr>
<td>Students having access to curriculum on emergency prevention, preparedness and response</td>
<td>$3.00 &lt;= per pupil unit cost</td>
</tr>
<tr>
<td>Teacher students with additional teacher training for child-centred pedagogy</td>
<td>$40.00 &lt;= per pupil unit cost</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Staff</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers receiving in-service training on child-centred pedagogy</td>
<td>$50.00 &lt;= per teacher unit cost</td>
</tr>
<tr>
<td>Teachers using instructional/teaching materials on child-centred pedagogy</td>
<td>$10.00 &lt;= per teacher unit cost</td>
</tr>
</tbody>
</table>

## TABLE 7.2B: SERVICES PROJECTION

<table>
<thead>
<tr>
<th>CFS START YEAR</th>
<th>POLICY OBJECTIVES</th>
<th>PROJECTION RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safety, security and well-being</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% having access to health checks (vaccination, deworming, monitoring adherence to medication, etc.)</td>
<td>10%</td>
<td>30%</td>
</tr>
<tr>
<td>% receiving health kits</td>
<td>10%</td>
<td>40%</td>
</tr>
<tr>
<td>% receiving proper nutrition (including school meals)</td>
<td>5%</td>
<td>60%</td>
</tr>
<tr>
<td>% having access to counselling (violence, disabilities, HIV and AIDS, orphanhood, etc.)</td>
<td>5%</td>
<td>60%</td>
</tr>
<tr>
<td>% receiving training in emergency preparedness and prevention</td>
<td>0%</td>
<td>60%</td>
</tr>
<tr>
<td>% having access to safe transportation</td>
<td>2%</td>
<td>25%</td>
</tr>
</tbody>
</table>
Costing related to safety, security and the school population’s well-being can be done in a similar manner. Under this category, the resource requirements related to the safety, security and well-being of students, teachers and other school staff can be projected. Safety and security elements would include access to health care, nutrition, emergency preparedness, non-violence in schools and safe transportation. Tables 7.2A and 7.2B provide an overview of some items that can be projected in relation to students. Once the number of students in the system is determined, unit costs are entered to calculate overall costs for this category. Countries may decide to include a certain number of these items in their policies or add others to adapt it to their context and needs.

7.2.3 Other issues in costing

There are special considerations for estimating additional costs and benefits related to mainstreaming child-friendly schools in the education system. Some child-friendly school elements may not be readily quantifiable for cost purposes yet need to be part of mainstreaming.

Institutional ethos is one such complex element, as it involves maintaining, strengthening or changing the rituals, routines, norms, values and activities that shape the everyday character of the school as an institution and learning community. How this is done varies from school to school. But for mainstreaming purposes, it may be best to amalgamate ethos by school type, such as religious, private, community or government. It then becomes a matter of estimating costs for key components. These may include extra-curricular activities, space and facilities for daily assembly, facilities and equipment for major sporting events, grants to cover annual festivities and school anniversaries, joint activities with the local community, or events and anniversaries involving the community of past students.

Once a complex element like institutional ethos is broken down into components, it becomes possible to quantify and cost the mainstreaming requirements for this aspect of child-friendly schools. Some of these costs will be provided for in the education budget, while others will be met by local communities, associations of past students or other outside organizations.

By using a suite of simulation models, it should be possible to interpret such complex child-friendly school elements and then review their cost implications. Setting standards in this way enables planners to specify what every school ultimately requires, linked to an appropriate target ratio, such as per pupil, classroom or school. The goal is to guide policymaking and then help translate policy into practice through projections based on feasible child-friendly scenarios that can be implemented over an agreed-upon period of time. A country may decide to make all of its schools child-friendly over a plan period, with clear standards as to how comprehensively the child-friendly school principles are applied. It may decide to make some categories of schools (e.g., in poor rural areas) child-friendly during the plan period, while expecting schools in affluent communities to take on the process of becoming child-friendly through their own efforts. Whatever the policy decision, successful implementation would depend on national capacity as well as the level of resources required in relation to available budgets and external financial assistance. In all, quantifying, costing and projecting key variables for making schools child-friendly will be critical. Education planners will therefore be central in all efforts to develop and implement child-friendly school policies.